



NATIONAL BESTSELLER

Taking Charge of Your Fertility

FULLY
REVISED AND
UPDATED


• 20th Anniversary Edition •

The Definitive Guide to Natural
Birth Control, Pregnancy Achievement,
and Reproductive Health

TONI WESCHLER, MPH



TAKING CHARGE OF YOUR FERTILITY

 *The Definitive Guide to
Natural Birth Control,
Pregnancy Achievement,
and Reproductive Health*

20th Anniversary Edition

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WILLIAM MORROW

An Imprint of HarperCollins Publishers

Dedication

*In loving memory of my mother,
Franzi Toch Weschler,
whose strength always amazed me.*

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Dedication

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Acknowledgments

They say women are blessed with the ability to forget the pain of childbirth so they will be able to have more children later. I often wonder whether the same principle applies to the challenges of writing a book of this magnitude. Had another author warned me about what a monumental task it would be, I'm not sure I would have been so insane as to pursue the dream. And even now, revising the book for the third time since the book was first released 20 years ago, I am struck once again with the age-old question: "What *were* you thinking?"

But I suppose writers are a deluded bunch, or perhaps their memories are simply fried from their projects! Either way, I've come away from writing both the original and revised editions having experienced the gamut of human emotion, from total frustration and burnout to incredible joy and pride. Along the way, as the following list will attest, I've had the privilege of being supported by numerous people to whom I owe a debt of gratitude.

To my wonderful editor at HarperCollins, Emily Krump, for sticking with me during this arduous process and graciously advocating on my behalf. I hope that now that the revision is finally finished, you'll be able to take pride in your involvement in this incredibly challenging project. And to the wizards in the production department, Heather Finn and Susan Kosko, for putting up with all of my crazy-making instructions to assure that this book is once again as appealing and user-friendly as possible.

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To Kelly Andrews, Ethan Lynette, Suzanne Munson, Sarah Dohman, Whitney Palmerton, Lester Meeks, and Jake Harsoch, all of whom have been a joy to work with. Thank you for welcoming me so warmly!

To the scores of clients and readers who continue to swell my “Thank You” file with their poignant letters of gratitude for the ways my book has apparently changed their lives. It is this type of appreciation which buoys me when I occasionally feel disheartened by a medical community which has yet to fully grasp the scientific validity and endless benefits of the Fertility Awareness Method. And to those who took the time to write me the most eloquent and touching letters expressing how the book impacted their lives to such an extent that they changed careers—especially to Alyssa Mayer for earning her Ph.D. in public health!

To my cherished friends who witnessed me go from a fairly gregarious and amiable person to a hermit who rarely came up for air while working on this edition. You helped me maintain a sense of perspective when I kept wondering whether I would ever have a life again. Especially Aud, Cath, Susan, and Sandy.

To Roger, who more than anyone, has had to peel me off the floor countless times when I thought the end would never arrive, and who sacrificed his personal space by negotiating around stacks of research studies, all manner of women’s health illustrations and copy-edited manuscripts, only to eat on the kitchen bread board lest he disturb any of the color-coded stacks. Without his understanding support for months and months on end—heck, who am I kidding, years on end—I would never have been able to complete

this book. So thank you, thank you, thank you.

To my two older brothers, Lawrence Weschler, whose remarkable literary achievements gave me the inspiration to write this book, and Robert Weschler, for being my own devil's advocate who kept me constantly on my toes.

Finally, and most important, to my younger brother, Raymond, without whom I could never have written this book. And even though we often rued the day that we ever started working together on this daunting project over 20 years ago, he was an indispensable editor, researcher, and organizer, as well as an endless source of wit and moral support throughout this undertaking. The fact is that we talked about sharing authorship credit, but he insisted that the book came from my passion and experiences, not his, and ultimately it was written with my voice. Perhaps, but truth be told, Raymond was my co-writer. I am eternally grateful to him for all he's done, and most especially, for once again agreeing to work with me on this latest edition. In so doing, he showed that despite all the grief we've given each other, determined siblings can get things done that no family counselors would've ever thought possible!

The publisher and author do not guarantee the method of birth control or pregnancy achievement described in these pages. As a contraceptive method, it is highly effective, but only when the relevant instructions are strictly followed. Like other effective contraceptive methods, this method is not foolproof, and there is a chance that the method will fail. The ideal way to learn about the Fertility Awareness Method is through a qualified instructor or counselor. In addition, it should be clear that natural methods of contraception do not offer protection of any kind against AIDS and other sexually transmitted diseases.

This book does not purport to take the place of qualified medical advice and treatment. Thus, any application of the recommendations set forth in the following pages is at the reader's own risk. Please contact your doctor, a Fertility Awareness instructor, or both whenever appropriate. While every effort has been made to provide the most accurate and updated information, the publisher and author cannot be responsible for any error, omission, or dated material.

The anecdotes presented in this book are true and accurate. However, except when requested, the names have been changed to maintain anonymity.

Preface to the 20th Anniversary Edition

When I first wrote *Taking Charge of Your Fertility* 20 years ago, women had rarely heard of the concept of charting their menstrual cycles. The idea that they could use the information they gleaned from charting to practice effective natural contraception, maximize their odds of getting pregnant, and finally take charge of their gynecological and sexual health was completely foreign. So my goal was to spark a grassroots movement among women frustrated with the lack of practical information they were taught about their bodies. As I had hoped, the material contained in these pages struck a chord with hundreds of thousands of women.

In the years since *Taking Charge* was first released, I've been humbled by the effusive reactions women have had toward the book. So many readers have written me personally to say how this information has changed their lives—they're incredibly excited and encouraged but also often equally frustrated that this information was not shared earlier either in school or during doctor visits.

Which raises an important key to understanding the book. Through teaching practical knowledge about women's menstrual cycles, it may have appeared that I was disparaging doctors in the process. So let me set the record straight: Given the obvious demands of physicians' responsibilities as well as the limited time they can spend with their patients, it would be impossible for any doctor to know the intimate details of your cycle, and that's especially true if you yourself don't know them! *TCOYF* is in large part about learning how to be able to advocate for yourself so you can work with

your doctor, for at its heart, this book centers on the concept that knowledge is power.

It is also important to keep in mind that *Taking Charge* has been written for women with divergent objectives—those who want to avoid pregnancy and those who want to get pregnant. Because of this, the book is structured to be read both as a whole and as individual chapters when a situation or need arises. As a result, you may find that some key information is repeated. This is to highlight the importance of those topics, but also to ensure readers are fully educated even if they use only a portion of the text. Ultimately, the ability to understand your reproductive and gynecological issues throughout your life is truly empowering.

My hope is that even if you have read an earlier edition of this book, you will now benefit from this new 20th anniversary edition of *Taking Charge*. Generally speaking, women's cycles have remained the same across time, but our understanding of the underlying biology has continued to improve. So, for those who already own an earlier version, you will find numerous additions and modifications throughout, including:

- an expanded 16-page color insert
- improved fertility charts
- a revised and updated chapter on the extensive advances taking place in assisted reproductive technologies (ART)
- a more detailed sexuality chapter for both you and your partner
- six new chapters, including:

- ~ Three Prevalent Conditions

- All Women Should Be Aware Of

- ~ Natural Ways to Balance Your Hormones

- ~ Now That You Know: Preserving Your *Future* Fertility

- ~ Dealing with Miscarriages

- ~ Idiopathic Infertility: Some Possible Causes When They're Not Sure Why

- ~ Causes of Unusual Bleeding

The way in which women learn about their bodies and chart their cycles continues to evolve, just as our biological knowledge and reproductive

technology do. And so, with this latest edition of *Taking Charge*, I hope to keep apace of these changes so that each new generation of women will continue to be more educated, more self-aware, and simply more cycle-savvy than the one before.

For additional information, forums, and the *Taking Charge of Your Fertility* charting app, please visit www.tcoyf.com.

—Toni Weschler, MPH, 2015

Introduction

I still cringe when I recall my college years and what ironically led me to pursue the field of fertility education. I can't count the number of times I ran off to the gynecologist with what I thought was a vaginal infection. Most women will agree that no matter how many times they've had a pelvic exam, the experience is usually a drag and sometimes even traumatic. Yet I remember returning, seemingly every month, with the same apparent problem. As usual, I'd be sent home with an unsatisfying assurance that "there's really nothing there." So I would leave, feeling like a hypochondriac, only to meekly return when I had what appeared to be the signs of yet another infection.

Along with my frustration at this recurring problem were the inevitable side effects of the various methods of birth control I tried. If I wasn't dealing with weight gain and headaches caused by the pill, I was enduring urinary tract infections from the diaphragm or irritation from the sponge. Yet every time I asked the gynecologist for a natural, effective alternative to the dismal selection of birth control methods available, I was cynically informed that the only "natural" method was Rhythm, and everyone knew that that didn't work. So back to Square One I would go, seeming to have infections all the time and without an acceptable method of birth control.

It wasn't until years later, when I took a class called Fertility Awareness, that I realized I was absolutely healthy all of that time. What I had been perceiving as infections was in fact normal cervical fluid, one of the healthy signs of fertility that all women experience as they approach ovulation. But since conversing about one's vaginal secretions is hardly your typical topic of

social chitchat, I had no idea that my experiences were normal, universal, and—perhaps most importantly—cyclical.

Because of misleading and inadequate health education, women are rarely taught how to distinguish between normal signs of healthy cervical fluid produced every cycle and the signs of a vaginal infection. What are the consequences of such a basic omission in our upbringing and education? In addition to the unnecessary expense, inconvenience, and anxiety that women often experience, such ignorance can also lead to lowered self-esteem and confusion about sexuality.

My negative gynecological experiences gradually led to an interest in women's health that evolved into a real passion. It was that passion that ultimately compelled me to interview for a position as a health educator at a women's clinic—a disastrous experience that in hindsight provided the final catalyst for my decision to pursue fertility education as a career.

While I sat in the waiting room anticipating my interview with the clinic director, my eyes wandered, glancing over the all-too-familiar paraphernalia of all women's clinics: posters warning against spreading sexually transmitted infections, charts comparing methods of birth control (with their inherent side effects and risks in tiny print), and plastic models of the female reproductive system.

I remember being suddenly struck with the futility of my situation. Here I was, applying to be a health educator in a women's clinic, with absolutely no training in the field. What was I thinking? While fidgeting, I noticed a brochure about classes on the Fertility Awareness Method that were available at the clinic. I could not believe that this supposedly reputable clinic seemed to be teaching the discredited Rhythm Method. I was in a dilemma. Should I risk losing this coveted position by expressing my dismay, or should I keep my mouth shut to get the job?

In the end, I would have felt dishonest if I said nothing. My heart skipped a beat when the clinic director called my name. The pressure was on. The director was cordial, but I barely gave her a moment to introduce herself before I blurted out, "I don't understand why you teach Rhythm here. Everybody knows it doesn't work!"

"Oh really? We teach *what*?" she inquired with obvious surprise. "I noticed your brochure here about the Fertility Awareness Method. Isn't that the same thing?" I muttered shyly. She looked a bit irritated and responded,

“Actually, Toni, your lack of knowledge about such an important facet of women’s health wouldn’t bode well at our clinic.”

Needless to say, I didn’t get the job. But that embarrassing experience years ago helped transform my perspective about women’s health care. After swallowing my pride, I took the clinic’s class on Fertility Awareness—and was amazed. What I learned is that not only was it possible for me to take control of my cycles, but I no longer needed to feel uncertain about various secretions, pains, and symptoms. I could finally understand the subtle changes I experienced every month. I could place my menstrual cycle in the context of my overall health—both physiological and psychological. And best of all? No more unnecessary trips to the gynecologist.

By taking just a couple of minutes a day, I was able to utilize a highly effective method of natural birth control in which I could accurately determine those days of my cycle when I was potentially fertile. On the flip side, if I wanted to get pregnant, I could avoid the guessing game so many couples play by learning precisely when to time intercourse. I could also identify problems for myself that could potentially impede my getting pregnant. And the fact is, so can you.

Probably the best thing to come out of my years using the Fertility Awareness Method was the privilege I felt in being so knowledgeable about a fundamental part of being a woman. I no longer questioned when I would get my period. I always knew (including when I’d get what would turn out to be my very last one!). I knew what to expect physically and emotionally at different times in my cycle. I also gained confidence in a way that was reflected in other areas of my life.

Your menstrual cycle is not something that should be shrouded in mystery. By the time you reach the end of this book, I hope that you will also experience the liberation of feeling in control of your body. Beyond its practical value in giving you the tools to avoid or achieve pregnancy naturally and to take control of your gynecological health, this information about your cycle and body will empower you with numerous facets of self-knowledge that you rightly deserve.

PART  ONE

*B*REAKING
FERTILE GROUND:
TOWARD A NEW WAY
OF THINKING

Fertility Awareness: What You Should Know and Why You Probably Don't

*H*ow often have you heard that a menstrual cycle should be 28 days and that ovulation usually occurs on Day 14? This is a myth, pure and simple. And yet it's so routinely accepted that, sadly, it's responsible for countless unplanned pregnancies. Furthermore, it prevents many couples who hope for a pregnancy from attaining one. Much of this fallacy is a legacy of the obsolete Rhythm Method, which falsely assumes that individual women have cycle lengths that, if not precisely 28 days, are reliably consistent over time. The result is that it is nothing more than a flawed statistical prediction using a mathematical formula based on the average of *past* cycles to predict *future* fertility.

In reality, cycles vary among women and often within each woman herself. Keep in mind, though, that normal cycle lengths are generally 21 to 35 days. The myth of Day 14 can affect individuals in the most astounding ways, as you can see by this story some religious clients of mine told me decades ago:

Ilene and Mick were virgins when they got married on May 21. They wanted to start a family soon after their wedding, so they had their joint medical insurance start on May 15. When they discovered that Ilene had gotten pregnant on their honeymoon, they were pleasantly surprised that it happened so fast. Imagine their shock when the

insurance company refused to cover the pregnancy and delivery, claiming that since her last period started on April 19, she must have gotten pregnant about three weeks before the wedding.

“That’s impossible,” she insisted, “we were both virgins until our wedding day.” She tried to explain to them that her cycles had become quite long and irregular since she started jogging and dieting in order to be a “picturesque bride.”

The insurance company wouldn’t hear of it. They adhered to the frequently used pregnancy wheel, the calculating device that doctors rely on to determine a woman’s due date (see [A Typical Pregnancy Wheel](#) of the color insert). It’s based on the assumption that ovulation always occurs on Day 14. Ilene lamented, “We were sunk. How does one prove virginity in a courtroom? And why should it be anyone else’s business?”

Needless to say, the Day 14 myth had very expensive consequences for Ilene and Mick. The only consolation they took from their experience was the fact that their son was born just when they expected, three weeks after the insurance company’s due date! He was, in the words of Ilene, “worth all the trouble anyway.”

Luckily, with advances in our understanding of human reproduction, we now have a highly accurate and effective method of identifying the woman’s fertile phase: the Fertility Awareness Method (FAM). Fertility Awareness is simply a means of understanding human reproduction. It’s based on the observation and charting of scientifically proven fertility signs that determine whether or not a woman is fertile on any given day. The three primary fertility signs are cervical fluid, waking temperature, and cervical position (this last one being an additional sign that simply corroborates the first two). FAM is an empowering method of both natural birth control and pregnancy achievement, as well as an excellent tool for assessing gynecological problems and understanding your body.

✂️ WHY THE FERTILITY AWARENESS METHOD IS NOT BETTER KNOWN

As you read in the introduction, probably the greatest resistance to the acceptance of FAM has been its dubious misassociation with the Rhythm Method. Furthermore, because natural methods of birth control are often practiced by people morally opposed to artificial methods, FAM tends to be falsely perceived as only being used by such individuals. But, in fact, women from all over the world have been drawn to FAM simply because it's free of the chemicals associated with hormonal methods such as the pill. Just as important, it minimizes the frequency with which they might have to choose preventive methods that are unpleasant, impractical, or lacking in spontaneity. Many of these people tend to be oriented toward leading a natural and health-conscious life in other ways besides taking control of their fertility and reproduction.

It's true that many religious people have discovered the benefits of Fertility Awareness, though they may technically practice Natural Family Planning (NFP). The primary distinction between FAM and NFP is that those who use NFP choose to abstain rather than use barrier methods of contraception during the woman's fertile phase. But regardless of the differing values that often divide users of FAM and NFP, all are drawn by the desire for a natural method of effective contraception.

FAM's Conspicuous Absence from Medical School

Still, if FAM has so many benefits as *both* a method of birth control and an aid to getting pregnant, why, then, is it not better known? One of the most crucial and mystifying reasons that people have rarely heard of it is that doctors are still seldom taught a comprehensive version of this scientific method in medical school. It's amazing to think that women who practice the Fertility Awareness Method are often more knowledgeable about their own fertility than gynecologists who are trained to be experts in female physiology!*

Years ago, when I taught at a women's clinic, the entire staff except one doctor took my seminar to use FAM as a method of contraception. One day, the one who had never attended pulled me aside and whispered, "Toni, I'll be honest with you. I don't refer my patients to your classes." "Oh really, why is that?" I casually asked, trying not to act surprised. "I got pregnant using your method and haven't trusted it since," she replied. "You're kidding! Did you take a class elsewhere, and what rules did you use?" I inquired. "What do you mean, what rules?" she asked. "You know . . . did you observe the rules for both waking temperature and cervical fluid or just one of them?" She looked at me totally confused, as if she had no clue what I was asking her. It was then that I grasped just how widespread ignorance of Fertility Awareness was in the medical community. Even among many doctors, I realized, Fertility Awareness still meant looking at past cycles to predict future fertility.

What is especially remarkable about the glaring omission of Fertility Awareness education from medical school curricula is the fact that the method's effectiveness is based on purely biological principles, all discussed in greater detail in [Chapter 4](#). They include the functions of numerous hormones, such as FSH, estrogen, luteinizing hormone, and progesterone, all of which have been scientifically proven. And because the Fertility Awareness Method is useful not only for birth control and getting pregnant, but for promoting gynecological health in general, it's even more surprising that this information is not part of a complete medical education.

Indeed, FAM can be a vital aid to doctors and their patients in diagnosing a number of conditions, including:

- anovulation (lack of ovulation)
- late ovulation
- short luteal phases (the phase after ovulation)
- infertile cervical fluid
- hormonal imbalances (such as polycystic ovarian syndrome, or PCOS)
- insufficient progesterone levels
- occurrence of miscarriages

Another advantage of charting fertility signs is that it facilitates diagnosis of gynecological problems. Women who chart are so aware of what is normal for them that they can help their clinician determine irregularities based on their own cycles. Examples of potential gynecological problems that can be more easily diagnosed through daily charting include:

- irregular or unusual bleeding
- vaginal infections
- urinary tract infections
- cervical anomalies
- breast lumps
- premenstrual syndrome
- miscalculated date of conception

By not being taught FAM, doctors are denied an excellent tool with which they could better counsel their female patients. Moreover, this can often result in unnecessary, invasive, and frequently expensive tests to diagnose an apparent menstrual problem. Of course, if women were taught how to chart for their fertility-related health, they would not need to visit their doctor nearly as often, and substantial numbers of needless medical procedures could be avoided.

As the previous list should make clear, charting would reveal a myriad of potential impediments to pregnancy, ranging from the woman's not ovulating to her simply not producing the cervical fluid necessary for conception. It may even show that this woman is consistently getting pregnant but having repeated miscarriages of which neither she nor her doctor had been aware. And for those seeking to prevent pregnancy, charting eliminates the anxiety so many feel as they run off to the store or their gynecologist for expensive and inconvenient pregnancy tests. Women who chart know if they are pregnant just by observing their waking temps, and thus they can eliminate that recurrent doubt while awaiting the arrival of a "late period."

Politics, Profit, and Natural Contraception

Another reason this method is not better known or promoted for birth control is that it's not profitable for either physicians or pharmaceutical companies

such as those that produce hormonal methods like the pill or IUDs. In other words, beyond the initial investment in a thermometer and perhaps a book, class, or app, there is no further cost to those using FAM. Compare this to the cost of the pill, for example, which is at least several hundred dollars a year.

Given the profitability of so many other contraceptive methods, is it any wonder that FAM is not promoted more enthusiastically by the medical community? It's no secret that great sums of money are spent to present the pill as a contraceptive panacea, but what is often overlooked is the bias with which various pharmaceutical companies distort the effectiveness and validity of other birth control methods, particularly Fertility Awareness.

Corporate literature that summarizes the various contraceptives for public consumption is consistently filled with blatant inaccuracies, such as one pamphlet entitled "Contraception: The Choice Is Yours," which claims that "Natural Family Planning is based on the fact that fertilization is most likely to occur just before, during, and just after ovulation." This would almost make sense, except for the minor detail that fertilization cannot take place without an egg present, so it would be no small feat for fertilization to take place before the egg is released!

Of course, more important than any individual misrepresentation is the overall way FAM and NFP are portrayed. This particular pamphlet was typical in that its "Natural Family Planning" heading was followed by a supposed clarification in parentheses, which as you might guess was simply "the Rhythm Method."

Aside from birth control, it's also fairly apparent that for those people and companies involved in providing the high-tech reproductive treatments that have given hope to so many, there is little incentive in promoting a virtually free system of knowledge that could obviate the need for their services. While these reproductive technologies are often a clear necessity, you will learn throughout this book why they are not needed for many couples, when education alone could help them achieve their dreams.

The Language of "Palatability"

Finally, FAM is not better known because it suffers the misfortune of being a method that many, especially in the media, refer to as "unpalatable." Why is

this?

We had a doctor on the Seattle news who produced medical stories every week. I had approached him about the possibility of doing a feature on the Fertility Awareness Method a number of times over the years, but he was always noncommittal while still acknowledging that he sincerely believed the method was effective. I could never grasp why he felt it wouldn't be suitable for the news until he finally admitted that he felt the subject was simply unpalatable for the general public.

Perhaps his concern was about the term used for one of the three fertility signs: "cervical mucus." Maybe if it were referred to as something less graphic, he would find it suitable for the evening news. No sooner had I written him with the suggestion to use the phrase "cervical fluid" instead when he called to tell me he thought the change in vocabulary was just the modification necessary to make FAM acceptable for the news. Within a few weeks, he ran an informative story about Fertility Awareness.

It took that experience to make me realize how powerful language can be in the acceptance of FAM. Since that news feature years ago, I have found that people are infinitely more attentive to and interested in FAM when the more neutral term "cervical fluid" is used instead of "cervical mucus." Perhaps the increased acceptability of that terminology is less puzzling when you consider that the woman's cervical fluid is analogous to the man's seminal fluid. One would never refer to seminal fluid as seminal mucus, and yet the purpose of the fluid in both the man and woman is comparable: to nourish and provide a medium in which the sperm can travel.

Of course, the media are extensions of our culture, and tend to promote a sanitized, unrealistic view of human physical processes. The purpose of FAM, however, is to enlighten people with a clear and empowering knowledge of their bodies' functions. Thus, if coining a term such as "cervical fluid" makes that task easier, so be it.

✂️ **WHY SOME DOCTORS FAMILIAR WITH THE FERTILITY AWARENESS METHOD DO NOT INFORM THEIR PATIENTS**

Many doctors know that FAM is a scientifically validated, natural method of effective birth control, pregnancy achievement, and health awareness, but they may still cite various reasons why they don't recommend it to their patients. Some say that women can't be bothered to learn it because it's complicated and difficult to use, requires high intelligence in order to apply it, and takes too much time to learn and practice. But for the vast majority of women, I believe that these assertions are simply not valid.

Actually, FAM is fairly simple and easy, once you learn its basic principles. (Most will be able to learn those principles in this book. Others may want to take a class, where a certified instructor can typically teach a comprehensive course in several sessions.) The method is no different from many life skills, such as learning to drive a car. It may seem intimidating at first, until a little practice gives you the confidence you need.

Some doctors may genuinely believe that women are not smart enough to understand and assimilate the information taught in FAM classes. While I find this perspective discouraging, I understand why they believe this. It's true that the people attracted to FAM tend to be quite educated. However, I think this is more a function of the way in which people initially learn about it, rather than of the inherent intelligence required to use it. It often takes a very motivated individual to seek out information about a subject that, until recently, has typically been reserved for the few who are resourceful enough to research the topic.

I personally have taught FAM to more than 1,500 clients and can assure you that virtually all women can internalize the method and its biological foundation within a few hours. I also suspect that few of them are particularly burdened by the couple of minutes a day it takes to apply.

In Defense of Doctors

The above is not meant to be a diatribe against the medical community. In

fact, I think the majority of physicians are genuinely sensitive and caring people who truly want to empower their patients with the knowledge necessary to be healthy and strong.

Yet, in an industry that is becoming increasingly high-tech, many doctors may be skeptical of FAM, precisely *because* it's so non-tech. In fact, if anything, they may believe that they are not being active enough in their patients' care if they do not prescribe drugs or perform various procedures. And, perhaps most important, clinicians don't realistically have the time to thoroughly explain the method in a typical office visit, and thus few women ever learn it.

Ultimately, a perpetual cycle of ignorance ensues, for even those doctors who are especially supportive of women taking control of their own reproductive health cannot be as effective as they would like to be if their patients don't chart. Indeed, the benefits of FAM cannot become commonplace in the doctor-patient relationship until more women do their part by charting their cycles.

Taking Control of Your Reproductive Health

*D*uring each cycle, a woman's body prepares for a potential pregnancy, much to the chagrin of those who don't want to become pregnant. But she is actually fertile only a few days per cycle, around ovulation (when the egg is released). The only practical, noninvasive way to reliably identify that fertile time is through observing the woman's waking temperature and cervical fluid, as well as the optional sign of cervical position. By charting these primary fertility signs, a woman can tell on a day-to-day basis whether she is capable of getting pregnant on any given day. And because the actual day of ovulation can vary from cycle to cycle, the determination of those few days around ovulation is crucial, and therein lies the value of the Fertility Awareness Method.

✂ THE POLITICS OF NATURAL BIRTH CONTROL

We want far better reasons for having children than not knowing how to prevent them.

—DORA RUSSELL

Why are so many women frustrated with the state of contraception today? Why is the vast majority of birth control designed for women to use, even though it's men who are fertile every single day? Wouldn't it make more sense for birth control to be developed for the gender that is the most fertile? Consider the following table:

METHODS OF BIRTH CONTROL AVAILABLE TODAY

(listed in approximate order from most to least invasive)

For Women	For Men
Tubal Ligation	Vasectomy
IUD (intrauterine device)	Condom
Implanon	Withdrawal
Depo-Provera Injection	
The pill	
Nuvaring	
The Patch	
Diaphragm	
Female Condom	
Cervical Cap	
Sponge	
Suppositories	
Spermicides	
Films, Foams, and Jellies	
Natural Methods	

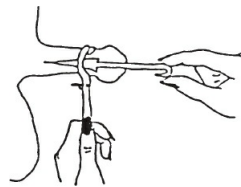
Given that women are fertile only a few days per cycle, it's ironic that they're the ones who risk the vast array of side effects and physical ramifications of birth control. These include increased risk of blood clots, strokes, breast cancer, irregular spotting, severe pelvic inflammatory disease or uterine perforation, heavy, crampy periods, urinary tract infections, cervical inflammation, and allergic reactions to spermicides and latex, to name a few. And for what? To protect themselves from a man, who produces millions of sperm per hour!

Imagine the reaction of most males to the following announcement:

A NEW INTRAPENAL CONTRACEPTIVE

The newest development in male contraception was unveiled recently at the American Women's Surgical Symposium. Dr. Sophia Merkin announced the preliminary findings of a study conducted on 763 unsuspecting male graduate students at a large midwestern university. In her report, Dr. Merkin stated that the new contraceptive—the IPD—was a breakthrough in male contraception. It will be marketed under the trade name “Umbrelly.”

The IPD (intrapenal device) resembles a tiny folded umbrella which is inserted through the head of the penis into the scrotum with a plungerlike instrument. Occasionally there is perforation of the scrotum, but this is disregarded since it's known that the male has few nerve endings in this area of his body. The underside of the umbrella contains a spermicidal jelly, hence the name “Umbrelly.”



Experiments on a thousand white whales from the continental shelf (whose sexual apparatus is said to be closest to man's) proved the Umbrelly 100% effective in preventing production of sperm, and eminently satisfactory to the female whale since it doesn't interfere with her rutting pleasure.

Dr. Merkin declared the Umbrelly to be statistically safe for the human male. She reported that of the 763 grad students tested with the device, only two died of scrotal infection, three developed cancer of the testicles, and 13 were too depressed to have an erection. She stated that the common complaints ranged from cramping and bleeding to acute abdominal pain. She emphasized that these symptoms were merely indications that the man's body had not yet adjusted to the device. Hopefully, the symptoms would disappear within a year.

One complication caused by the IPD was the incidence of massive scrotal infection necessitating the surgical removal of the testicles. "But this is a rare occurrence," said Merkin, "too rare to be statistically important." She and the other distinguished members of the Women's College of Surgeons agreed that the benefits far outweighed the risk to any individual man.

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Illustration by Frankie Collins.

Although the above is only a parody, in reality the notorious Dalkon Shield IUD rendered many women infertile by causing severe pelvic inflammatory disease. And it's but one example of the medical nightmares to which many women have been subjected; recent history reveals countless ways in which women's bodies and those of their potential offspring have been exposed to dangerous drugs and procedures.

From the tragedies caused by thalidomide and DES in the 1950s to the later controversies over the side effects of Norplant and Depo-Provera, we've seen an endless stream of revelations that call into question the level of safety that female patients are assured. Beyond the often dubious nature of the drugs we've been prescribed, both contraceptive and otherwise, we've witnessed the anguish surrounding the use of breast implants. In addition, we eventually became aware of the wide overuse of such medical procedures as C-sections and hysterectomies, which simply added to the average woman's confusion (thankfully, recent studies show that the number of hysterectomies has dropped significantly in the last 10 to 15 years, but the total number of C-sections still remains suspiciously high).

Whether men would submit to all the "inconveniences" is not really the

issue. Given all that women have been through, it's only natural that they would want to take control of their own medical and reproductive needs with the most effective, least intrusive means possible.

Why Unplanned Pregnancies Occur

I remember . . . a friend described her first experience with a contraceptive device, which shot out a bathroom window into the college quadrangle. She never retrieved it. I wouldn't have, either.

—ANNA QUINDLEN

To understand the politics of natural birth control, we must examine the concept of unplanned pregnancies. Why do unplanned pregnancies occur? There are four primary reasons:*

1. People do not use birth control because they are “swept away in the moment.”
2. People do not use birth control because of ignorance.
3. People do not use birth control because they feel no method is acceptable.
4. People use birth control, but the method fails.

How does the Fertility Awareness Method fit into the above scheme? Let's examine each situation individually:

People Do Not Use Birth Control Because They Are Swept Away in the Moment

All barrier methods leave people vulnerable to the type of passion that reduces them to a momentary lapse in judgment. Who among us hasn't thought at one time or another, “Oh, I'm sure I'm not fertile right now”? However, when a woman *knows* whether she is fertile, it eliminates guessing. Being unlucky is no longer an excuse.

People Do Not Use Birth Control Because of Ignorance

Many people would be more inclined to use birth control if they

understood the likelihood of pregnancy occurring at specific times in the cycle. There are so many myths perpetuated about human fertility that it's no wonder there are so many unplanned pregnancies. The classic one responsible for probably the most unplanned pregnancies is that ovulation occurs on Day 14. In fact, ovulation *may* occur on Day 14; or it may occur on Day 10, Day 18, or Day 21. In other words, ovulation is not the consistent event it's presumed to be. But the fallacy of Day 14 is so prevalent that even clinicians inadvertently perpetuate it.

If a couple thinks a woman can get pregnant only on Day 14, they may feel safe having unprotected intercourse up to Day 13 and again from Day 15 on. Some couples may even feel that they are being conservative if they put a buffer zone of several days on either side of Day 14. But if the woman ovulates on Day 20, for example, even complete abstinence between Days 11 and 17 will not prevent an unplanned pregnancy! The dangerous fiction of Day 14 is but one example in which people are not accurately taught about human reproduction.

What about the faulty assumption that women cannot get pregnant when they have intercourse during their period? Another common belief is that sperm can live up to only three days. In reality, sperm can survive up to five days if fertile-quality cervical fluid is present. Combine this belief with that of ovulation's always occurring on Day 14, and unintended results are almost inevitable.

These are just some of the more common misperceptions that people have about basic human biology. Suffice it to say, many unplanned pregnancies occur because people believe such fallacies. Obviously, education is key to dealing with this problem.

People Do Not Use Birth Control Because They Feel No Method Is Acceptable

It's hardly surprising that most people find today's contraceptive choices far from ideal. Aside from sterilization, our options include such alternatives as a method that infuses the woman's body with unnatural hormones (the pill and other artificial hormonal methods), may increase a woman's risk of breast cancer or osteoporosis (Depo-Provera), involves inserting a matchstick-size silicone tube under the skin of the arm (Implanon), maintains the uterus in a constant state of inflammation, sometimes causing painful

periods (the IUD), fills the woman's vagina with a latex dome that leaks goeey spermicide for at least 24 hours after intercourse (the diaphragm), can be uncomfortable and cause cervical anomalies (the cervical cap), is notorious for causing vaginal infections (the sponge), completely covers the woman's clitoris (the female condom), or places a rubber sheath between the two individuals (the male condom).

Is it any wonder that unplanned pregnancies occur, given the choice of methods people perceive as their only options? With FAM, couples can experience the freedom of effective contraception without devices, chemicals, or side effects for most of the cycle.

People Use Birth Control, but the Method Fails

One of the most inflammatory opinions some people hold is that if a couple has an unplanned pregnancy, it's their fault because they were being careless by not using birth control. Often this is simply not the case. According to the Alan Guttmacher Institute, a leading think tank for population research, about half of all American women who experience unplanned pregnancies are, in fact, using contraception at the time they conceive. Many of those failures could have been avoided if couples better understood the woman's menstrual cycle.

This fact is particularly interesting given that so many of the barrier methods advertise such impressive "effectiveness rates," often around 95% or higher. These statistics are inherently misleading, primarily because they are based on the faulty assumption that women can get pregnant throughout the menstrual cycle, when in fact a woman can get pregnant for only about one-fourth of a typical cycle. If a method is going to fail, it's only going to fail during the short fertile phase when her body is even capable of conception.

Given this information, people should know when in the cycle a contraceptive has the potential to fail. They can then make an educated decision as to whether they want to abstain or double up on methods of birth control during that very risky phase to reinforce effectiveness of the methods. For example, if a couple normally uses the diaphragm and knows that the woman will be especially fertile on a particular day, they would be able to increase its effectiveness by using a condom as well.

Women, Men, and Contraceptive Responsibility

A common theme in women's conversations is the frustration they often feel when saddled with the full burden of birth control. Once people understand that women are fertile for only a fraction of the time men are, they are especially struck with the inequity of it all. So it's particularly interesting to examine the ways in which women have been disproportionately exposed to side effects throughout their cycle. For example, there are many who will concede that while the pill was originally designed to sexually emancipate women, it has also had the effect of burdening the woman with the sole responsibility of birth control.



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Susan and Joe were a very affectionate couple who grappled with the issue of inequality. Susan had been on the pill for years even though she often suffered nausea and migraine headaches. So when she suggested they take a class in the Fertility Awareness Method, Joe was more than willing. Three years later, they joke about the fact that, even today, every time the alarm rings, he gets up, puts the thermometer in her mouth, brushes his teeth, comes back and removes the thermometer, and records it on her chart. Susan, for her part, remains half asleep, snuggled in bed. No more nausea. No more headaches.

Unlike most other methods, FAM affords men the opportunity to lovingly and actively share in the responsibility of contraception. In fact, the method is so conducive to male involvement that many couples claim that FAM has strengthened their relationship.

✿ THE POLITICS OF PREGNANCY ACHIEVEMENT

I'll never forget that day my client Terry called. She had been trying to get pregnant for over a year before taking my seminar. It was two weeks following the class, and there was a slight hint of anxiety in her voice as she asked me whether she and her husband should make love that night. They were worried because she thought she had a serious vaginal infection that might affect their chances of conceiving. Just as she began describing what was "coming out of her," I heard someone pick up the other extension. It was her husband, James. "You cannot believe what is leaking out of Terry right now."

"Wait a second, you guys. Let me ask you a few questions. Is it clear?"

"Yes."

"Is it slippery?"

"Definitely."

"Is it stretchy?"

"Toni, it's 10 inches!"

"Well then, what the hell are you doing talking to me?" I joked. "Get off the phone and take advantage of it!"

Before making love that night, Terry and James took a dozen photos of her fertile cervical fluid. Thirteen years later, I had the privilege of attending their son's bar mitzvah.

It's unclear whether the incidence of infertility has actually been increasing over the last several decades or if people are simply seeking treatment in higher numbers. Most likely it's a combination of both, in large part because more women today delay having children until at least their mid-30s. Of course, as you have no doubt heard many times before, the unfortunate reality is that a woman's fertility diminishes as she grows older. Regardless of what the reason is, infertility touches about 1 in 6 couples; however, what is often perceived as or referred to as infertility may not necessarily be infertility at all.

The standard definition of infertility is not becoming pregnant after one

year of unprotected intercourse. However, there are many couples whose problem is so minor that Fertility Awareness alone would facilitate pregnancy. This is not to imply that fertility issues can always be treated through education. And I am certainly not suggesting that those who are having difficulties getting pregnant are uneducated or ignorant. But clinicians themselves often inadvertently perpetuate myths that prevent couples from attaining pregnancy.

The classic myth, already discussed in [Chapter 1](#), is that ovulation occurs on Day 14. To use this as an example, a couple may spend one year trying to time intercourse around Day 14, only to discover that in their particular case, the woman doesn't usually ovulate until about Day 20. If the couple gets pregnant after learning this information about her particular cycle, would you say that they were *infertile* before that? Clearly not. But the emotional and financial consequences are often so great that it's as if they really were.

Why People Are Often Misled to Believe They Are Infertile

Before discussing the impact on a couple of being inappropriately labeled “infertile,” let's look at why people are often misled in the first place. (For most of the points below, I will use the Day 14 myth as a point of reference.)

1. Infertility is assumed if pregnancy has not occurred within a year.

If a couple has been unable to get pregnant after a year of unprotected intercourse, the standard wisdom is to assume that there is probably a fertility issue, when in reality there may be no medical issue whatsoever.

2. Irregular cycles are assumed to be potentially problematic.

The belief that normal cycles are 28 days and ovulation occurs on Day 14 is so entrenched in the medical profession that when a woman's cycles vary from that standard, the variation is often presumed to be a potential concern. “Irregular” cycles are seen as problematic in part because gynecologists often need to time fertility tests and procedures around when the egg was released. But if a woman is taught how to identify approaching ovulation to time intercourse appropriately, it's

irrelevant whether she ovulates on Day 14, 19, or 21. (Of course, if your cycle lengths vary dramatically, or are longer than about 38 days, it's often an indication of a true hormonal disorder that warrants being checked by a doctor. see [Medical Causes of Anovulation or Irregular Cycles.](#))

One of my clients was clearly depressed when she first called me, because it had been over a year since she and her husband had started trying to get pregnant. She mentioned that she thought the reason she may not be getting pregnant was because her cycles were not a “normal” length. I learned that they were about 33 days, a normal period of time, but certainly longer than the proverbial 28 days. She went on to say that her husband got so frustrated with their apparent infertility that they would have intercourse only up to Day 14, then stop until the next cycle. No wonder they weren't getting pregnant! If a woman has long cycles, by definition she ovulates later. Within a month of taking my fertility seminar, the couple got pregnant.

3. Many doctors overlook the most obvious solutions.

Physicians are trained to identify disease and illness, often by diagnosing and treating with high-tech procedures. The result is that the most obvious solutions are often overlooked. A good example of this is the relationship between frequency of intercourse and pregnancy. A couple may have sex twice a week for a year and wonder why they have not gotten pregnant. A doctor may proceed with a fertility workup (including invasive and potentially painful tests) on the assumption that the couple may have a fertility problem, without considering the most rudimentary question, namely, whether the couple is having intercourse at the right time in the woman's cycle. It's quite possible to have intercourse twice a week for a year and still be missing the fertile phase in each cycle, especially if the woman has only a day or so of fertile cervical fluid, or the man's sperm count is marginal. This is clearly not a fertility problem but an education problem.

This concept of overlooking fundamental principles is exemplified by

Abraham Kaplan's theory, The Law of the Instrument:

Give a small boy a hammer,
and he will find that everything
he encounters needs pounding.

Doctors have a vested interest in using the tools that they have perfected through years of study. It should come as no surprise, then, that infertility specialists initially apply the high-tech tools of the trade. This is very helpful for scores of couples dealing with actual infertility. However, there are many couples for whom the use of these tests and procedures is simply unnecessary. *Before any high-tech tests or treatments are employed, the man should have a semen analysis. In addition, the couple should chart the woman's fertility signs to both identify when she is the most fertile and to determine any possible impediments to achieving pregnancy.*

4. Many clinicians tend to focus on basal body temperatures rather than cervical fluid.

Doctors will usually focus on basal body temps to the exclusion of the most important fertility sign for timing intercourse effectively, which is cervical fluid. In fact, physicians may unintentionally create a fertility problem by advising their patients to time intercourse for either the drop or rise in temperature.

This advice is not only misleading, it can actually impede getting pregnant! In short, cervical fluid is the key sign for timing intercourse to get pregnant.

One of the most glaring examples of a doctor reinforcing the notion of depending on past temps to indicate future fertility took place at, of all places, a conference of the infertility organization RESOLVE. The doctor's keynote address was about all the myths surrounding fertility. She was making the correct point that basal body temps only indicate fertility after it's too late, after ovulation has already occurred. While sitting in the audience, I remember thinking how gratifying it

was to finally hear a physician stress the point that temps are ineffective for timing intercourse. Imagine my surprise, then, when she continued: “Therefore, to predict impending fertility, you must look back at your previous thermal shifts to predict your upcoming fertile time.”

*I was stunned. Here she was, reinforcing the idea of looking at **past** cycles to predict future fertility, without so much as mentioning the most important fertility sign for getting pregnant: cervical fluid. The irony of the moment would have been amusing if it wasn't such blatantly bad advice, and addressed to such a vulnerable group of people.*

The reason temps don't help determine the best time to achieve pregnancy is that *by the time the temperatures shift up, the egg is typically already dead and gone.* However, the temperature is still very useful in terms of determining several facts about the woman's cycle, including: 1) whether she is ovulating at all, 2) whether the second phase of her cycle (from ovulation until her period) is long enough for the egg to implant in her uterus, and 3) whether she has conceived in that particular cycle.

5. Many fertility tests are timed inappropriately (or simply performed unnecessarily).

If infertility is suspected, doctors may perform a postcoital test to determine if the man's sperm are swimming freely in the woman's cervical fluid. For this test, the couple has intercourse, then the woman visits the clinic within several hours. A few drops of semen are removed from her vagina and examined under a microscope to determine if sperm are alive and moving in the fluid. The purpose is basically to determine two facts: whether the woman's cervical fluid is conducive to sperm viability, and whether her partner's own sperm will survive in it.

One of the most common mistakes made is in the procedure's timing. Many doctors continue to perform it around Day 14 of the woman's cycle, regardless of when she actually ovulates. Unless the woman does ovulate close to that day, the test is usually invalid, and leads many couples to believe they have a fertility problem when they actually don't.

I will never forget a lecture I gave to a group of nurse practitioners experienced in infertility treatment. As I explained that tests are useless if performed at the wrong time in a woman's cycle (for numerous women, Day 14 is simply too early), I could feel the anger build. Finally, one nurse blurted out sarcastically: "And just who do you expect us to refer our patients to for postcoitals where they will be willing to test them based on the woman's cycle rather than the availability of the staff?" All I could think of at that point was that I was not there to tell them what they wanted to hear, but rather what works.

There are certain medical events over which we simply have no control. Childbirth does not occur merely between the hours of 9 to 5, Monday through Friday. Certainly trauma is treated when it happens, not just when the clinic is open. To the extent possible, a woman's ovulation should be no different.

A test is useful only if it's both reliable and valid. In the case of the postcoital test, the only information to be obtained from performing it on Day 14 on a woman who ovulates on Day 20, for example, is to prove that Fertility Awareness can also be effectively used as a method of birth control! Sperm die within a few hours of intercourse when a woman is not in her fertile phase, and that phase is only the few days surrounding ovulation. If performed at any other time, the test is useless.

Another frequently mistimed test is the endometrial biopsy, which involves removing a small segment of the uterine lining close to the estimated time of menstruation. This is done in order to determine if the woman is ovulating and producing a suitable lining for implantation. But here too, practitioners will often simply assume a Day 14 ovulation, whether this really occurred or not, and thus the procedure's accuracy and relevance are questionable. (Had ovulation actually taken place on Day 21, for example, one would expect both endometrial development and the next period to be a week behind.) Clearly, women undergoing these procedures deserve useful information, which is possible only if they are appropriately timed.

Finally, some tests are performed well before it's appropriate to do so,

especially given how painful and intrusive they can be. For example, the hysterosalpingogram (HSG) is a dye test used to determine if the woman's fallopian tubes are open. It's actually quite revealing, but given its potential discomfort and cost, it should be performed only after it has been determined that possible ovulatory and cervical fluid problems have been ruled out. And, needless to say, it's completely useless if the fertility problem is determined in fact to be due to miscarriages. Charting would have revealed all of these problems.

6. Women are often needlessly prescribed an ovulatory drug such as Clomid (clomiphene citrate).

If a couple is presumed to be infertile, the woman is often put on an ovulatory drug whether or not she is actually ovulating. Its purpose is to stimulate egg development in the ovaries. But what the couple is often not told is that it has a paradoxical side effect: it can dry up the very cervical fluid that is vital for sperm transport through the cervix. So, while this potent medication is given to increase a woman's fertility, it can, ironically, act to prevent a pregnancy. (Sometimes, the only way to remedy this problem is through intrauterine insemination, where the sperm is deposited directly in the uterus, bypassing the cervix altogether.) I have had many clients achieve a pregnancy specifically after discontinuing Clomid.

This is not to suggest that Clomid does not have a role in infertility treatment. Certainly many women do get pregnant by using it, and indeed, it may be possible to alleviate some of the side effects. The one benefit of Clomid for women who already ovulate is to increase the luteal phase, the postovulatory phase. However, the use of Clomid should be an informed decision, rather than a routine first step. Women should ask their doctors why they think a prescription would be beneficial in their particular case, especially if they already know from charting that they are ovulating normally.

7. The commonly used ovulation predictor kits can be misleading.

With the advent of ovulation predictor kits so readily available in drugstores, many women are led to believe they have a fertility problem if the kits do not show the expected color surge indicating ovulation is

about to occur. But even if the kits do show a color surge, it does not necessarily mean the woman is fertile. The reasons they can be misleading are all discussed on [For more click here](#).

8. Women are often led to believe they are not getting pregnant, when they are actually having miscarriages.

There is a huge difference between a woman who has never achieved a pregnancy and one who gets pregnant but then miscarries. I do not mean to imply that women who continually miscarry do not have a fertility problem. However, the diagnostic steps taken for the two women should be dramatically different.

Miscarriages can be difficult to diagnose, since they often happen so early in the woman's cycle. They may be mistaken for nothing more than a menstrual period. But a woman trained in Fertility Awareness knows that she needs a phase of at least 10 days from ovulation to menstruation for implantation to later occur, and that 18 consecutive high temps after ovulation almost always indicates a pregnancy. She would therefore be able to determine with a high degree of accuracy whether or not she was indeed pregnant before she bled. But since most women are not taught how to take control of their cycles, they are unable to interpret what is occurring in their bodies. Thus, they may needlessly subject themselves to painful and invasive diagnostic procedures to rule out an infertility problem that may not exist.

My client Kisha thought she might finally be pregnant because she had taken my class and knew that 18 high temps most likely indicated a pregnancy. Upon hearing from her, I suggested she come in to the clinic to get a blood test to confirm it. Sure enough, she was pregnant. In fact, she had conceived so early in her cycle (about Day 11) that by the time 18 high temps had been recorded, she was only on Day 29, not a day that most women typically associate with pregnancy! But she knew she was pregnant earlier than most women would know because she had educated herself through Fertility Awareness. Unfortunately, within a few days of her

positive test, she had a miscarriage. Although it was sad that this happened, the fact that she conceived was nevertheless very helpful in terms of what it told her about her fertility at the time:

- a. She was ovulating.*
- b. Her fallopian tubes were open.*
- c. Her cervical fluid was suitable for sperm penetration.*
- d. Her partner's sperm count was fine.*

What Kisha learned from this experience is that she had undoubtedly been having other miscarriages while trying to get pregnant, but would never have known had she not learned how to identify pregnancy through charting. FAM taught her that her problem may have been related to a shortened phase of progesterone in the second part of her cycle (the luteal phase). Rather than start the infertility workup from square one, with all of the inherently intrusive tests, she was able to show her charts to her doctor and immediately address the problem. Several months later, after being treated for a short luteal phase, she got pregnant and carried her baby daughter to term.

The Infertility Diagnosis: Staying in Control

As you can see, there are a number of reasons people are led to believe they are infertile when they actually may not be. The physical and emotional ramifications of this misdiagnosis are far-reaching and hard to overstate. The cost of infertility diagnosis and treatment is not covered by most insurance companies. Many couples struggling with infertility feel that it's grossly unfair to have years of their insurance fees cover the maternity care of other couples, only to have their own infertility treatment not included. The cost of even a minimal infertility workup can be thousands of dollars, and a comprehensive workup including treatment can amount to tens of thousands of dollars, usually out of pocket. It's especially disheartening that these exorbitant costs are so often unnecessary.

While men feel the impact to a certain extent, the woman is usually the partner most affected by the whole process. Because a woman's fertility is integrally related to her menstrual cycle, she must visit the doctor several times a cycle to determine potential fertility problems. Since doctors' offices are rarely open at night or on weekends, many must make arrangements to miss work numerous times or, in some cases, quit their jobs, in order to pursue fertility diagnosis and treatment.

As you've read, many of the diagnostic tests are quite uncomfortable or even painful. Even worse, they are often mistimed and simply not needed. But by charting their three primary fertility signs, women can inform their doctors of numerous facts about their fertility, which can quickly narrow the range of possible diagnoses. In so doing, they can help exclude those procedures that would serve no purpose, and help to most appropriately time those tests that could reveal valuable information.

Indeed, imagine how much more confident a woman would feel if she could say to her physician:

Hi, Dr. Smith. Yes, I am basically fine, thank you. But I do have a couple of concerns I wanted to discuss with you. I practice Fertility Awareness and have noticed that my luteal phase is a little short. We plan to get pregnant this spring and would like to try to lengthen it to avoid risking a miscarriage. What would you suggest?

In other words, women and couples can become *active* participants in their health care. By charting, couples facing fertility issues can reduce their feelings of vulnerability, and most important, increase their chances of pregnancy, whether medical intervention is required or not.

Knowing When: Identifying the Date If Conception Occurs

Interestingly enough, some clinicians may inadvertently lead couples who have gotten pregnant to believe there is a problem when there is not. Once again, it all reverts back to the erroneous assumption that women usually have 28-day cycles and ovulate on Day 14.

Dana was a 25-year-old woman who had recently come off the pill, so her cycles had not yet returned to normal. Because she and her husband wanted to get pregnant, they practiced Fertility Awareness to determine her fertile phase. After she became pregnant, her doctor asked her the date of her last menstrual period to apply the standard pregnancy wheel (shown on [A Typical Pregnancy Wheel](#) in the color insert). Dana mentioned that the pregnancy wheel would be inaccurate in her particular case since it assumes ovulation on Day 14. She explained that she practiced FAM and knew that she didn't ovulate until about Day 37, so it would inaccurately predict her due date a full three weeks earlier than it really should be.

You can imagine Dana's surprise when the doctor not only did not give credence to her charts, but also expressed great concern when his pelvic exam revealed that the fetus was "extremely small for dates." Had she not been practicing Fertility Awareness, she would have undoubtedly been distressed to be told that there was something wrong with her fetus, all because he was estimating her date of conception on the average woman's day of ovulation, rather than on her own cycle. As if that wasn't enough, he even red-flagged her chart with a "medical alert" tag, indicating that her pregnancy was high-risk and needed to be carefully monitored!

Although the use of ultrasound would eliminate this confusion, there are many women who would prefer to avoid such procedures, but regardless, pregnancy wheels should not be considered definitive. Indeed, such miscalculations can lead and have led to the induced labor of many a premature baby.

♀ FERTILITY AWARENESS FOR DETECTING GYNECOLOGICAL PROBLEMS AND UNDERSTANDING THE HEALTHY BODY

How often have you felt a sudden sharp pain in your side, noticed spotting at odd times, or even felt a breast lump that caused you to panic? While all of these experiences may seem confusing, they can be normal occurrences *if they take place at the appropriate time in your cycle.*

The benefits of charting extend far beyond knowing when a woman can and cannot get pregnant. There are many gynecological conditions that can be identified through observing your fertility signs. Women who chart can determine whether they are experiencing something normal for them or something that might be a true gynecological problem, such as a vaginal or urinary tract infection or cervical anomaly. Those who chart are so aware of what is normal for themselves that they can help their clinician determine irregularities based on their individual symptoms rather than on the average woman's symptoms.

This awareness has tremendous advantages, as seen in the classic example of women who have occasional midcycle spotting, which is usually harmless and often referred to as "ovulatory bleeding." But because spotting can be an indication of other potentially serious problems (such as cervical cancer), clinicians often feel obligated to pursue unnecessary testing, needlessly worrying and inconveniencing their patients. A woman who charts would know whether this type of bleeding is normal for her, and thus wouldn't seek medical attention unless she felt she really needed it.

Of course, certain unpleasant medical procedures will always be necessary. Most women would say that an annual pelvic exam is hardly their idea of a good time. The average woman would probably rather be scrubbing a toilet than lying on the exam table, her legs in stirrups, trying to maintain a semblance of dignity. Especially when the doctor walks in, smiling and acting as if there's nothing the least bit awkward about her lying there stark naked under a skimpy paper gown.

And what is the first thing that physicians say when they sit down at the

foot of the exam table? “Scoot down, please.” It’s hardly a coincidence that doctors must always request that of their patients. After all, how many women of their own volition would choose to have their derriere hanging off the table if they didn’t have to?!

Now, granted, no amount of fertility consciousness will free you from this unpleasant experience. But taking responsibility for your own health care will at least give you some integrity and a sense of control often lost in a typical office visit. Charting the menstrual cycle allows a woman and her health care practitioner to work together as a team, with the patient contributing to her own well-being. In addition, FAM will put you so in tune with the normal occurrences of your cycle that it will greatly reduce the number of times you feel a need to consult with your doctor in the first place. For example, how many times have you gone to your gynecologist complaining of an infection only to be assured you were fine? As you know, information about women’s fertility signs is not typically taught in school; therefore, many girls and young women grow up thinking they are unhealthy or even dirty. What they really are is simply uninformed.

So That’s What It Is!

There is nothing more confusing than sitting in the library studying for finals in your master’s program when you feel a sudden, slippery, wet sensation (and you know that physics has never excited you *that* much). So, what’s going on? You run to the bathroom, thinking you may have started your period, only to find no blood on your underwear. In reality, you are no doubt experiencing what is commonly referred to as “eggwhite quality” cervical fluid, an extremely slippery and fertile secretion that is released as you approach ovulation. As you will learn, such secretions are healthy, and most important, they’re predictable.

The first time Barbara ever noticed fertile cervical fluid as a young teenager, she was horrified. She couldn’t imagine what was hanging from her vagina when she went to urinate. The only thing she could think to do in order to remove it was wad up balls of toilet paper and hurl them at this seemingly foreign blob. Barbara grew up to become

a FAM instructor!

Many women today refuse to remain ignorant. They are beginning to actively participate in all facets of their health care, enhancing their understanding of their fertility in the process. FAM gives women these opportunities. Most women are thrilled with the sense of control they feel after spending just a couple of minutes a day charting their cycle, cherishing the privilege of finally understanding their bodies.

Fertility Awareness as Basic Education

To be sure, Fertility Awareness is not the best choice of birth control for all women. Indeed, given the realities of AIDS and other sexually transmitted infections (STIs), FAM as contraception is recommended only for monogamous couples with the maturity and discipline to follow the method correctly. However, even if a woman never uses it for contraceptive purposes, this book will clearly show that the biological principles that form the foundation for FAM should be part of every woman's basic education. If this came to pass, women would be far less dependent on doctors for answers that should be a part of their own fundamental knowledge and understanding.

Alicia, one of my clients, had been charting her cycles for several years when she volunteered to be a control for an ultrasound study in abnormal ovulation. Over five months, her ovaries were monitored to determine if she was releasing an egg. Every time she went in, she would announce confidently that she was about to ovulate, and as usual the technician would raise her eyebrows in surprise. "Oh, really?" she would say. She would then check the monitor and say, "Oh, it looks like you're about to ovulate." "I know, that's what I just told you." And sure enough, the following day, Alicia would indeed ovulate.

When she returned the next day, she would say, "By the way, I think you'll find that I've already ovulated." "Oh, really?" the technician would say, scratching her head. She would then check the monitor and say, "Oh, it looks like you already ovulated." "I know, that's what I just told you," Alicia would reply, feeling a real sense of

confidence about her ability to interpret her fertility signs.

Given the few pages you've read so far, you may be starting to question why Fertility Awareness is not routinely taught as early as high school. And when you are done reading this book, you too will undoubtedly have the same reaction that so many women have upon learning this vital information: "How is it possible that I have gotten to this age without knowing such practical information about my own body?"

So let me ask you a seemingly off-the-wall question: What is the definition of "literate"? If you answered something to the effect of "being well versed in literature or creative writing" you wouldn't be wrong, of course. But many dictionaries list "to be educated" as the first definition. I, for one, love the idea of being literate, especially in the context of body-literacy—being able to read my own body to tell me the crucial information I need to take control of my reproductive and general health.

Indeed, it's worth noting that renowned scientist Dr. Carl Djerassi, often honored as the father of the pill, acknowledged that women should be privy to such basic biological occurrences. "Eventually," he wrote, "many a woman in our affluent society may conclude that the determination of when and whether she is ovulating should be a routine item of personal health information to which she is entitled as a matter of course."

PART  TWO

*R*EDISCOVERING
YOUR CYCLE AND
YOUR BODY

There's More to Your Reproductive Anatomy Than Your Vagina

What woman doesn't remember awkwardly gathering with other fifth-grade girls to learn about the mysteries of their bodies and the fascinating world of sanitary napkins they were soon to embark upon? The funny thing is, when all was said and done, most of us came away from the uninspired instruction with hardly a clue as to what was really about to happen to us. We proceeded to grow up with the menstrual cycle still cloaked in mystery, the subject of numerous myths.

We were all led to believe that the main event of every cycle was menstruation, and the primary lesson was proper tampon and sanitary pad etiquette. I can still remember giggling in the corner with my friends as we whispered the joke that was pathetically transformed from one of Stevie Wonder's most popular songs: "What's all right, uptight, and outta sight?" Tampons, of course. We were so mature now. We fifth-graders could joke about these sorts of things—things the fourth-graders surely would just not get. We were so cool.

So it should come as no surprise that after spending hours in the "feminine hygiene" aisle of the drugstore, most of us find that we still know basically nothing about our bodies, but can tell you pretty much anything you ever wanted to know about mini- versus maxipads, napkins with wings versus those with super-duper adhesive strips, extra-wide versus extra-long panty shields, and super-absorbent versus regular tampons.

This is where Fertility Awareness comes in. It's about so much more than merely understanding female hygiene and menstruation. At its core it's a philosophy of taking control of, understanding, and demystifying the menstrual cycle and all its effects on you. This is because sexuality, fertility, childbirth, and menopause are all facets of being female, and charting is the edifying window into these aspects of a woman's life. The self-knowledge available from Fertility Awareness is a valuable resource for all kinds of personal decision-making. Perhaps most important, it encourages women to value and trust knowledge provided by their own bodies.

Gynecologists are experts in women's physiology, so it only makes sense that women tend to turn to doctors rather than themselves to interpret their bodies. Reliance on physicians would be understandable if the knowledge doctors possessed about women's cycles was incomprehensible to the general public. But this is basic fertility, not brain surgery. In reality this information is quite simple, and not the mystery so many people believe it is.

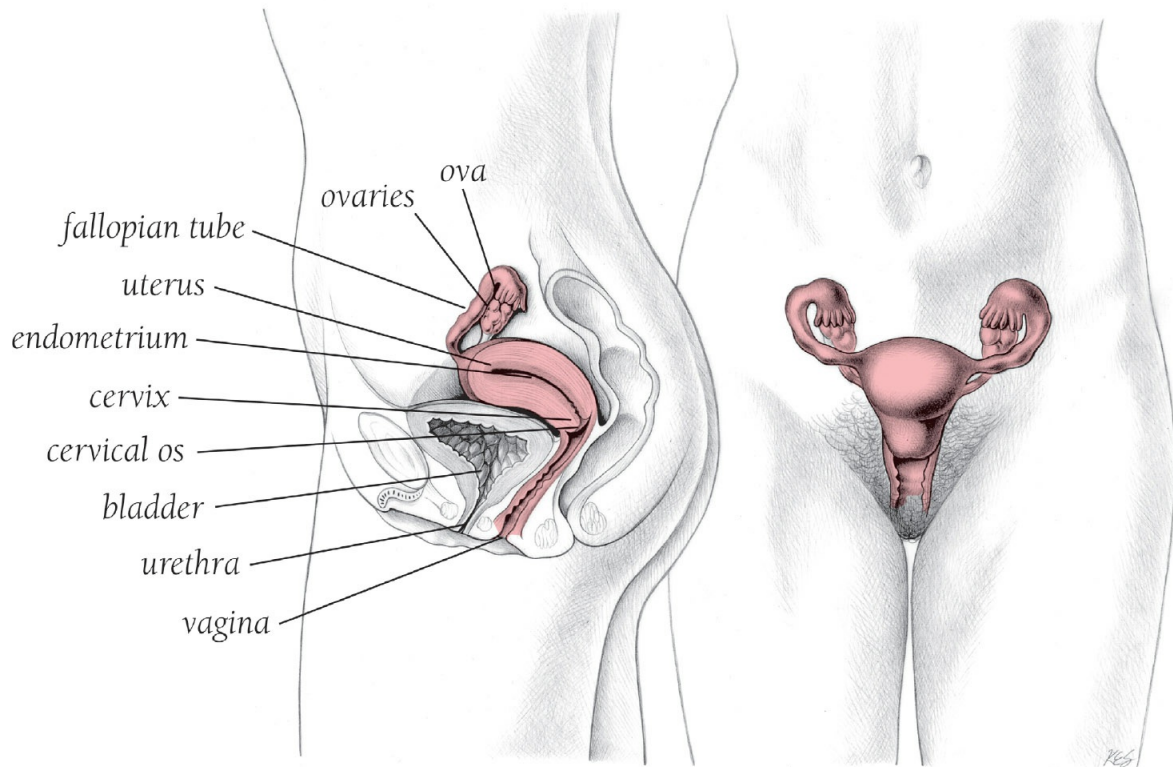
To understand your cycle, though, you should first have a general knowledge of human reproductive biology. The following pages should familiarize you with both female and male anatomy.

✂ INTERNAL FEMALE REPRODUCTIVE ANATOMY

Do you realize that a part of every single one of us resided inside our maternal *grandmother's* uterus, even before our own mothers were born? Unlike male fetuses, which contain no sperm, female fetuses already possess all the eggs that the newborn child will ever have. What that means, practically speaking, is that when your mother was just a fetus inside *her* mother, she already had developed all of her eggs, and one of them eventually became you! And if one day you are lucky enough to get pregnant with a girl, imagine being able to look down at your belly and ponder the fact that you are carrying a physical part of your future grandchildren inside of you. (see [Where do I come from?](#) on the last page of the color insert.)

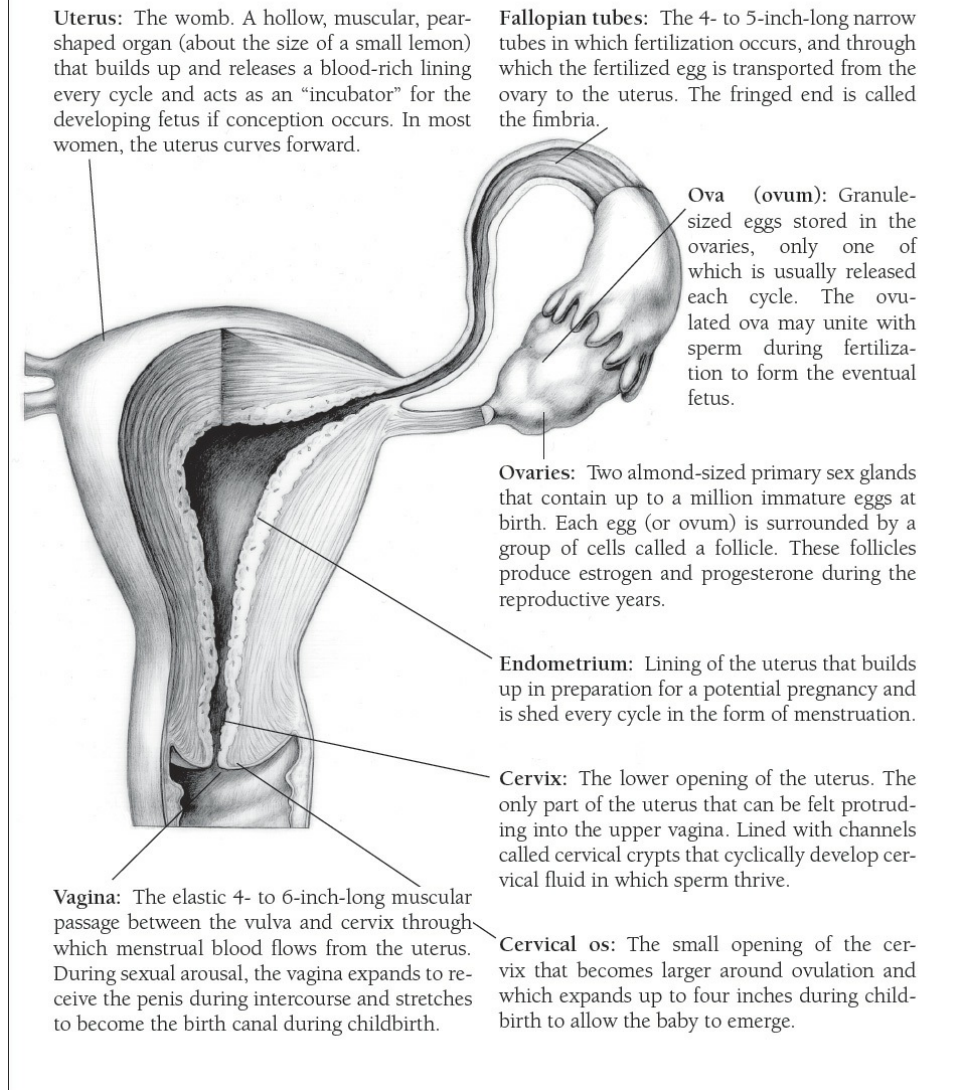
One of the major differences between male and female anatomy pertains to when the sex cells (or gametes) are developed. As mentioned above, girls are born with all the eggs they will ever have. The eggs start to mature and be released at puberty, continuing usually to expel one egg per cycle until menopause. Boys, on the other hand, don't develop sperm until adolescence, but then continually produce sperm every day until they die. The box below reflects the three major differences between male and female fertility.

DIFFERENCES BETWEEN MALE AND FEMALE FERTILITY	
Males	Females
Fertile all the time, since sperm are a daily basis.	Fertile only a few days per cycle, produced on since an egg is released only once a cycle.
Do not develop any sperm until puberty.	Born with all the eggs they will ever have.
Fertile from puberty until death.	Fertile from puberty until menopause (about 51 years old).



The Woman's internal reproductive organs. Note that for most women, the uterus typically tilts forward.

CROSS-SECTION OF THE UTERUS



Uterus: The womb. A hollow, muscular, pear-shaped organ (about the size of a small lemon) that builds up and releases a blood-rich lining every cycle and acts as an “incubator” for the developing fetus if conception occurs. In most women, the uterus curves forward.

Vagina: The elastic 4- to 6-inch-long muscular passage between the vulva and cervix through which menstrual blood flows from the uterus. During sexual arousal, the vagina expands to receive the penis during intercourse and stretches to become the birth canal during childbirth.

Fallopian tubes: The 4- to 5-inch-long narrow tubes in which fertilization occurs, and through which the fertilized egg is transported from the ovary to the uterus. The fringed end is called the fimbria.

Ova (ovum): Granule-sized eggs stored in the ovaries, only one of which is usually released each cycle. The ovulated ova may unite with sperm during fertilization to form the eventual fetus.

Ovaries: Two almond-sized primary sex glands that contain up to a million immature eggs at birth. Each egg (or ovum) is surrounded by a group of cells called a follicle. These follicles produce estrogen and progesterone during the reproductive years.

Endometrium: Lining of the uterus that builds up in preparation for a potential pregnancy and is shed every cycle in the form of menstruation.

Cervix: The lower opening of the uterus. The only part of the uterus that can be felt protruding into the upper vagina. Lined with channels called cervical crypts that cyclically develop cervical fluid in which sperm thrive.

Cervical os: The small opening of the cervix that becomes larger around ovulation and which expands up to four inches during childbirth to allow the baby to emerge.

✿ EXTERNAL FEMALE REPRODUCTIVE ANATOMY

It is amazing how few women really know what their external anatomy looks like. Sadly, most girls are led to believe that they are “dirty down there,” and are therefore reluctant to even examine themselves. Boys, however, are usually socialized to believe that they possess a treasure in which to take pride.

Although the illustration of External Female Reproductive Anatomy on the next page should be self-explanatory, there are several points worth mentioning regarding external anatomy. One thing is that there are probably as many variations in size and shape of vaginal lips as there are women. The six sample drawings in [The Spice of Life: Variations in Female Anatomy](#) section of the color insert represent but a tiny fraction of the diversity. The variation between women’s vaginas and vaginal lips merely adds spice and uniqueness.

Aside from the obvious external differences between men and women, they also differ both sexually and in terms of certain potential physical problems. Women, for example, tend to be more prone to urinary tract infections (UTIs). This is because a woman’s urethra is shorter, so bacteria have less distance to travel from its opening to the bladder. In addition, its location so close to the anus makes it more vulnerable to external bacteria, while its location so close to the vagina can lead to occasional irritation during intercourse. Finally, a contraceptive diaphragm can obstruct the flow of urine by pressing against the urethra, creating a perfect medium for bacterial growth.

In addition to UTIs, women may develop occasional vaginal infections due to the delicate pH balance in the vagina. As you know, discharge from infections should not to be confused with healthy cervical fluid, which women usually produce every cycle around ovulation. (True vaginal infections are discussed in [Chapter 18](#).)

Differences in anatomy affect the way men and women experience sexuality. This seems obvious on the surface, but there are so many subtle distinctions in this area that I have devoted much of [Chapter 20](#) to discussing

it. Still, one difference is certainly worth mentioning in this context: orgasms.

Women do not achieve orgasms the way men do. They're simply not built the same. A man's most sensitive nerves are just below the tip of the penis, which is the part most stimulated during sexual intercourse. It should come as no surprise that men achieve orgasm fairly easily due to the physical nature of intercourse.

Why do women not achieve orgasms during intercourse the same way men do? The answer is straightforward. The most sensitive sexual nerves in women are in the clitoris, which is outside and above the vagina. So, during traditional intercourse (with the couple face-to-face in the missionary position), while the man is having a grand ol' time, the woman may be compiling a grocery list for dinner that night.

EXTERNAL FEMALE REPRODUCTIVE ANATOMY

Vulva: The external female genitalia.

Mons pubis: The soft fleshy tissue beneath the pubic hair that protects the internal reproductive organs.

Hood of clitoris: The protective covering of the clitoris, formed by the joining of the two inner vaginal lips.

Clitoris: The pea-sized organ that becomes filled with blood during sexual arousal, causing it to become firm and erect. As the primary site of orgasm for the majority of women, it is filled with more sexual nerve endings than any other part of the body. The female analog to the tip of the male penis.

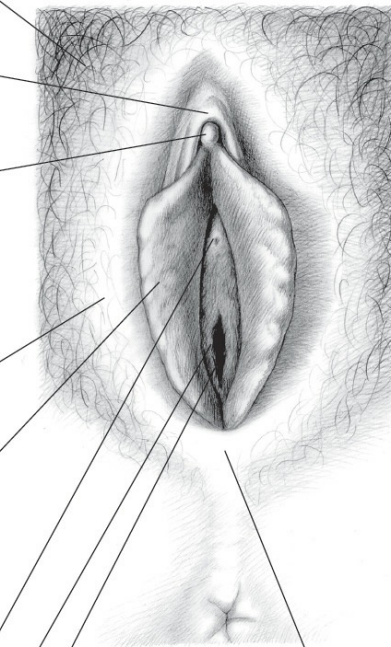
Vaginal lips (outer): Soft padding, which contains oil-producing glands and a small amount of pubic hair.

Vaginal lips (inner): Folds of very soft, sleek skin. Typically covers the vagina unless the woman becomes sexually aroused, at which point the inner lips tend to fill with blood and blossom out to allow for insertion of the penis. They may also become full and separate around ovulation.

Urethra: The narrow tube that carries urine from the bladder out of the body.

Introitus (Vaginal opening): The outer entrance to the vagina. The opening for the release of menstrual blood, as well as cervical fluid. The site through which a baby's head emerges during childbirth.

Vagina: The elastic and ridged 4- to 6-inch-long muscular passage between the vulva and cervix, acting as the channel for the flow of menstrual blood, the receptor of the penis during intercourse and the birth canal during childbirth.



Bartholin's glands: Two tiny glands on each side of the vaginal opening that produce a thin lubricant when a woman becomes sexually aroused.

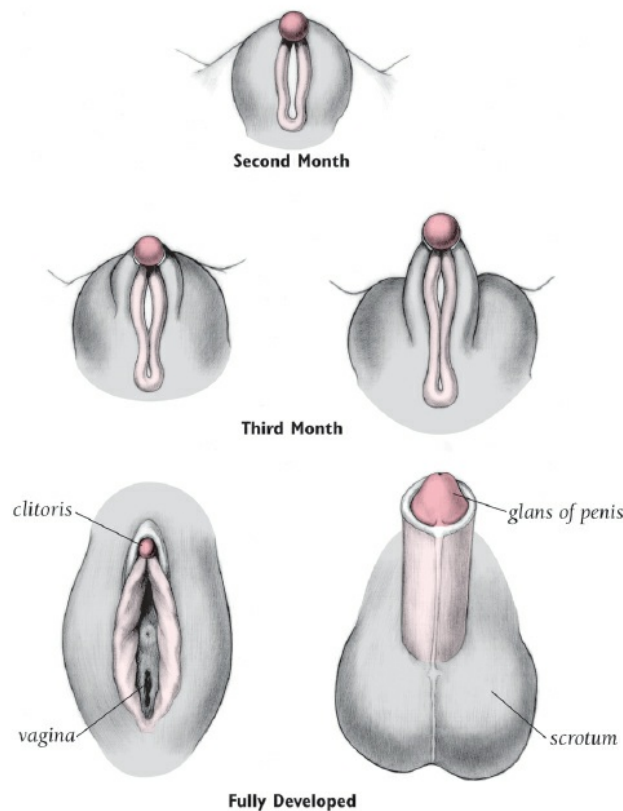
Perineum: The membrane between the vaginal opening and the anus that remarkably stretches during childbirth to allow a baby's head to emerge through the vaginal opening.

It's not that the sensation of intercourse isn't wonderful for most women. And for the lucky 25% or so who can achieve orgasms from intercourse, the experience can be fantastic. But the point is that women are built differently than men, plain and simple.

The most graphic way to explain this is by illustrating how a human being develops while in the uterus. Before a fetus evolves into a boy or girl, the exact same cells that would become the tip of the penis in the boy become the clitoris in the girl. And the same cells that would become the scrotum in the boy become the vulva in the girl. Perhaps the best way to help men understand women's sexuality would be to ask them whether they would be

able to achieve an orgasm from merely being stroked on the scrotum. Who knows? Maybe, maybe not. Or maybe after, say, two hours! Yet high expectations cause men and women alike to get frustrated when women don't have orgasms as readily as men do.

EMBRYONIC DEVELOPMENT OF FEMALE AND MALE GENITALIA



How embryonic development determines pleasure during intercourse. The clitoris and the tip of the penis evolve from the same sensitive cells. The vulva and the scrotum evolve from less-sensitive cells. The vagina, however, is comprised of cells of very low sensitivity, and has no analog in the male. Thus, during sexual intercourse, a man's most sensitive area (the glans) is directly stimulated, while a woman's (the clitoris) is not.

If you could be a fly on the wall of bedrooms throughout the world, I think you'd be amused to discover how often women blame their partners for "lousy technique," which prevents them from having orgasms during intercourse. Meanwhile, men blame their partners for not being responsive enough to automatically have orgasms. Needless to say, this often leads to conflict between the genders.

Sex between men and women can be extremely sensual and gratifying if

both partners learn about each other's bodies and needs. Satisfying your partner means taking the time to ask questions and being willing to be vulnerable. [Chapter 20](#) further discusses how to enrich your sex life by charting.

✿ MALE REPRODUCTIVE ANATOMY

Jamie leads a charmed life out in the country with her husband and three-year-old. The adorable little boy loves to run around naked in the warm sun. One beautiful spring day, as my friend Mikaela was sitting out on Jamie's patio sipping iced tea and chatting with her, little Theo ran over, pointed down, and innocently asked, "Mom, this little guy at the end of my penis—is it my brain?" As Mikaela tells it, the reaction on his mother's face seemed to say "No, honey, but when you get older, it might as well be."

Have you ever noticed that bald men usually have hairy chests? Long before I became a fertility educator, I knew there must be some association. Well, it has to do with testosterone, the hormone responsible for the development of male sex traits. Although the exact mechanism is not fully understood, there is a paradoxical correlation between a higher amount of testosterone and being hairy-chested and bald.

Of course, testosterone is also related to fertility, since it's responsible for sperm production. But so often when we think of fertility, the tendency is to think only of women. After all, they are the ones who have menstrual cycles and ultimately bear children. Yet if it weren't for the minor detail of men's sperm, women would obviously never get pregnant. In addition, whenever there is a fertility problem with a couple, it's as likely to be due to the man as to the woman.

As you have seen from the last few pages, there are significant differences between men's and women's fertility and sexuality. Interestingly, there are also distinct similarities between male and female reproductive anatomy. Just as women develop eggs in their ovaries, men produce the male counterpart, sperm, in their testes. And just as the woman's egg is drawn into the fallopian tube, a man's sperm travels through a tube called the vas deferens. Finally, the woman's uterus and the man's prostate, both in approximately the same location, produce nutrients for the egg and sperm, respectively.

MALE REPRODUCTIVE ANATOMY

Bladder: The muscular reservoir that stores urine before being released during urination.

Prostate gland: A walnut-sized gland that produces a thin, milky fluid which acts to nourish sperm and provide part of the substance that forms semen. Surrounds the junction of the vas deferens and the urethra.

Cowper's gland: Two pea-sized glands that produce a clear, lubricating fluid designed to provide nutrients for sperm survival. It also helps to neutralize the acidity of any urine remaining in the urethra.

Vas deferens: A pair of approximately 15-inch-long tubes that carry sperm to the seminal vesicles. The inner channel is as thin as a hair.

Penis: The male organ through which urine and semen are emitted. Becomes erect during sexual arousal, facilitating intercourse.

Urethra: The narrow 8-inch tube that can carry either urine or semen through the penis and out of the body.

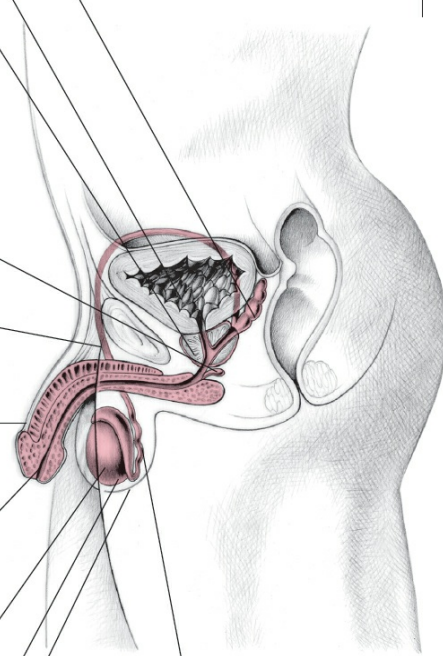
Testes (testicles): The pair of oval-shaped sex glands that produce testosterone and an average of 200 million sperm daily. The left testes usually hangs lower than the right.

Seminiferous tubules: Microscopic tubes in the testes in which sperm are produced.

Scrotum: The loose, thin skin pouch surrounding the testicles, which thins out and contracts in response to external temperatures.

Seminal vesicles: Saclike structures that produce a nourishing substance for sperm and form about 65% of the seminal fluid in which sperm travel.

Epididymis: A 20-foot-long series of ultra-thin, tightly coiled tubes that mature and store young sperm cells. Takes about 2 to 12 days for sperm to pass through, during which time they develop swimming ability and attain fertilization capability. Together the epididymis and vas deferens store about 700 million sperm at a time.



It is no coincidence that men's testes are situated outside their bodies, since the sperm require conditions 3 to 4 degrees below normal body temperature to develop. Apparently, that design works quite well, because most men produce 100 to 300 million sperm a day! To ensure that the testicles remain cool, the scrotum that surrounds the testes thickens and thins in response to the external temperature. For example, if a man jumps into a cold lake, the scrotum contracts, becoming very thick and pulling the testes against his body. But if he takes a hot shower, the scrotum thins out, allowing the testes to drop down. In this way, the body maintains a steady testicular temperature in various thermal conditions.

Even though sperm are produced on a daily basis, the production of an individual sperm can take about 72 days to complete. They begin their reproductive journey inside the long, thin seminiferous tubules in the testes before going into “cold storage” in the epididymis, a series of 20-foot-long tightly coiled tubes that act as a school for sperm to perfect their swimming technique. It takes them anywhere from about 2 to 12 days to pass through the epididymis.

Before ejaculation, the Cowper’s gland releases a slippery, clear fluid designed to facilitate sperm survival and neutralize the acidity of the urethra. People often confuse these few drops of “leaking” with a man’s inability to control his ejaculation. In reality, it is an absolutely healthy and necessary sexual function. But the pre-ejaculate may contain live sperm, which is why “withdrawal” is not recommended for birth control (though, in fact, it is far more effective than risking completely unprotected intercourse!). At ejaculation itself, the prostate and seminal vesicles supply the nutrient-rich fluid in which sperm travel. One of the reasons it takes a while for men to be able to ejaculate again is that the seminal vesicle and prostate need time to manufacture more seminal fluid.

While we are on the subject of what men emit during ejaculation, you can rest assured that one of the things they do not emit is urine! One of the reasons it’s difficult for a man to urinate when he is sexually aroused is that a muscular sphincter closes the opening of the bladder, preventing him from urinating and ejaculating simultaneously. So, women around the world can breathe a collective sigh of relief.

What does happen at ejaculation is that the sperm travel from the epididymis through the vas deferens and out the urethra. On the way, the fluid from the seminal vesicles also enters the vas deferens and mixes with the sperm. The seminal vesicles are two saclike structures that produce part of the seminal fluid in which the sperm travels. The other source of fluid for semen comes from the prostate gland.*

When a man ejaculates inside a woman, the length of time the sperm can survive is directly related to where the woman is in her cycle. If a woman is nowhere near ovulation, and is therefore not fertile, the sperm won’t survive more than several hours. However, if she is approaching ovulation, and has wet-quality cervical fluid, sperm can live up to five days. This is discussed in greater detail later.

The initial gelatin-like consistency of the semen acts to prevent early leakage out of the vagina, while sugar within the gel provides instant energy for sperm motility. But once it has served this purpose, the gel tends to melt and leak out in the ensuing hours, much to the chagrin of countless women, no doubt.

Sperm comprise a surprisingly small fraction of the semen itself. The composition of semen is approximately as follows:

Fluid from the seminal vesicles:	65%
Fluid from the prostate gland:	30%
Sperm and testicular fluid:	5%

Portions of the following list should shed light on why it is that many women who are trying to avoid pregnancy have good reason to be cautious:

Number of sperm produced per day:	100–300 million
Typical number of sperm per ejaculate (2–6 ml):	100–500 million
Typical number of sperm per milliliter:	20–200 million
Number of days sperm can live in fertile cervical fluid:	5 days

The good news is that with a method like FAM, women wanting to avoid pregnancy need not concern themselves with whether men produce one or ten million sperm per hour. The point is that once women determine when in their cycle they are not fertile themselves, it doesn't matter how many sperm the man produces. If there is no egg about to be released, there is no physiological way a pregnancy can occur.

Finally Making Sense of Your Menstrual Cycle

Cindy and Brent are classic examples of educated people being misinformed about normal cycle lengths. They weren't clients of mine, but Brent told me his theory about the effect of stress on women's cycles when he heard that I was writing a book on Fertility Awareness. He said his wife was so paranoid about getting pregnant that she would consistently worry herself into having delayed periods. Cindy's anxiety would lead her to continually buy pregnancy tests, which always turned out negative, followed by menstruation within a day or two of getting those results. Based on this pattern, Brent deduced that anxiety itself was causing the delay, and that the reassuring news of a negative pregnancy test allowed her to finally relax enough for her period to start.

Seems logical, right? Wrong. As you will learn, starting to worry about an unplanned pregnancy just a few days before your period is due will not delay it, since the time from ovulation to menstruation (the luteal phase) is a finite length that is not affected by external factors such as stress. In reality, what was undoubtedly happening was that Cindy had longer than average cycles, perhaps 32 days or so. But since she was under the commonly held illusion

that cycles were 28 days, she would start to panic when Day 30 or 31 arrived. Finally, by Day 32, she would take a pregnancy test, it would come out negative, and lo and behold, she would get her period the next day. But it wasn't the negative test results that were allowing her menstruation to begin. It was that her cycles were almost certainly about 32 days anyway!



"Then, when you're thirteen . . . a mysterious thing happens once a month, Shirley. . . You begin to receive a MasterCard bill."

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✿ THE GREAT RACE

There's a time when you have to explain to your children why they were born, and it's a marvelous thing if you know the reason by then.

—HAZEL SCOTT

Oh, yawn, here we go again . . . the menstrual cycle. Now, before you start whining about how boring this section is going to be, trust me—it's really one of the most remarkable things that happen within your body. The menstrual cycle is like a fine-tuned symphony, a fascinating interplay of hormones and physiological responses. By the end of this chapter, I think you'll agree.

The bottom line is that your body prepares for a potential pregnancy every cycle, whether or not you want to conceive. In essence, your hormones do not always confer with your heart. They just do their thing regardless of your intentions.*

Every cycle, under the influence of Follicle Stimulating Hormone (FSH), around 15 to 20 eggs start to mature in each ovary. Each egg is encased in its own follicle. The follicles produce estrogen, the hormone necessary for ovulation to eventually occur. A race progresses for one follicle to become the largest. Eventually ovulation occurs when one ovary releases an egg from the most dominant follicle. (The other eggs that began to ripen disintegrate in a process called atresia.) It's fairly arbitrary which ovary ultimately releases the egg. Ovulation doesn't necessarily alternate between ovaries, as is often thought.

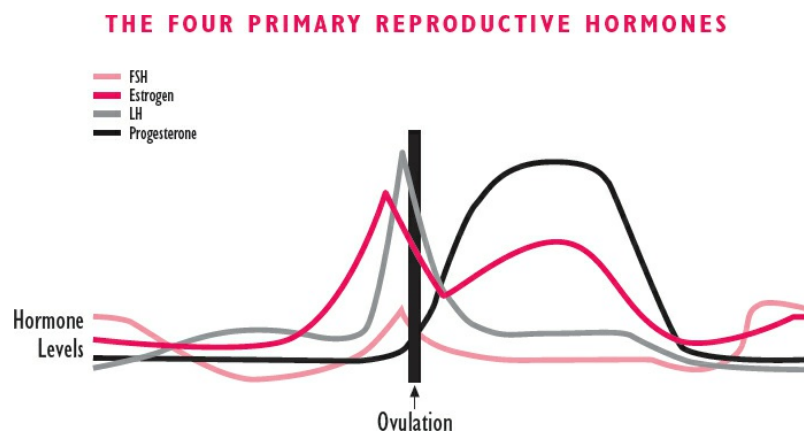
Although it averages about 2 weeks, this race to release an egg can take anywhere from about 8 to 21 days or longer to complete. The primary factor that determines how long it will take before you ovulate is how soon your body reaches an estrogen threshold. The high levels of estrogen will trigger an abrupt surge of luteinizing hormone (LH). This LH surge causes the egg to literally pass through the ovarian wall, usually within a day or so of its onset. After ovulation, the egg tumbles out into the pelvic cavity, where it is quickly swept up by the fingerlike projections of the fallopian tubes, called fimbria.

Occasionally, the fimbria do not retrieve the egg, and therefore pregnancy would not be possible that cycle.

At this point you may be thinking, what is she talking about? How many hormones are we dealing with here? Actually, a tidy little way for you to remember the general order of the hormones is through the expression FELOP, which stands for

Follicle Stimulating Hormone
Estrogen
Luteinizing Hormone
Ovulation
Progestosterone

So, the next time you're at a party and someone asks, you'll have a quick reply ready. Of course, things could get ugly if someone asks you for an even more detailed explanation of the menstrual cycle. For that you should read the more comprehensive version of the cycle elaborated in [Appendix C](#).



Following the release of the egg from the ovary, the follicle that held the egg collapses on itself, becoming the corpus luteum (or literally, “yellow body”). The corpus luteum remains behind on the interior ovarian wall and starts releasing progesterone. It has a finite life span of about 12 to 16 days, with an average length of about 13 to 14 days. Rarely does it vary more than a couple of days for each individual woman, because being ensconced on the

ovarian wall, it's unaffected by the stresses of everyday life.

Thus, for example, if Erica's luteal phase (the phase following ovulation) is normally 13 days, it may occasionally be 12 days, occasionally 14. Sometimes, luteal phases may be 11 or even 10 days. These are considered within a normal range, but phases less than 10 days are problematic, especially if a couple is trying to get pregnant. (I discuss short luteal phases in greater detail in [Chapters 6 and 9](#).)

Progesterone, the hormone released by the corpus luteum, is incredibly important for a woman's fertility because it does three things:

1. Prevents the release of all other eggs for the rest of the cycle.
2. Causes the uterine lining (endometrium) to thicken and sustain itself until the corpus luteum disintegrates about two weeks later.
3. Causes the three primary fertility signs to change. These signs are cervical fluid, waking temperatures, and cervical position.

In a small percentage of cycles, two or more eggs are released during ovulation, but always within a 24-hour period. This phenomenon, called multiple ovulation, is responsible for fraternal twins. The reason more eggs cannot be released later that cycle is due to the powerful effects of progesterone mentioned above. *Progesterone quickly stops the release of all other eggs until the next cycle.* So a woman could not release an egg one day, get pregnant, and then release an egg again weeks or months later. Her body protects that potential pregnancy by preventing the release of more eggs following ovulation.*

✿ OVULATION: THE DIVIDING LINE

The first part of the cycle, from Day 1 of menses to ovulation, is the follicular (or estrogenic) phase. Its duration can vary considerably from woman to woman and for an individual woman over her lifetime. The second phase of the cycle, from ovulation to the last day before the new period begins, is the luteal (or progestational) phase. It usually has a finite life span of 12 to 16 days. What this ultimately means is that the day of ovulation determines the length of your cycle.

For example, a woman could have an extremely delayed ovulation due to stress or other factors, not ovulating until Day 30 or so. This would result in about a 44-day cycle (30 plus 14). Thus, just because a woman is on Day 44 and hasn't gotten her period yet doesn't necessarily mean she's pregnant.

My brother Raymond was editing the manuscript for the first edition of this book when he got a call from his good friend Marcella, who lives in Los Angeles. She seemed mildly panicked about possibly being pregnant and was calling him for advice. (Ray was accustomed to his friends' inquiries, since he possessed a certain expertise on fertility that few men do.)

She explained that she was worried because she was on Day 42 and had never had a cycle longer than 32 days. Clearly enjoying his role as supportive friend and menstrual detective, Ray proceeded to record all the relevant information. Sex with her boyfriend on Day 5. Check. "Sloppy withdrawal." Check. No cycles ever less than 25 days. Check.

The data convinced Ray that pregnancy was extremely unlikely. He then went on to explain to Marcella that if she had been sick, or traveled, or had experienced a lot of stress before she ovulated, it was possible ovulation could have been delayed days or even weeks, thus causing the extended cycle. She was not terribly reassured. "You must have been stressed out about something," he said. Marcella insisted that all was basically uneventful in her life, and that the only unusual anxiety she was experiencing had crept in just a few days earlier,

about a week after her last period was “due.”

Beyond being a menstrual detective, Ray was also an amateur historian. He loved dates. He took out his calendar and stared at it. “Marcella,” he said coyly, “let me just verify. Your last period started on January 6, so you normally would’ve ovulated around January 20, give or take a few days.”

“Yeah, I guess,” she mumbled nervously.

“So, I’m just curious, on January 17, did you just sleep through the earthquake, or what?”

There was a distinct pause.

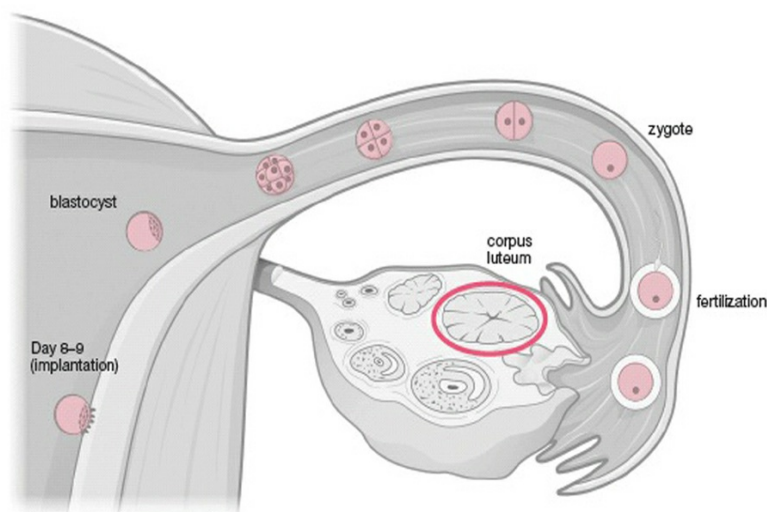
“Oh God, I forgot about that! That was one of the scariest things I’ve ever been through, 6.7 on the Richter scale! It was awful.” Ray laughed and told her to relax, that she almost certainly wasn’t pregnant. Three days later Marcella called back, delighted to inform him that she had just gotten her period. Ray suggested that the next time a massive quake strikes, the mayor should go on citywide TV. That way he could assure the women of L.A. that if their periods are late, it’s quite possible there’s nothing to worry about. It could just be your garden-variety, seismically delayed ovulation.

It should also be noted that a woman may occasionally not release an egg at all. This is referred to as an “anovulatory cycle.” These types of cycles may range from very short to exceedingly long, and are discussed further in [Chapter 7](#).

🌸 THE DRAMA OF CONCEPTION

When the egg passes through the ovarian wall, it's usually picked up by the fallopian tube. Once it's released, it can take less than a minute for the fimbria to draw the egg into the tube with gentle sweeping motions. Assuming fertilization does not occur, the egg remains alive for a maximum of 24 hours, after which it simply disintegrates and gets reabsorbed by the body. The egg is about the size of the period at the end of this sentence, hardly large enough to be seen reclining on the sanitary napkin, even if it were to come out during your period.*

If fertilization does occur, it will take place in the outer third of the fallopian tube within a few hours of ovulation. (It does not take place in the uterus, as is commonly believed.) The lucky sperm may have journeyed up to several hours for this momentous rendezvous. The fertilized egg will then continue to be pulled toward the uterus by vibrating cilia, hairlike projections that line the fallopian tubes. After a week or so, it reaches its ultimate destination of the uterine lining and begins the burrowing-in process. (See [The Beauty of Reproductive Biology](#) section of the color insert.)



© OpenStax College, *Human Pregnancy and Birth*

In order for conception to occur, though, there must be three factors working together: the egg, the sperm, and a *medium* in which the sperm can

travel to reach the fallopian tubes. The medium is fertile-quality cervical fluid, which acts as a living conduit to direct the sperm through the cervix. Women produce cervical fluid under the influence of increasing levels of estrogen in the first part of the cycle. Because the sperm can live up to five days in fertile-quality cervical fluid, it's possible to have intercourse on Monday and get pregnant from that act on Friday. So, without wanting to burst anyone's bubble, you could enjoy a deliciously romantic, snowy evening making love in front of the fire, but not actually conceive until five days later, while you're jogging and your sweetheart is on a plane to attend a meeting in Kalamazoo.

In any case, the body's response to conception is truly amazing. If you were to become pregnant, the embryo would be lost if the endometrium began to disintegrate and were shed in the form of menstruation, as it usually is, cycle after cycle. So the pregnant body has a means of preventing that from happening. As soon as the fertilized egg burrows into the lining, it starts releasing a pregnancy hormone, HCG (human chorionic gonadotropin), which sends a message back to the corpus luteum left behind on the ovarian wall. HCG signals the corpus luteum to remain alive beyond its usual maximum of 16 days, continuing to release progesterone long enough to sustain the nourishing lining. After a few months, the placenta takes over, not only maintaining the endometrium, but providing all the oxygen and nutrients the fetus needs to thrive.

One of the reasons for "false negative" pregnancy tests is that the test is often done too soon, before the egg has had a chance to implant and start releasing HCG, or before the HCG has had time to reach a high-enough level to be detected in the urine or bloodstream. Of course, the occurrence of such misleading results could be decreased if women charted their cycles and could identify for themselves when ovulation, and therefore implantation, most likely took place.

I hope the last few pages have convinced you that your menstrual cycle is anything but boring, but is in fact an amazing orchestration of biological events. Far from being only about menstruation, it is a continual hormonal chorus working together toward the ultimate goal of releasing and nurturing a healthy egg. And, as you will see in the next chapter, your body gives you conspicuous signs to help you understand on a daily basis what is transpiring within.

The Three Primary Fertility Signs

I was completely ignorant of this bodily change every cycle. Boy, what my mother never told me. In fact, I learned about love and baby making from a neighbor boy's declaration that a man puts his penis in a woman's "china."

—KELLEY HEIL, a first-edition *TCOYF* reader

Ask a typical woman whether she is aware that her body is a walking biological computer containing the most enlightening information about her fertility, and you're likely to be met with a blank stare. But the truth is, all women of reproductive age can easily learn how to observe and chart the three primary fertility signs that their bodies produce. This information can then be used to tell them numerous things about their cycle, the most obvious being whether they can or can't get pregnant on any given day.

As you know, the three primary fertility signs virtually all ovulating women produce are:

1. cervical fluid
2. waking temperature
3. cervical position

But before you learn about each sign individually, you should take a look at the key charting terms in the box that follows.

🌸 CERVICAL FLUID

One of the first things that may strike you when you start charting is that there is a distinct pattern of cervical fluid throughout your cycle. In fact, most women comment that before they learned how to chart, they often noticed mysterious secretions that seemed to come out at arbitrary times, but found it “gross” and confusing, never realizing that it served a purpose and followed an obvious pattern.

KEY CHARTING TERMS FREQUENTLY USED IN THE BOOK

You should review the list of definitions below. It’s basically a cheat sheet for charting that will help you to internalize the rest of the book.

Secretions	Cervical fluid, unless mentioned otherwise.
Sticky	Cervical fluid that has a non-wet consistency such as pasty or gummy and causes a dry or sticky vaginal sensation.
Creamy	Refers to any type of transitional and fertile <i>wet</i> cervical fluid on the continuum between sticky and eggwhite. It can include numerous types that you may experience yourself, including but certainly not limited to a type that resembles hand cream.
Eggwhite	Eggwhite-quality cervical fluid, which is defined as either stretchy, clear, or lubricative. Note that “eggwhite” always includes the concept of lubricative vaginal <i>sensation</i> , as well. It is the most fertile quality.
Basic Infertile Pattern	Unchanging dryness or sticky (non-wet) cervical fluid that women experience immediately after menstruation, or for an extended time when not ovulating.
Point of Change	The point in the cycle when the Basic Infertile Pattern transitions to a more fertile state, either from dry to sticky (non-wet), or from sticky to creamy (wet).
Temps	Basal body temperatures (BBT), which are waking temperatures, or temperatures first thing upon awakening.
Thermal shift	The rise in waking temperatures that divides the preovulatory low temperatures from the postovulatory high temperatures on an ovulatory chart.
Biphasic chart	A temperature chart that reflects ovulation because it shows two levels of temperatures: a pattern of relatively low temps in the preovulatory phase followed by higher temps in the postovulatory phase for about 12 to 16 days.

And, if you are like most women when they learn how to observe their fertility signs, the second thing you may experience is a sense of frustration and even anger when you realize how little you understood your body before. No, you were probably not experiencing recurring vaginal infections all the time. No, you were not dirty and in need of douching away the “discharge.” In fact, the beauty of charting your cervical fluid is that you will be able to discern once and for all what is absolutely normal from the symptomatic discharge that results from a true vaginal infection. For this reason, I would suggest you never again use the “d-word” to describe your healthy cervical fluid. After all, we don’t refer to men’s healthy semen as “discharge.”

Cervical fluid is to the woman what seminal fluid is to the man. Since men are always fertile, they produce seminal fluid every day. Women, on the other hand, are fertile only a few days around ovulation, and therefore produce the substance necessary for sperm nourishment and mobility only during that time. It’s fairly intuitive. Sperm require a medium in which to live, move, and thrive—otherwise they will quickly die. Once the sperm travel from the penis to the vagina, they need an analogous substance to sustain them. But the only time it’s crucial for sperm to survive is around the time the egg is released. This is why women produce the substance that resembles semen for only a few days per cycle.

Ultimately, cervical fluid has several key functions. It provides an alkaline medium to protect the sperm from the otherwise acidic vagina, it nourishes the sperm, it acts as a filtering mechanism, and perhaps most important, it serves as a medium in which the sperm can move.

In a nutshell, a woman’s cervical fluid starts to develop and resemble a man’s seminal fluid in a very predictable way. As she gets closer to ovulation, she usually sees a pattern of increasing wetness. But each cycle may be different, with the main point being that the secretions become ever more fertile as she approaches ovulation. So, for example, after her period and directly under the influence of rising estrogen, her cervical fluid will develop more fertile characteristics. The Continuum of Cervical Fluid from Sticky to Creamy to Eggwhite table below shows an example of how a woman’s shows an example of how a woman’s cervical fluid *might* develop. But keep in mind that this is only to help you recognize your own particular cyclical patterns.

Dry

Right after your period, you may have a dry vaginal sensation and observe *nothing* near the vaginal opening. Or you may notice a slight moisture, similar to the way it would feel if you touched the inside of your cheek for a second. Your finger would have a dampness on it that would evaporate within a few seconds. This is the way the vaginal opening typically feels when there is no cervical fluid.

After perhaps a few days of this dryness, you will notice a Point of Change that occurs as estrogen starts to rise, indicating that you are now starting to approach ovulation. It is the first time that you notice cervical fluid after your period ends. For some it may occur on Day 6, for others maybe Day 11. Each woman is different, which is why it's so important to learn how your own body responds to estrogen.

Sticky

What exactly it looks and feels like is unique to you, but the important point is that you will notice some type of cervical fluid. Perhaps it's *sticky*, like the paste you used in grade school. Or it might be flaky. Occasionally, it may even resemble drying rubber cement in that it's somewhat rubbery and "springy," but the main point is that it's not really *wet*. And while this particular type of cervical fluid is not likely conducive to sperm survival, for contraceptive purposes, it must be considered possibly fertile if found before ovulation.

Creamy

The next type of cervical fluid you may notice for several days is a wetter type. Some may describe it as *creamy* or lotion-like. It may tend to feel rather cold at the vaginal opening, just as hand lotion itself feels cool to the touch. It may even stretch up to $\frac{3}{4}$ inch, but it will break. The most important point about this type of cervical fluid is that it's wet, but not yet the quality of the next and most fertile type. Because it comes between sticky and the most fertile, slippery quality described next, it's considered a transitional type of secretion.

Eggwhite

The final and most fertile cervical fluid is also the most easy to identify

because it often resembles raw *eggwhite*. Its most obvious characteristics are that it usually stretches at least 1 inch, or is clear, or causes a lubricative vaginal sensation (the ability to stretch is called *spinnbarkeit*, or *spin* for short). In fact, just memorize “stretchy, clear, or lubricative”—make it your mantra.

It may also be partially streaked, and it could be yellow-, pink-, or red-tinged, all indicating the presence of possible ovulatory bleeding. When you stretch it, it won't break. In addition, it could be so watery that you can't actually see anything, but can only feel the slipperiness as a vaginal sensation. Finally, and as many of you will have already noticed, it will often leave a fairly symmetrical circle of fluid on your underwear due to its high water content. Regardless, the crucial determinant of this quality cervical fluid is the wet and lubricative vaginal sensation you usually feel, whether or not you can actually see anything.*

**THE CONTINUUM OF CERVICAL FLUID FROM
STICKY TO CREAMY TO EGGWHITE**

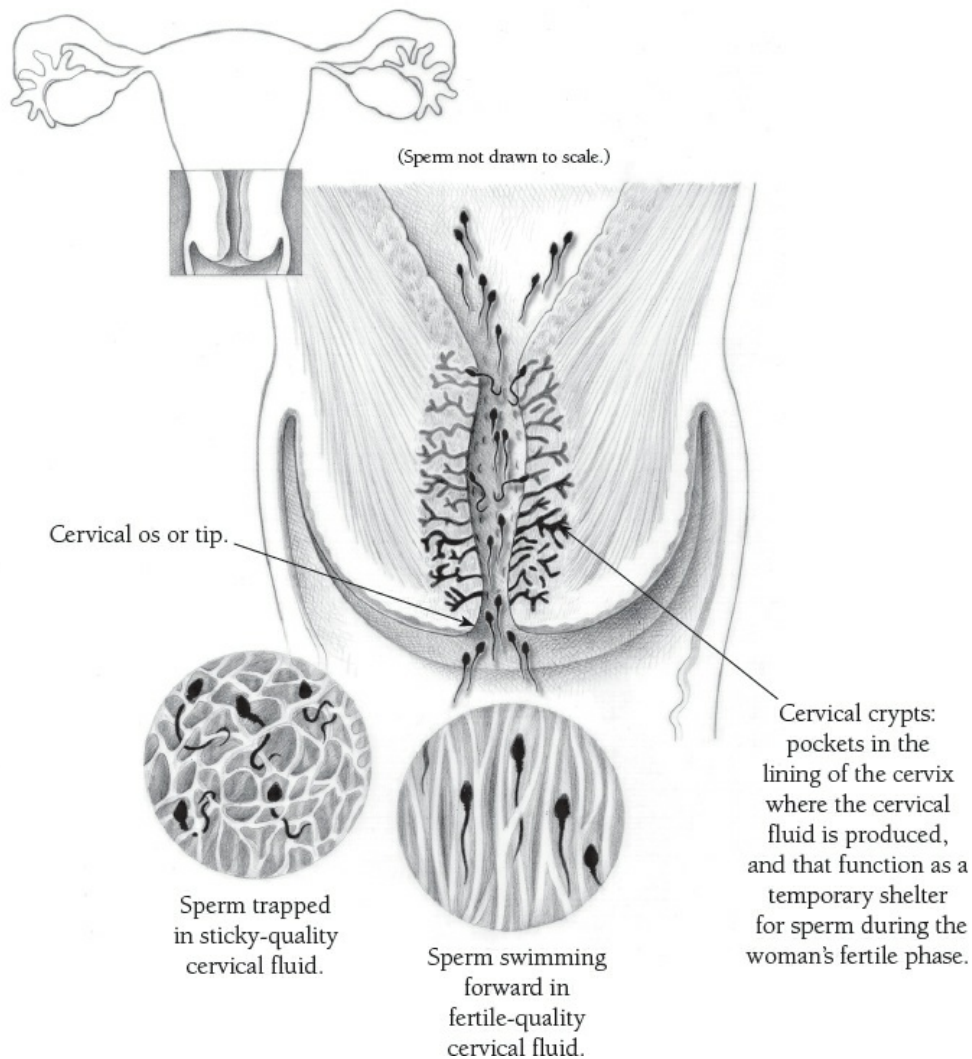
Type	Vaginal Sensation	Consistency or Texture	Stretchiness	Color	Further Comments
Nothing	Dry	(—)	(—)	(—)	Feeling when wiping with tissue: Dry Scratchy Halting Fertility: Extremely low
Sticky	Dry Sticky	Sticky—and/or: Thick Tacky Pasty Crumbly Gummy/dry Springy/dry	May form up to ¼"-thick peaks If rubbery, may stretch more, but will snap or break because it isn't wet.	White and/or Yellow Cloudy Opaque	Feeling when wiping with tissue: Dry Scratchy Halting Fertility: Low Still, before ovulation, any type of cervical fluid is considered potentially fertile when using FAM for birth control.
Creamy	Wet Moist Cold	Wet—and/or: Creamy Lotiony Milky Clumpy Gummy/wet Springy/wet May form wet mounds	May stretch to ¾" before breaking easily	White and/or Opaque	Feeling when wiping with tissue: Smooth Fertility: High Considered the <i>transitional</i> type of cervical fluid on the continuum from least to most fertile.
Eggwhite	Wet Lubricative	Lubricative Slippery Gushing or watery Thin, thready, or thick	Stretches at least 1" without breaking	Clear and/or Cloudy Streaked Red-tinged	Feeling when wiping with tissue: Slippery Lubricative Gliding Fertility: Extremely high The most fertile quality cervical fluid: stretchy, clear, or lubricative.

WHAT'S THE DEAL WITH CREAMY?

There are so many personal variations of cervical fluid that what you may experience does not necessarily fit any of the descriptions in the opposite table. The important point is for you to internalize the concept of a pattern from dry to wet. If you are ovulating, your cervical fluid after your period ends will evolve from dry or sticky to wetter and more slippery as you approach ovulation. The point is that almost all women experience a *transition* from dryer to wetter.

Thus, I've chosen the word "creamy" to describe the category of wetness in between sticky and eggwhite, since so many women experience it. But you may prefer to use a different term that is more descriptive of what you yourself observe. Maybe you would rather think of it as just "wettish" or "transitional." That's fine; whatever works for you!

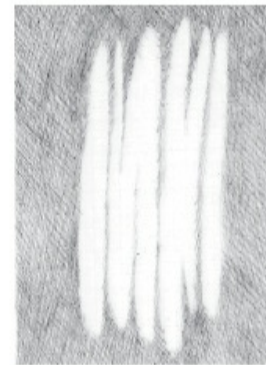
THE CERVIX WITH MAGNIFICATION OF SPERM IN RELATIVELY INFERTILE AND FERTILE CERVICAL FLUID



CERVICAL FLUID ON UNDERWEAR



Very fertile-quality cervical fluid often forms a fairly symmetrical round circle, due to its high concentration of water.



Nonwet-quality cervical fluid tends to form more of a rectangle or line on your underwear.

Again, the most important feature of this extremely fertile cervical fluid is its slippery quality. You may even notice that the lubricative vaginal *sensation* that usually accompanies it continues a day or two beyond the actual presence of the stretchy or clear cervical fluid itself. That sensation indicates that you are still extremely fertile. Of course, vaginal sensation should not be confused with sexual lubrication. Vaginal sensation is something you simply feel throughout the day, or notice while wiping, without actually observing anything. In the end, *quality is more important than quantity* when evaluating the fertility of cervical fluid. Regardless, the way all of these types of secretions are recorded can be seen in the chart below.

Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40									
Eggwhite																																																	
Creamy																																																	
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Fertile Phase and PEAK DAY																																																	
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CERVICAL FLUID DESCRIPTION																																																	

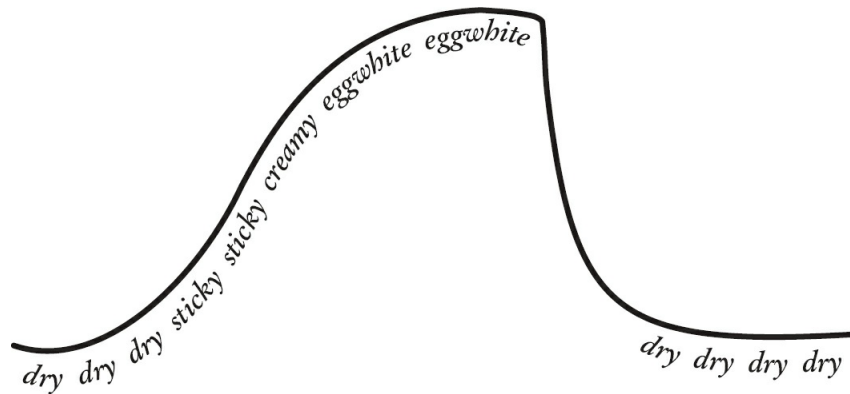
Alyssa’s chart. A typical cervical fluid pattern. There is usually a gradual progression from dry to sticky to wetter types, seen here in 2 days each of sticky, creamy, and eggwhite. Also notice that the vaginal sensation generally corresponds with the cervical fluid (“lube” is used to signify a lubricative sensation at the vaginal opening). Finally, observe how Alyssa records Day 1 of the new menses on the same chart before repeating it again on a new chart. Every cycle is clearly delineated with a vertical closing line. This cycle was 30 days.

After estrogen levels peak, the cervical fluid changes abruptly, often within a few hours. This is due to the sudden drop in estrogen, combined with the surge of progesterone as the egg is about to be released. After ovulation, the non-fertile cervical fluid forms a thick sticky plug that impedes sperm penetration. In addition, the acidic vaginal environment destroys the sperm that aren’t trapped in the plug.

In other words, it may take up to a week for the fertile-quality cervical fluid to build up, but then it will usually dry up in less than a day. This sudden drying of the cervical fluid is the best way to know that estrogen has plummeted and that progesterone has taken over. The lack of wet cervical fluid typically lasts the duration of the cycle.

Finally, in the day or so before menstruation, women may occasionally notice a very wet, watery sensation, which in some women feels like watery eggwhite. This is thought to be due to the drop in progesterone that precedes the disintegration of the lining of the uterus. The first part of the uterine lining to flow out is typically water, hence the very wet sensation. Obviously, this wet fluid immediately preceding menstruation does not indicate a fertile time, since the egg will have disintegrated about two weeks before.

One way to envision the changes in your cervical fluid is through the image of a wave, which gradually builds higher and higher until it abruptly crashes down. Though our hormones aren’t quite so dramatic, the analogy still holds. Note in the graphic below how the phases of cervical fluid buildup and subsequent decrease are not symmetrical.



A trick to help you identify the actual quality of the cervical fluid and vaginal sensation is to notice what it feels like to run tissue across your vaginal lips. Does it feel dry, impeding movement? Is it smooth? Or does it simply glide across? When you are dry or sticky, the tissue won't pass across your vaginal lips smoothly. But as you approach ovulation, your cervical fluid gets progressively more lubricative, and thus the tissue should glide easily.

Knowing What's What

One of the saddest examples of a woman not being taught the nature of normal cervical fluid was a client I had years ago.

Brandy was a young woman who attended my class after having been on the pill for six years. Prior to my seminar she endured a completely unnecessary diagnostic test—all because she had never learned how to understand the amazing signs her body produces every cycle.

Brandy noticed that every now and then, when she had a bowel movement, she would feel a slippery substance when she used the toilet paper. She became quite concerned that perhaps something was wrong with her intestinal tract, because she noticed it only after using the bathroom, and only periodically. The doctor suggested she have a colonoscopy to rule out inflammatory bowel disease or polyps. But why?

Brandy was experiencing the absolutely normal and common

occurrence of fertile eggwhite flowing from the vagina. Since that type is so slippery and profuse, it can easily be spread to the rectum with tissue paper. Of course, it's no wonder she noticed this slippery substance only every now and then, since she produced eggwhite only around ovulation.

This is not to suggest that colonoscopies are unwarranted. In fact, as part of taking charge of your overall health, you should get one every 5 to 10 years starting at age 50. But my hunch is that if you are reading this book, you are not 50 yet. In addition, if you were taught the ins and outs of slippery cervical fluid, as it were, you would know to specifically be looking for signs of it, especially when bearing down on the toilet.

The stories of women like Brandy having unnecessary and anxiety-producing tests is one of the things that motivates me to educate women about the simple signs their own bodies tell them about their reproductive health. This is not to say that women don't occasionally have genuine infections or other problems and medical concerns. The point is simply that women should be taught what is normal so that they can better detect disorders in themselves.

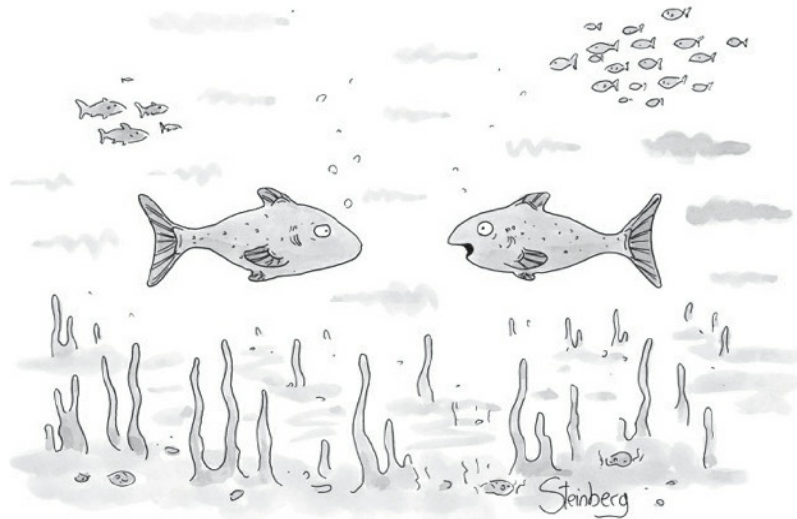
You should also be aware that there are certain factors that can potentially mask cervical fluid, such as:

- douching
- vaginal infections
- seminal fluid
- arousal fluid
- spermicides and lubricants
- antihistamines (which can dry it)

In addition, women with an unchanging gummy, rubber cement, or wet type of secretion that continues for weeks or longer may have cervicitis or cervical erosion. Neither of these conditions is serious, but they should be treated, if for no other reason than that it makes it easier to accurately observe your cervical fluid.

Finally, women often wonder how cervical fluid differs from seminal fluid and arousal fluid. The latter two are much thinner and typically dry

quicker on your finger, whereas cervical fluid tends to remain until you wash it off. I discuss this in greater detail in the following chapter. Of course, once again, because you have three fertility signs to rely on, you can have the peace of mind of knowing that you can still interpret your fertility by cross-checking the other two signs if there is any ambiguity.



"It's wet, but it's a dry wet."

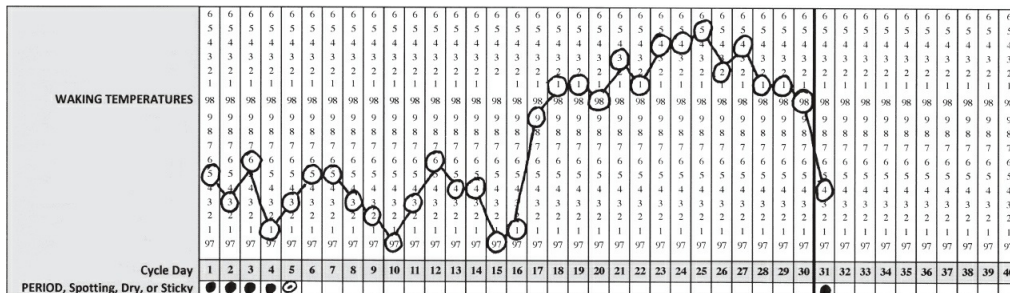
© Steinberg/The New Yorker Collection/www.cartoonbank.com

WAKING (BASAL BODY) TEMPERATURE

Perhaps the easiest sign to observe is the waking temperature, for the simple reason that it is usually very graphic and objective. Many women who have charted their fertility for a few months find that it becomes a fun challenge to predict the day their temps will shift.

A woman's preovulatory waking temps typically range from about 97.0 to 97.7 degrees Fahrenheit, with postovulatory temps rising to about 97.8 and higher. After ovulation, they will usually stay elevated until her next period, about 12 to 16 days later. If she were to become pregnant, they would remain high throughout much of her pregnancy, gradually dropping a few months before childbirth.

Temps typically rise within a day or so after ovulation and are the result of the heat-inducing hormone, progesterone. Progesterone is released by the corpus luteum (the follicle that previously housed the egg before it passed through the ovary, as discussed in the last chapter). So, usually, the rise in temps signifies that ovulation has *already* occurred. Waking temps within a cycle typically look like Ruby's chart below.



Ruby's chart. A typical waking temperature pattern. Note her rise in temperature starting on Day 17, which means that for this particular cycle, ovulation most likely occurred about Day 16. This cycle was 30 days, since she got her next period on Day 31.

When interpreting temps, you'll want to train your eyes to "see the forest through the trees." The key to doing so is to look for a *pattern* of lows and highs. In other words, you'll find that your temps before ovulation will go up and down in a low range, and the temps after ovulation will go up and down in a high range. The trick is to see the whole, and not focus so much on the day-to-day changes.

I learned how helpful this concept was when I first taught at a women's clinic years ago. Within a few weeks of the first class, I would inevitably start getting calls from clients who were convinced they must not be ovulating. But when they read me their temps over the phone (back in the Paleolithic Era, before e-mail), the pattern seemed perfectly evident. I couldn't understand why they didn't see what I saw. Then it dawned on me. They were not seeing the *pattern*, because they were focusing instead on the fact that on Monday it was up, on Tuesday it was down, then back up, and so on. Remember to stand back and see the whole picture. If you find that your temps are not obvious, I would encourage you to chart several cycles before you depend on FAM as a method of birth control.

Preovulatory temps are suppressed by estrogen, whereas postovulatory temps are increased by heat-inducing progesterone. In fact, one of the ways to remember that the second phase of the cycle is the "progesterone" phase is to think of it as the "pro-gestation" phase. In other words, this is the phase of the cycle that is warmer, as if designed to act as a human incubator to nurture an egg that may have just been fertilized.

I want to stress here again that the rise in waking temps almost always indicates that ovulation has already occurred. It does not reveal impending ovulation, as do the other two fertility signs, the cervical fluid and cervical position. In addition, you should also be aware that in only a minority of cycles will women ovulate at the lowest point of their temperature graph. Because a pre-ovulatory temperature dip is so rare, women should not rely on its occurrence for fertility purposes. Rather, they should use the cervical fluid and cervical position to anticipate approaching ovulation.

You should be aware of certain factors that can increase your waking temps:

- having a fever
- drinking alcohol the night before
- getting less than three consecutive hours sleep before taking it
- taking it at a substantially different time than usual
- using an electric blanket or heating pad when you normally don't

However, as you will see in the following chapter, you needn't worry about the occasional erratic temps that may result. This is because you can

discount them without compromising the accuracy of the method. In any case, FAM gives you two other daily signs to cross-check your fertility.*

Temps, Stress, and the Dreaded Late Period

Waking temps can be extremely helpful in projecting how long a cycle will be, because they can identify if you've had a delayed ovulation that would cause your cycle to be longer than normal. Remember, once the temps rise, it's typically a set 12 to 16 days until your period. And after you've charted for several cycles, you will be able to determine your particular postovulatory range even more precisely. (As previously discussed, for most women the phase after ovulation doesn't vary more than a couple of days.)

I myself experienced a classic delayed ovulation during a cycle when I was moving from one home to another. Three things were happening in my life during that cycle, any one of which would have been enough to delay ovulation.

I was 31 years old, and my cycles were typically between 26 and 32 days or so. It was November, and I had all the signs that I was approaching ovulation. My cervical fluid was getting wet, and my cervix was rising and becoming more open and soft. On Day 16 of my cycle, though, I had to completely move out of my old home and into the new one, meaning that every speck of dirt had to be washed off the walls of my apartment, and all of my boxes moved into my new house. In addition, I had to lecture at a midwifery school across town before catching a plane during rush hour to lecture at a conference in another state the next morning. So what was going on? I was moving, traveling, and totally stressed out.

My body basically said, "Tell ya what. I think I'll just put your ovulation on hold until you're good and ready." In the end, as you can see from my chart below, I didn't even ovulate until about Day 24, and ended up with a 38-day cycle! Had I not been charting, I probably would have been completely panicked, thinking I was pregnant, since I had never in my life experienced such a long cycle.

THE DOW JONES AVERAGES®

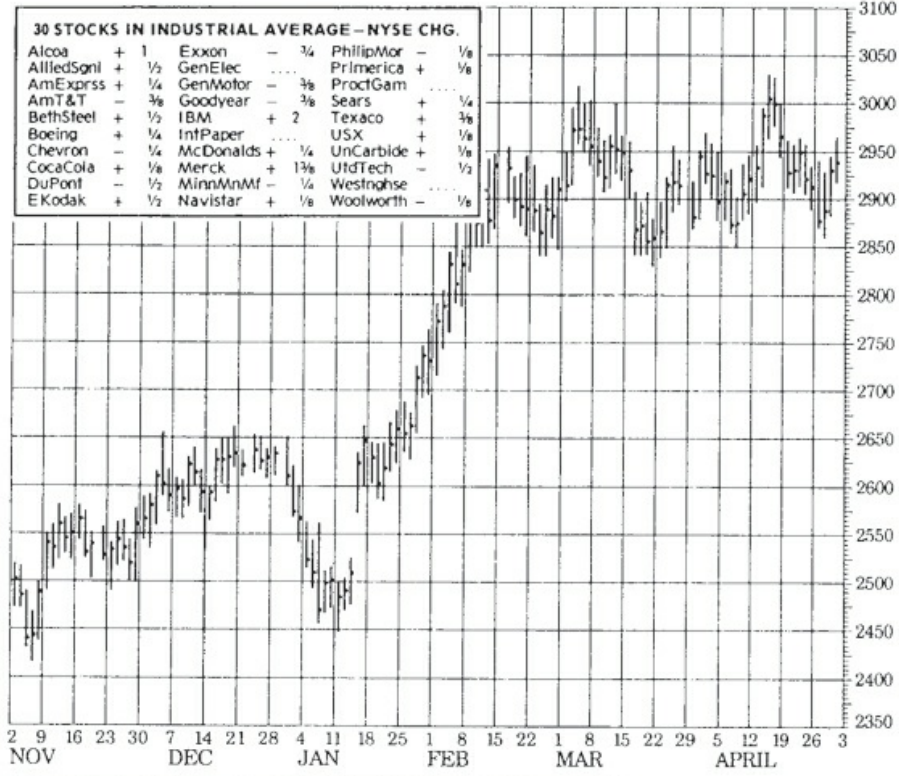
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High
Close
Low

Industrials

30 STOCKS IN INDUSTRIAL AVERAGE - NYSE CHG.

Alcoa	+ 1	Exxon	- 3/4	PhilipMor	- 1/8
AlliedSoni	+ 1/2	GenElec	Primerica	+ 1/8
AmExpress	+ 1/4	GenMotor	- 3/8	ProctGam
AmT&T	- 3/8	Goodyear	- 3/8	Sears	+ 1/4
BethSteel	+ 1/2	IBM	+ 2	Texaco	+ 3/8
Boeing	+ 1/4	InfPaper	USX	+ 1/8
Chevron	- 1/4	McDonalds	+ 1/4	UnCarbide	+ 1/8
CocaCola	+ 1/8	Merck	+ 13/8	UtdTech	- 1/2
DuPont	- 1/2	MinnMnMf	- 1/4	Westnghse
EKodak	+ 1/2	Navistar	+ 1/8	Woolworth	- 1/8



Even Dow Jones has a thermal shift!

✂ CERVICAL POSITION (OPTIONAL SIGN)*

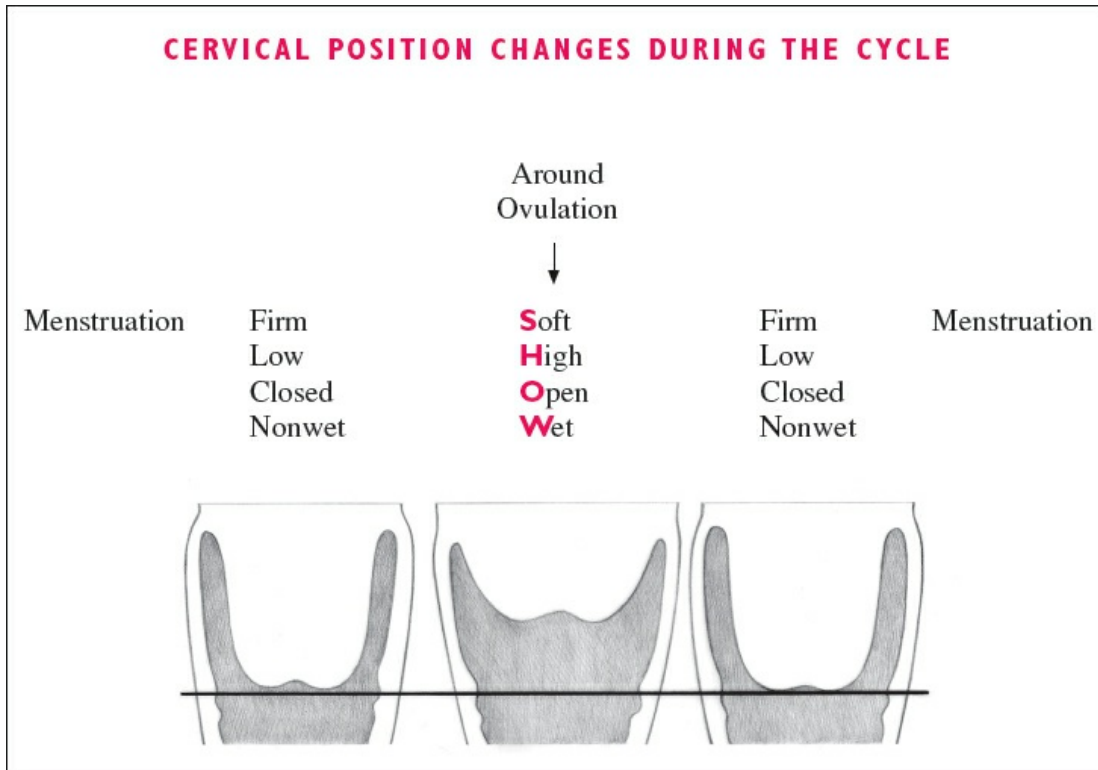
Have you ever noticed that intercourse is occasionally uncomfortable in certain positions? Maybe you have sweet memories of a lazy Sunday morning with your partner. You woke up that day feeling particularly amorous, and slid on top of him. But a week later, when you wanted to relive that wonderful day, you noticed that, instead of experiencing the same delicious feeling, you felt a deep pain inside. What was going on? Why the discomfort this time?

Or perhaps you've noticed that there are times when it is quite easy to insert your diaphragm or cervical cap, but other times it seems almost impossible to find your cervix to insert it properly. Or, worse yet, it may seem like there is not even enough room to insert it. Or has your health practitioner ever commented on your appearing to be fertile during a pelvic exam, even though she had done nothing more than insert a speculum?

All of this has to do with the fact that your cervix, the lower part of the uterus that extends into your vagina, goes through some fascinating changes throughout your cycle, all of which can be fairly easily felt. Your cervix can give you a wealth of information about your fertility, literally at your fingertips.

As with cervical fluid, the cervix itself prepares for a pregnancy every cycle by transforming into a perfect "biological gate" through which the sperm can pass on their way to finding the egg. It does so by becoming soft and open around ovulation in order to allow the sperm passage through the uterus and on to the fallopian tubes. In addition, the cervix rises due to the estrogenic effect on the ligaments that hold the uterus in place.

After your period and under the direct influence of estrogen, your cervix typically starts to change. One of the easiest ways to remember how your cervix feels as you approach ovulation is the acronym SHOW, as seen in the illustration below.



Let's take each facet in the order listed above. The cervix is normally firm like the tip of your nose, and only becomes soft and rather mushy, like your lips, as you approach ovulation. In addition, it's normally fairly low and closed, feeling somewhat like a dimple, and only rises and opens in response to the high levels of estrogen around ovulation. And finally, it's the cervix itself that emits fertile-quality wet cervical fluid when the egg is about to be released. Lola's chart below shows how the changes look when recorded.

	Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
PERIOD, Spotting, Dry, or Sticky		●	●	●	●	○																																								
Cervix																																														

Lola's chart. A typical cervical position pattern. Note how the circles represent how open her cervix is and their position in the box represents how high it is. The letters below the circles stand for the firmness of the cervix—firm, medium, and soft. This cycle was 27 days.

small amount of blood until the progesterone takes over. Spotting can range in color from a mere tinge to a bright red and may be mixed with slippery fertile cervical fluid, and it's typically more common in long cycles.

Courtney represented the classic example of a woman not understanding the distinction between different causes of bleeding. She called saying she wanted to use FAM for birth control, but thought she might not be an appropriate candidate for the method because she had "such short cycles." When I questioned her about them, she said they were "literally every two weeks, but alternated heavy, light, heavy, light."

Of course, what she was experiencing was probably a cycle of typical length with classic ovulatory spotting. I encouraged her to take my Fertility Awareness class. I don't know if she still uses FAM for contraception, but she certainly understands her body a lot better than before.

As for the various pains that women often notice midcycle, there are several theories as to their causes. The important point is that you cannot say with certainty whether they are occurring before, during, or after you've ovulated.

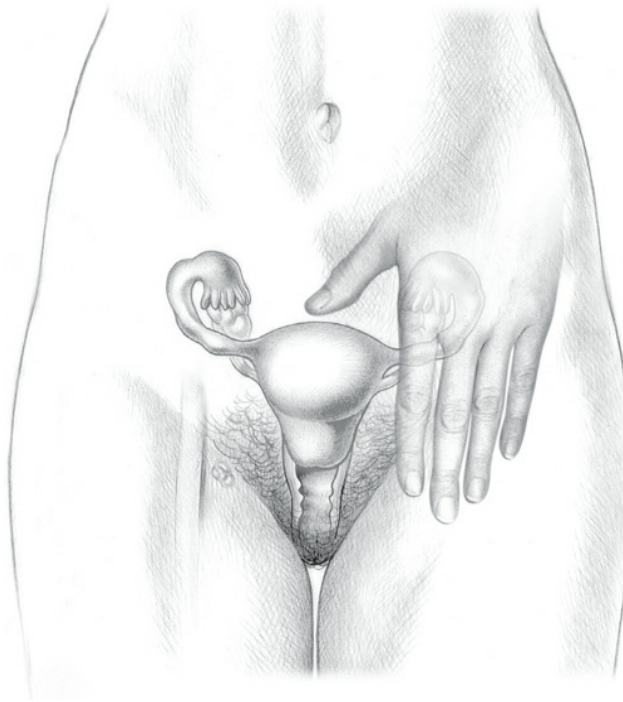
- | | |
|-----------------------|--|
| Dull achiness: | This is thought to be caused by the swelling of numerous follicles in the ovaries as the eggs race for dominance and ultimate ovulation. It's typically felt as a general abdominal achiness, since both ovaries swell with growing follicles as the woman approaches ovulation. |
| A sharp pain: | This could be the few minutes during which the egg passes through the ovarian wall and is usually felt on only one side. |
| Crampiness: | This is probably the result of irritation in the abdominal lining caused by leakage of blood or follicular fluid released from the ruptured egg follicle. It could also be due to contractions of the fallopian tubes around ovulation. |

Because there are several pains that may occur, none of them is considered a primary fertility sign that can be depended upon alone. But ovulatory pain in general is an excellent secondary fertility sign to corroborate the three primary signs. Usually referred to as *mittelschmerz* (midpain), it is felt by many women around ovulation, typically lasts anywhere from a few minutes to a few hours, and is usually felt on the side

where ovulation occurs.

One of the more interesting secondary fertility signs is that of a swollen vulva just before ovulation. As their cervical fluid becomes slippery and wet, some women notice that their vulva becomes puffier on one side (the side on which they are ovulating). And there is another secondary fertility sign that is particularly intriguing because it, too, can help you determine on which side you will ovulate.

If you are especially attentive as you approach ovulation, you may be able to feel a small lymph gland swell to about the size of a pea. This is the lymph node sign, and as seen in the illustration below, can be felt by lying down and placing your hand near your groin. By positioning your middle finger just over the pulsating artery of your leg, your index finger may be able to feel the tender and enlarged lymph gland. This usually indicates the side on which ovulation occurs. It's certainly not necessary to chart, but it's fun to have yet one more sign to observe.



Checking the lymph node as you approach ovulation

In addition to those signs previously listed, you may find through charting that you yourself have some unique secondary fertility signs. I've certainly

heard of many in my years of counseling women:

Jessica gets hiccups as ovulation approaches. The skin on Georgina's thumb cracks in a somewhat painful lesion every cycle around ovulation. But through learning to chart, she was able to at least identify what caused it. And Emma develops such a heightened sense of smell around ovulation that, as she describes it, if her chef-husband cooks something in their house during her fertile phase, she can smell it for days after, and no amount of open windows relieves her nausea. Likewise, if she eats potato chips, or anything with mustard on it, even though she practically sterilizes her hands afterward, she can still smell the residual effect! But if she is outside her fertile phase, she can whip up an onion-garlic casserole, and she's not the least bit affected by it.

When women learn that all this is happening inside their bodies on a regular basis, they are often amazed. And to think that all they were taught about their menstrual cycles in the fifth grade was whether to opt for tampons or sanitary napkins during their periods!

How to Observe and Chart Your Fertility Signs

When women first hear about observing fertility signs, their reaction is typically:

“You’ve got to be kidding me. Too much bother.”

“There’s no way. Take my temperature every day?”

“What a hassle. Who’d do it?”

I, too, had a similar response when I first heard about charting cycles 34 years ago. But once I learned how simple it really was, I was chagrined. Today, I have a different attitude. Quite simply:

Charting is a privilege, not a burden.

How could I have been so oblivious about such a fundamental aspect of my body before I learned to be so aware? A cynic might question the time involved in checking every day. But I think many would agree that it’s infinitely more appealing to take one’s temperature in the morning before getting up than to stop lovemaking to insert a diaphragm or cervical cap, or to contend with the numerous side effects and inconveniences of other methods. And for those frustrated in their desire to get pregnant, the time involved is minuscule compared to the inevitable office visits and procedures for those not educated in FAM.

To show how simple charting really is, let me make an analogy. If someone were to ask you to describe how to tie your shoelaces, you might begin:

Let's see. Well, you take your right shoelace, and place it over the left one. Then take the left shoelace and twist it under the right, pulling both shoelaces away from each other to form a twisted knot. Then make a loop with the right shoelace, which was originally the left. Take the left shoelace and . . .

I'm exhausted just trying to write the rest of the directions. If you had to learn something as simple as tying your shoes through following directions, you'd probably never get it right. Observing and charting your fertility signs is really no different. Once you learn the basic principles, it becomes second nature. When reading this chapter on how to observe and chart fertility signs, refer to the sample [Birth Control Chart](#) and [Pregnancy Chart](#) in the color insert. Trust me. It's not as involved as it initially appears.

Two versions of blank master charts are printed on the last pages of the book: one designed specifically for birth control, and the other for pregnancy achievement. You can copy and enlarge them by 125%, or better yet, download them at tcoyf.com.

FERTILITY AWARENESS APPS

The Internet is flooded with dozens of beautifully designed apps to monitor a woman's menstrual cycle. But beware! Most of them are nothing more than a high-tech version of the ineffective Rhythm Method. So if it predicts when you will be fertile based on only the first day of your last menstrual period, simply delete it!

In order to judge whether an app is reliable, at a minimum, it should allow you to input your cervical fluid and basal body temps and, ideally, other secondary fertility signs as well, such as ovulatory pain. Remember, apps that only use temps cannot indicate when ovulation is about to occur, but only confirm that ovulation has already happened. To know on a daily basis whether or not you are fertile, you need to observe and record your cervical fluid, which is

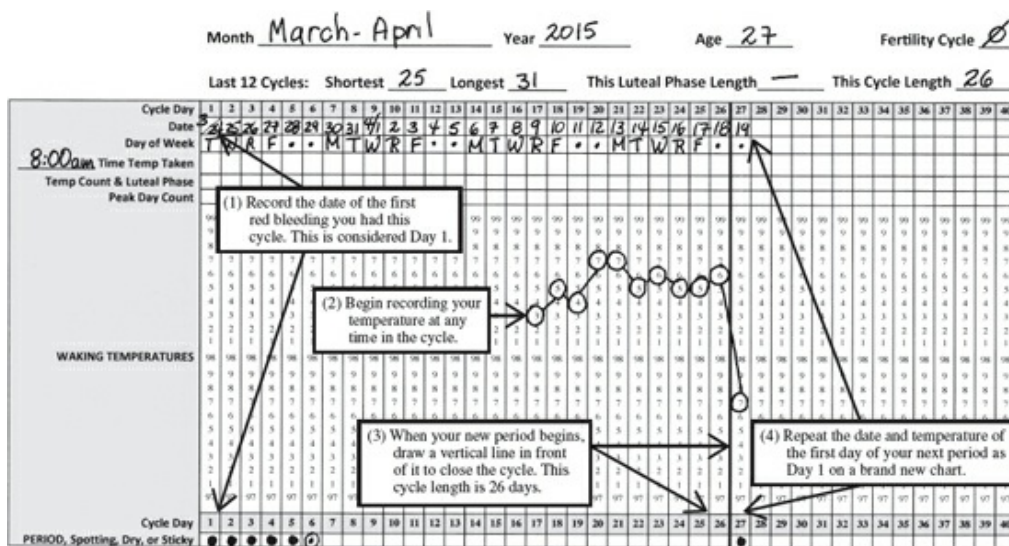
crucial for both pregnancy avoiders and pregnancy achievers.

Regardless, an app alone can't possibly provide you with the class instruction and personal counseling that is often necessary to be able to understand how to rely on your primary fertility signs. Apps should be used only as a convenient way to have your charts always with you, or to share them with a clinician or others. However, they are certainly not a replacement for proper education about your body, fertility, and cycles. In fact, and to be clear, *apps should never be exclusively relied upon to interpret FAM for contraceptive purposes.*

The app that accompanies this book can be found at tcoyf.com.

The First Day of Charting

Although it may be easier to wait until the first day of your next period in order to start charting, you can begin on any day, provided it reflects accurately how long it has been since the first day of your last period. (See Emily's chart below.) Just remember that you should close your chart by drawing a vertical line between the last day of your partially completed cycle and the first day of your new period. You will then be ready to begin charting your first complete cycle on Day 1 of a new chart.



Emily's chart. Beginning to chart in midcycle. Note how Emily didn't start observing her fertility

signs until April 9, which was midcycle for her. So she first filled out the Date column, starting with the first day of her last period. This allowed her to start charting in the middle of her cycle, on Day 17, rather than waiting for Day 1 of a new cycle. As soon as she got her period on April 19, she took out a fresh sheet and repeated that one day, April 19, on her new chart. This cycle was 26 days.

Note that while the sample Sample Natural Birth Control and Sample Pregnancy charts below allow you to record much more information than the chart above, the only parts of those charts that are necessary for practicing FAM are above the row marking the fertile phase in magenta.

WHEN TO START CHARTING FOLLOWING SPECIAL CIRCUMSTANCES

Coming Off the Pill or Other Hormonal Methods

There is no way to predict how long it will take for your cycles to return to their former patterns before you were on hormones. Some women ovulate within a couple of weeks, while others take several months or longer. Ideally, you should begin charting on the first day of the withdrawal bleeding you typically experience during your week off the pill, recording Day 1 as the first day of that bleeding. If you'd prefer to start sooner, follow the directions on the chart above for beginning midcycle. At the end of this chapter you'll find more information about coming off the pill and other hormones.

Irregular Cycles

Unless you've been recording at least your period on a calendar, it can be challenging to begin charting cycles that vary a lot from month to month. Assuming you have been, follow the directions above. But if you haven't, just start recording your observations on Day 1 of the chart, acknowledging that the cycle day numbers don't reflect the true days of your cycle. Once you menstruate, that will become Day 1 of your first

full cycle.

Miscarriage

The amount of time it takes you to resume cycling following a miscarriage will depend on a number of factors, including how far along you were when you miscarried. If you didn't have any major complications, you might resume ovulating shortly after, with your body perceiving the miscarriage as a period. This means that you could start charting within a few weeks, counting Day 1 as the first day you started bleeding. Of course, you should start charting only when you are emotionally ready.

Childbirth

How quickly you resume ovulating after giving birth will depend on several factors, with the most important being whether or not you breastfeed. If you don't, your cycles may resume very quickly, as soon as a month or so after you give birth. If you do breastfeed, it could take up to a year or more, depending on how frequently you do so. In any case, charting during breastfeeding can be somewhat tricky, so I encourage you to read [Appendexes I and J](#) carefully.

♀ CERVICAL FLUID

Virtually all ovulating women experience an observable pattern of changes in their cervical fluid throughout their cycles. Once they learn to recognize these subtle differences, they realize that interpreting the pattern is really fairly simple and predictable. Basically, after a woman's period and under the influence of rising levels of estrogen, her cervical fluid will start to get progressively wetter as she approaches ovulation, at which point it will dry up until the next cycle. On the days before ovulation, when a woman is extremely fertile, her cervical fluid may even feel wet and humid. You could say it gives a whole new meaning to the expression "feeling hot and steamy."

For those of you who think of yourselves as too squeamish to observe it, all I can say is that once you've checked it a few times, you realize it's really no big deal. And if you are even *considering* having a baby one day, I can assure you that the world of diapers and infant regurgitation is a thousand times more traumatizing than cervical fluid!



"Monica's been on this marvellous self-examination course"...

Copyright © Viv Quillin, "The Opposite Sex."

A QUICK LOOK AT YOUR BASIC INFERTILE PATTERN

Before getting into the details of observing and charting your cervical fluid, you should understand a basic principle: every ovulating woman

has a pattern of dry days or non-wet secretions immediately following menstruation that is unique to her. It is the quality indicative of low levels of estrogen before it rises and changes the cervical fluid to a wetter consistency.

For most women with average cycles, it will probably include at least several days of dry before starting to get wet. Others may immediately produce a type of sticky-quality secretion for days before they start to get wet. Still for others who are clearly not ovulating because they are in a specific phase in their life such as dealing with chronic illness, stress, breastfeeding, or premenopause, they may have weeks or even months on end of the same unchanging-quality cervical fluid.

In each case, that type of non-wet cervical fluid is called the woman's Basic Infertile Pattern (BIP). It is the type of secretion her body produces specifically when her hormone levels are low, indicating that she is not yet near ovulation. Such BIPs may be challenging for both those trying to conceive and those practicing natural birth control. Yet throughout the rest of the book, you'll find useful information on how to deal with them, no matter what your reproductive goals are.

The Point of Change

The key to observing your cervical fluid before ovulation is to be on the lookout for a "Point of Change." In other words, right after your period, you will want to carefully observe the quality of your cervical fluid. After you have determined your Basic Infertile Pattern, or BIP, you should be on the lookout for any change in amount, color, or vaginal sensation. For example, your period may end on Day 4, then you may observe nothing, and it feels dry day after day until Day 10. On that day, you realize that it has started to change and it's now white and sticky and your vaginal lips tend to stick to your underwear. Your Point of Change would be Day 10. The estrogen in your body is now starting to increase, causing you to begin to produce cervical fluid as you prepare to ovulate a few days later.

Observing Your Cervical Fluid

1. Begin checking cervical fluid the first day after menstruation has ended. You can already start observing at the tail end, but avoid using tampons on light days of your period since it can obscure observations. Regardless, it's not healthy to use tampons when you are merely spotting, because you risk leaving some residual pieces of cotton behind when you pull them out, to say nothing of the ouch factor!

2. Focus on vaginal *sensations* as you go about your day. (Does it feel dry, sticky, wet, lubricative? Does it feel like you're sitting in a puddle of eggwhite?) Vaginal sensations are essential in identifying fertility, and are the one part of observing your cervical fluid that doesn't involve physically seeing or touching it.

3. Try to examine your cervical fluid every time you use the bathroom, doing vaginal contractions on the way (see [Kegels!](#) section for how to do Kegel contractions). This will aid the cervical fluid in flowing down to your vaginal opening. Find creative times to do Kegels throughout the day, such as while washing dishes or waiting for an annoying red light to change.

4. Check cervical fluid at least three times a day, including the morning and night. When checking, remember that cervical fluid is on a continuum, from dryer and less-fertile qualities to wetter and more-fertile qualities close to ovulation.

5. Be sure to check when you are not sexually aroused, since sexual lubrication can mask cervical fluid. (In other words, it would be somewhat ineffectual to whisper in your partner's ear after an hour of foreplay, "Let me just check my cervical fluid to see if I'm fertile, babe.")

6. Both before *and* after urinating, while you are sitting there with nothing better to do, take a tissue and fold it flat. Separate your vaginal lips and wipe from front to back, wiping especially across the lower opening of your vagina closest to your perineum, where it tends to collect (see [External Female Reproductive Anatomy](#) if you can't remember where it is!). *Always* wipe from front to back to avoid spreading bacteria.

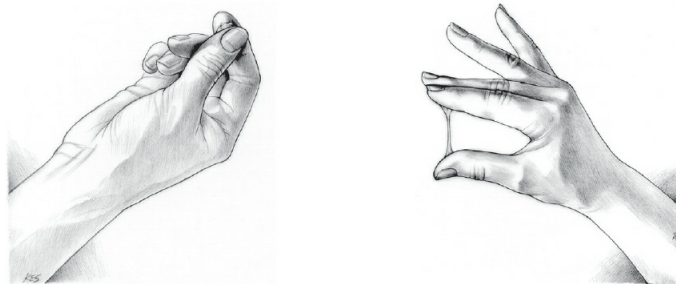
7. Focus on how easily the tissue glides across your vaginal lips and

perineum. Does it feel dry, smooth, or lubricative?

8. Lift the secretion off the tissue to feel it with your thumb and middle finger, glancing away before really observing it. Focus on the quality as you rub your fingers together. Does it feel dry? Sticky? Creamy? Slippery or lubricative (like eggwhite)?



9. Then look at it while slowly opening your fingers to see if it stretches, and if so, how much before it breaks. Is it clear or cloudy? Is it tinged with blood? In other words, focus on its qualities as it changes over the days leading up to ovulation.



10. Check your underwear throughout the day. Remember that very fertile-quality cervical fluid often forms a fairly symmetrical circle, due to its high concentration of water. And even though sweat and urine may also form a similar round shape on your underwear, only the cervical fluid will remain, usually leaving some color, consistency, or texture. Nonwet-quality cervical fluid tends to form more of a rectangle, square, or line on your underwear, as seen in [Cervical Fluid on Underwear](#) section.

But be aware that if you use a panty liner, you won't be able to discern the quality of any of them as easily because of the pattern on it. And if you tend to wear them in between periods, you may want to stop for a few hours

in the middle of the day so that you can observe more easily. Or you may prefer to use dark-colored cotton or organic reusable pads that will allow you to easily observe your cervical fluid.

11. If you find it hard to differentiate between cervical fluid and basic vaginal secretions, remember that cervical fluid won't dissolve in water. So a little trick that can help you initially learn to tell the difference is the water test. Take the sample between two fingers and dip it into a glass of water. If it's true cervical fluid, it will usually form a blob that sinks to the bottom or simply remains a distinct secretion. If it's basic vaginal secretions, it will just dissolve.

12. Note the quality and quantity of the cervical fluid (in other words, color, opacity, consistency, thickness, stretchiness, and most important of all, slipperiness and lubricative quality).

13. The most obvious time when fertile cervical fluid will flow out is after bearing down while using the toilet. Of course, to prevent infections while checking, you should first use a separate tissue for wiping your vaginal opening from front to back.

14. Around your most fertile time, look in the water while you use the toilet. You would be surprised at how stretchy cervical fluid can flow out so quickly that you could miss it if not paying attention. In addition, it's interesting to see how it often forms a ball when it hits the water, appearing like a cloudy marble sinking to the bottom. Ironically, if that happens, you may feel dry the rest of the day because it slides out so fast. So around ovulation, pay close attention when you're using the bathroom.

15. Other good times to observe cervical fluid are after exercising or doing Kegels.

16. Be aware that as you get closer to ovulation, your cervical fluid may become so thin that it may be hard to finger test, but very fertile-quality cervical fluid will usually make your vaginal sensation feel lubricative, both while walking around during the day and when wiping with tissue after going to the bathroom.

17. Learn to tell the difference between semen and fertile-quality cervical fluid. Semen sometimes appears as a rubbery whitish strand or slippery foam.

It tends to be thinner, breaks easily, and dries on your fingers quicker. By contrast, eggwhite tends to be clear, shimmering, and often stretchy. Since the two are similar, though, it's imperative that you mark any ambiguity with a question mark in the Cervical Fluid row. Doing Kegels to eliminate semen after sex should minimize any potential confusion.

KEGELS!

Kegel exercises strengthen the vaginal muscles, which are usually referred to as pubococcygeus muscles or, thankfully, just PC muscles. Strengthening them serves many useful purposes, including aiding in:

- increasing sexual pleasure
- pushing cervical fluid down to the vaginal opening
- pushing semen out of the vagina (see SETs, below)
- restoring vaginal muscle tone following childbirth
- maintaining urinary continence in older women

How to Identify the PC Muscles

Sit on a toilet and stop and start the flow of urine without moving your legs. Your PC muscles are what turn the flow on and off.

The Exercises

When you are first learning to chart, you may want to do Kegel exercises at set times to get used to strengthening your vaginal muscles. But soon it will become such a habit that you'll find yourself doing them throughout the day without even thinking about it.

Slow Kegels: Tighten the PC muscles as if you were stopping the flow of urine. Hold it for a slow count of three. Rinse and repeat. No, wait—wrong instructions. *Relax* and repeat.

Fast Kegels: Tighten and relax the PC muscles as rapidly as you can. Repeat.

When to Do Kegels

You can do Kegels any time during your daily activities. Be creative and find times throughout the day, such as while driving your car, watching television, or wasting time on Facebook.

What You May Initially Experience When You Start Doing Kegels

When you first start practicing Kegels, you will probably notice that the muscles don't want to stay contracted during the slow exercises and that you can't do the quick ones as fast or evenly as you'd like. In addition, sometimes the muscles will start to feel a little tired, which is not surprising. You probably haven't used them much before. Take a few seconds and start again. In a week or two you will probably notice that you can control them quite well.

A good way to check how you are doing is to insert one or two fingers into your vagina and feel if you are able to tighten your PC muscles around your finger.

Semen Emitting Technique (SETs)

In order to determine daily fertility without confusing semen (or spermicide) with fertile cervical fluid, you should eliminate the semen as soon as possible. The first time you urinate following intercourse, push out as much of it as you can, absorbing the rest with tissue. The next couple of times, stop and start the flow with Kegels, wiping away the semen after each contraction. You will usually be able to get rid of it by the time you are through urinating. (Those who want to get pregnant should wait at least half an hour after intercourse to assure enough time for the sperm to swim up through the cervical fluid before doing SETs.)



“Between Friends” reprinted with special permission of King Features Syndicate

Charting Your Cervical Fluid

1. Day 1 of the cycle is the first day of red menstrual bleeding. If you have brown or light spotting in the day or two before the flow, it is considered part of the previous cycle.

2. The graphic below shows how the various types of cervical fluid are recorded on your chart. Note that menses is marked by ●, while spotting is marked by a smaller ⊙ to show that the latter is much less blood. For clarity, both should be marked in the Period, Spotting, Dry, or Sticky row.

Menses: Red blood flow.

Cycle Day	1	2	3	4	5	6	7	8	9
Eggwhite									
Creamy									
PERIOD, Spotting, Dry, or Sticky	●	●	●	●					

Spotting: Brown, pink, or discolored.

					↓				
Cycle Day	1	2	3	4	5	6	7	8	9
Eggwhite									
Creamy									
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	⊙				

Nothing: Dry. No cervical fluid present. May feel dampness on tissue that quickly dissipates after you check your vaginal opening.

						↓			
Cycle Day	1	2	3	4	5	6	7	8	9
Eggwhite									
Creamy									
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	⊙	—			

Sticky: Opaque, white, or yellow. Can be fairly thick. Critical quality is its stickiness or lack of true wetness. May be crumbly or flaky like paste, or gummy and rubbery like rubber cement. May form small peaks when you separate your fingers.

							↓		
Cycle Day	1	2	3	4	5	6	7	8	9
Eggwhite									
Creamy									
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	⊙	—	■		

Creamy: Milky or cloudy, white or yellow. Creamy or lotiony. Wet, watery, or thin. When separating fingers, doesn't form peaks, but remains smooth like hand lotion.

								↓	
Cycle Day	1	2	3	4	5	6	7	8	9
Eggwhite									
Creamy									
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	⊙	—	■	■	

Eggwhite: Usually clear but can have opaque streaks in it. Very slippery and wet, like raw eggwhite. Often causes extremely lubricative feeling at vaginal opening. May stretch several inches. (Surprisingly, you may experience a completely dry sensation after it slides out.)

									↓
Cycle Day	1	2	3	4	5	6	7	8	9
Eggwhite									
Creamy									
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	⊙	—	■	■	■

3. Record the most *fertile*- or *wet*-quality cervical fluid of the day, even if you are dry all day except for one single observation. Obviously, any spotting should also be recorded. Your Cervical Fluid row may appear similar to [Abigail's chart](#). (If you have spotting inside your cervical fluid, you can make a small dot in the appropriate square.)

that the Peak Day is not necessarily the day of the greatest *quantity* of cervical fluid. In fact, the “longest eggwhite stretch” or greatest amount could occur a day or two before, as seen in [Julia’s chart](#).

1. Your Peak Day is the *last* day of either:

- eggwhite, or
- lubricative vaginal sensation

This means that if your last day of eggwhite is on a Monday, but you still have one more day of lubricative vaginal *sensation* (or spotting) on Tuesday, your Peak Day is Tuesday. Your Peak Day is always determined in retrospect the following day.

2. If you don’t have eggwhite, you would count the last day of the wettest-quality cervical fluid you do have, which may be creamy or smooth, for example. (Of course, once again, if your last day of creamy is on a Monday, but your last day of wet vaginal sensation is on a Tuesday, your Peak Day would be Tuesday.)

3. Some women will occasionally have a day or two of some other type of cervical fluid after their last day of eggwhite. The Peak Day is still the last day of eggwhite or lubricative vaginal sensation.

4. One of the hallmarks of the Peak Day, and what makes it fairly easy to identify, is the abrupt and dramatic drying following it, caused by the beginning of the rise in progesterone.

5. Once you have identified the Peak Day, you should write “PK” in the Peak Day row of your chart. The charts below show the most common cervical fluid patterns and how their corresponding Peak Days would be recorded.

ANOVULATORY CYCLES AND THE PEAK DAY

One of the reasons I encourage you to chart both your cervical fluid and temps is that if you observe only your cervical fluid, you could be misled and believe that you are ovulating when you are not. This is because your body may make attempts to ovulate by increasing its levels

Ariana's chart. A cervical fluid pattern in which a day of creamy follows the last day of slippery eggwhite. In this case, Ariana's Peak Day was still considered Day 11, the last eggwhite day. Also note that because she ovulated early, this cycle is short, which is not surprising, because she didn't have any dry days immediately following her period.

Knowing how to accurately determine your Peak Day is crucial if you are to correctly follow the rules for both birth control and getting pregnant, so be sure to carefully internalize the guidelines and the sample charts above.

✿ WAKING TEMPERATURE

The first time I heard that FAM involved taking a temperature every day, I thought, “You can’t be serious!” But 11,000 temps later, I lost sight of what the big deal was. In fact, it’s nice to have an excuse to snuggle a minute, warm and cuddly—rather than feeling the need to bolt out of bed the second the alarm goes off.

Now, granted, in order to get an accurate reading, you probably don’t want to do 50 sit-ups before taking it. Nor, for that matter, should you jump up to grab your smartphone in the other room or even get up to urinate right after waking up, even if you downed two pints of lemonade the night before.

But on the positive side, taking your temps will provide you with a wealth of information about your body that, when all is said and done, will probably take about a minute of your day. To fully appreciate what I am saying, let me list the benefits of taking your temperature every morning. You will be able to identify:

- if you are ovulating
- when it would be safe to have wonderfully natural intercourse without risk of an unplanned pregnancy
- when you are *no longer* fertile, if you want to avoid a pregnancy, or when you are still fertile if you want to achieve one
- when you will get your period
- if there are potential problems in your cycle

Taking Your Temperature

1. Take your temp first thing upon awakening, before any other activity such as drinking, talking on the phone, or getting up to use the bathroom. Ideally, it should be taken throughout the cycle, including during menstruation. (If you prefer, you may restrict temperature taking to about one-third of the cycle, as discussed in [Chapter 12](#) on “Shortcuts.” However, if you are using FAM for birth control, I would strongly discourage you from

using shortcuts until you have charted at least several cycles.)

2. You should take your temps about the same time every morning, give or take about an hour. However, you don't need to be a slave to your thermometer. If you sleep in on the weekends, or for whatever reason take it earlier or later than usual, just be sure to note the time on your chart, because for some women, basal temps tend to creep up the later you take them. Still, many women find that if they get up to use the bathroom and take their temps while going, it doesn't affect them. Or, if they immediately go back to bed, it won't affect their temps if taken shortly after. (For how to handle the outlying temperature that may result, see the [Rule of Thumb](#).)

3. If using a digital thermometer, wait until it beeps, usually about a minute. If using a glass basal body thermometer, leave it in for five minutes, but shake it down the day before so that you won't risk raising your temps.

4. Take your temperature orally. If you find that you don't get a clear pattern, you may want to take it vaginally. Either way, just be aware that it's important to be consistent and always take it the same way throughout the cycle because vaginal temps tend to be higher than oral temps.

5. Regardless, if using a digital thermometer and you still don't get a clear thermal shift, you can try leaving it in for an extra minute or two, so long as you do so consistently.

HOW SENSITIVE IS YOUR BODY TO WHEN YOU TAKE YOUR TEMPS?

Some women can sleepwalk in the snow an hour before taking their temps, and it wouldn't make a difference. Others are so sensitive to the slightest variation that just being woken by a car alarm a couple hours before getting up could disturb their temperature reading. Fortunately for most women, none of these variations will make much difference.

Even for those of you who are more sensitive, you're still likely to go to bed and wake up about the same time every morning, even if you don't actually get out of bed at the same time. Of course, sometimes life gets in the way. For example, you may normally get at least three

consecutive hours of sleep before taking your temp, but sometimes you have to pee so bad that you go first, or go back to bed and only get an hour of sleep before taking it. Or maybe you have a couple glasses of wine now and then the night before. In the end, if your temps seem all over the map, you might want to try an experiment.

Record in one color the temps you take about the same time after about the same amount of sleep. But any time that you experience something different, record the aberration in another color, always noting the anomaly in the Miscellaneous row (e.g., wine last night, awoken by phone) or the Time Temp Taken row (5:30 a.m., instead of the usual 7 a.m.).

If you notice a conspicuous difference, try to maintain as much consistency as possible, including recording your temp about the same time and getting at least three consecutive hours of sleep before doing so. And of course, don't rely on any confusing cycles until you have established normal temperature charts. In the end, you'll always have the handy [Rule of Thumb](#) to help you accurately interpret your charts.

Charting Your Temperature

1. You can record your temps at any time that day, but it's usually more interesting to do so in the morning so that you can get immediate feedback about what's happening in your body. If this isn't practical, it doesn't need to be done until the evening, since most digital and glass thermometers will remain accurate until read or shaken down. (Just be sure not to leave your thermometer roasting on a hot windowsill all day.)

2. If the temperature falls between two numbers on a glass thermometer, always record the lowest temp.

3. Record and connect the temps with a pen.

4. Unusual events such as stress, illness, travel, or moving should be recorded in the Notes row of the chart and taken into consideration when interpreting the temperature pattern. And temps taken earlier or later than usual should be noted in the Time Temp Taken row.

5. If your temps seem confusing or erratic, try taking them vaginally for at least a full cycle from period to period. You may be someone for whom vaginal temps are more accurate.

6. If you think a temperature is outside the normal range, apply the Rule of Thumb and wait until the next day to draw the connecting line. Omit any aberrant temps by drawing a dotted line between the normal temps. Record possible reasons for their aberrations (see [Catherine's chart](#)).

A GUIDE TO THERMOMETERS

Digital Thermometers

For most women, the most convenient type of thermometer is a digital one. It usually requires only about a minute to register and typically beeps when it's done. For charting purposes, it should have memory capable of storing the last temperature until you retrieve it at the time you record. Also, it's imperative that it be accurate to within 1/10th degree Fahrenheit (for example, 97.4), but do not use thermometers that measure to within 1/100th of a degree (for example, 97.47), since the extra information is unnecessary and confusing. And be attentive to when you need to change the battery.

You can rely on digital thermometers as long as they clearly show the midcycle thermal shift that signals the passing of ovulation. But if your temps seem confusing, if they do not show a clear pattern of pre- and postovulatory lows and highs, or do not correlate closely with your other fertility signs, try a different digital or switch to a glass basal body thermometer at the beginning of a new cycle.

You should also be aware that there are several new digital thermometers that are specifically designed to sync with mobile apps, including one for the app that goes with this book. See tcoyf.com.

Glass Basal Body Thermometers

Glass thermometers are considered the most reliable thermometer for detecting your basal body temperature (BBT). However, they are rarely sold anymore, and do require a full five minutes to register an accurate reading. The thermometer packaging should specify that it's a "basal

body” thermometer as opposed to a “fever thermometer.” A glass basal body thermometer is easier to read than a glass fever type because the temps are shown in increments of 1/10th rather than 2/10ths degrees F. But BBT thermometers only register up to 100 degrees F., so if you have reason to think you are developing a fever, be sure to use a fever thermometer during those days.

Ear or Forehead Thermometers

Alas, these types of thermometers are still not considered reliable enough to be used for Fertility Awareness charting.

Drawing the Coverline

Ultimately, the reason you chart your temps is to determine when you ovulated in any given cycle. Remember that after ovulation, temps quickly rise above the range of lows that preceded it, forming a biphasic pattern on the chart. This thermal shift is often so obvious that you’ll be able to spot it simply by glancing at the chart. However, in order to interpret accurately, you’ll want to draw a coverline to help you differentiate between temps that are low (preovulatory) and high (postovulatory). Your evolving, wetter cervical fluid will be your sign to start paying attention to your temps, because it’s the first indication that you are getting closer to ovulation. The coverline is drawn as follows:*

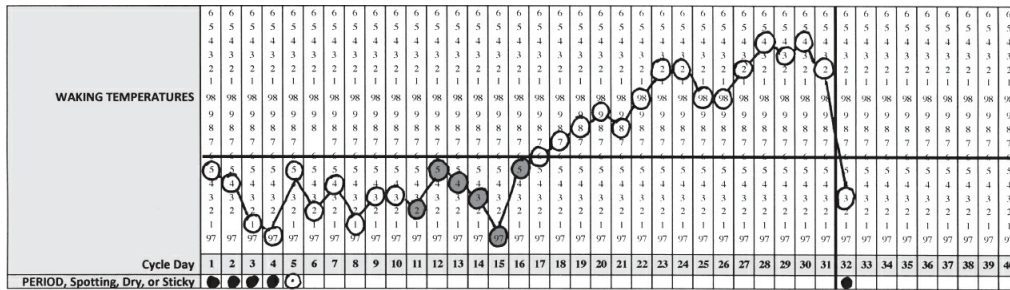
1. After your period ends and once you start noticing wet cervical fluid, begin watching for a temp that is higher than the cluster of six preceding temps.
2. Identify the first day your temps rise at least two-tenths of a degree above the *highest* in the cluster of the preceding six temps.
3. Look back and highlight the last six temps before the rise.
4. Draw the coverline one-tenth above the *highest* of that cluster of 6 highlighted days preceding the rise as seen in Kate’s chart below. (It’s not unusual to have high temps during menses due to the residual effects of progesterone lingering from the last

covering her outlying temperature on Day 13 and that she drew a dotted line between the days on both sides of it. Also notice that Day 13 is not counted among the necessary 6 days to draw the coverline. This cycle length was 28 days.

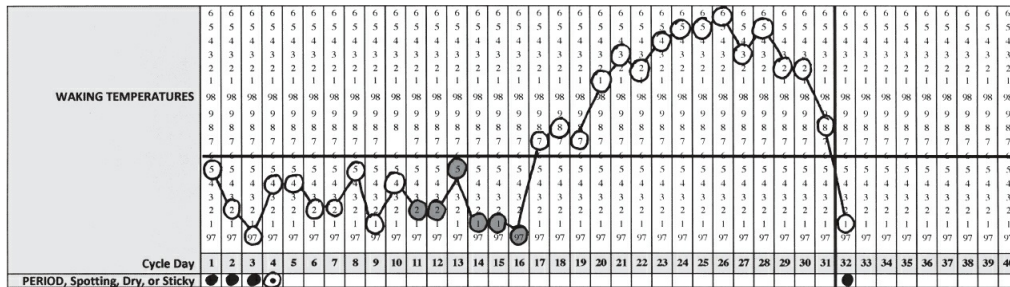
Types of Thermal Shift Patterns

Catherine’s chart above shows a coverline drawn with a *standard* thermal shift pattern. The standard pattern clearly shows the range of low temps, followed by a distinct thermal shift of at least two-tenths of a degree, followed by a consistent range of high temps that remain until the end of that cycle. Standard patterns are the easiest to interpret, and thus drawing the coverline for them is a breeze.

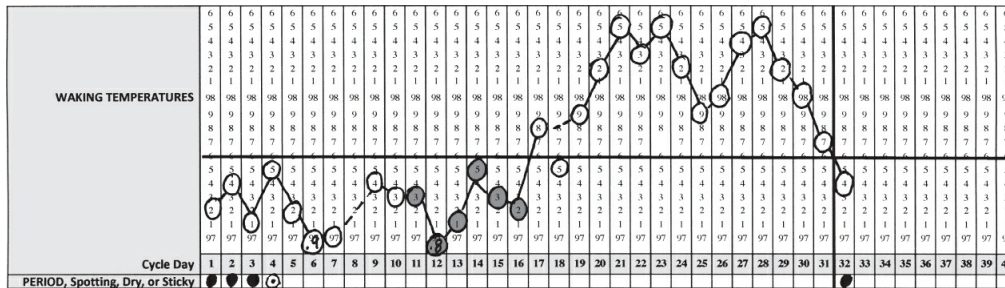
Most women tend to experience the same type of thermal shift patterns within their own cycles, although they may see variation now and then. While the standard shift is the most common, there are three other types that you may experience, all shown below.



Talia’s chart. The slow-rise. Note how her temperature rises 1/10th of a degree at a time, starting with Day 17 as the first temperature higher than the cluster of the six before it. Also notice that with this particular pattern, the coverline cannot be drawn using the standard instruction.



Brooke’s chart. The stair-step rise. Note how her temperature rises in an initial spurt of about 3 days on Day 17 before rising further on Day 20.



Kelly’s chart. The fall-back rise. Note how her temperature initially rises above the coverline on Day 17, but then falls back the next day before rising above again on Day 19.

While the above patterns can be a bit confusing initially, they are easy to interpret once you are familiar with them. [Appendix H](#) give further explanation should you find that you have cycles that resemble them.

CHARTING TEMPS DURING SPECIAL CIRCUMSTANCES

Travel Across Time Zones and Daylight Saving Time

Occasionally, you may experience a change in time zones, either when you travel or because of Daylight Saving Time. If you are someone whose body is sensitive to what time you take your temp, just be aware of the possibility that it may register higher or lower that day, since temps tend to rise later in the day. If you notice an aberration, ignore it by applying the [Rule of Thumb](#). However, if you work for the airlines or have some other job that requires you to constantly travel across times zones, you may not be able to realistically chart your temps effectively, but you still can rely on your other fertility signs. (See [Cervical Fluid Only Rules](#) for how to maximize contraceptive effectiveness in such situations.)

Night-Shift Work

Working the night shift tends to come with many challenges, not the least of which is when to take your basal temperature. But remember, the definition of a basal temperature is the temp first thing upon awakening, which will not be the morning for those who work nights. (Of course, if your night job is really boring and you sleep through it, you’ve probably got bigger issues than when to take your temps.)

The general rule in night-shift situations is to still take your temps

first thing upon awakening, but the difference is that it should be from your longest, most restful sleep. For many of you, that will be late afternoon or evening.

If you work various shifts, you may find it more challenging to see a clear pattern of lows and highs. Depending on your work schedule, you may still be able to identify a clear thermal shift for every cycle, but if you cannot, you may still be able to rely on your other fertility signs discussed in this chapter. (Again, see [Cervical Fluid Only Rules](#) for how to maximize contraceptive efficacy in such situations.)

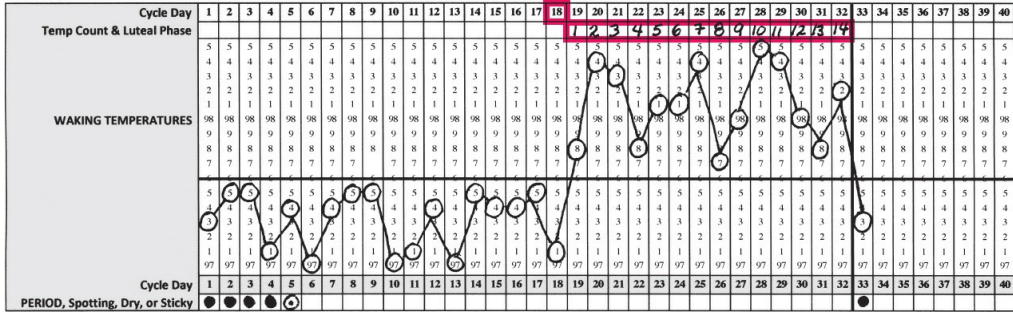
A General Note on Special Circumstances

While most of you will be able to recognize a thermal shift despite these challenges, you will want to be especially attentive to your cervical fluid as well as to the optional sign of cervical position in order to clearly identify your fertile phase. And regardless, you should never use your temps for contraceptive purposes unless you can see a clear pattern of postovulatory highs above the coverline. If in doubt, don't rely on FAM for birth control during these times unless you can clearly determine your fertile phase by observing your other signs.

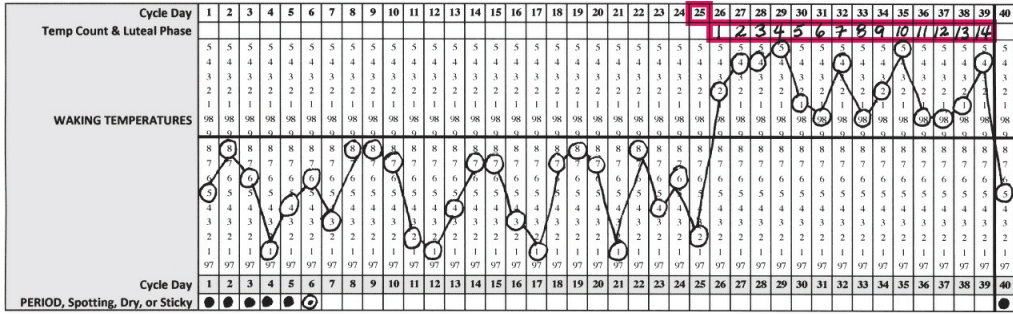
How Temperature Patterns Predict Length of Cycles

The beauty of charting temps is that it can give you a sneak preview of how long your cycle will be simply by observing when you have a thermal shift. Remember that once your temps rise, the length of time until your next period will remain pretty consistent from cycle to cycle. So, for example, if you have a fever or a lot of stress during the first part of your cycle, you may experience a delayed ovulation that will be reflected in a late thermal shift. In such a case, you will still be able to count ahead to determine when you will menstruate, even though it will be later than usual.

Cassandra and Everett were young engaged clients of mine. They both attended college but still lived at home to save money for their



39-day cycle



Clara's charts. Temperature charts showing one woman's cycles of 25, 32, and 39 days. Note that Clara's preovulatory phase varies in length, but her postovulatory (luteal) phase remains consistent, usually about 14 days.

✿ CERVICAL POSITION (OPTIONAL SIGN)

The most challenging fertility sign for most women to master is the cervical position. Of course, it makes sense—after all, how often do you typically slide your finger in your vagina to feel what greets you several inches within? So it may take a few cycles to be able to tell the differences in the cervical qualities of softness, height, and opening.

As you approach ovulation, your cervix tends to rise, soften, and open. It progresses from feeling firm like the tip of your nose (when not fertile) to feeling soft like your lips as you approach ovulation. Your cervix will lower abruptly when estrogen levels fall and progesterone becomes dominant after ovulation. By simply inserting your clean middle finger, you can detect these subtle changes.

The cervical position is an optional sign, but it is especially helpful if either of the other primary signs are confusing in any particular cycle. It should never be relied upon alone. The best time to observe dramatic changes are right around ovulation, when the position of the cervix shifts most abruptly.

Even women who want to chart their cervical position might be initially squeamish about checking it. This is understandable, since it's probably not something they are accustomed to feeling. Simply breathe slowly and let your body relax. Eventually, you'll probably find that it can be fascinating to observe how your cervix varies throughout the cycle. And once you become familiar with the various changes, you may want to check your cervix just a week or so per cycle, as discussed in [Chapter 12](#).

I would encourage you to check your cervix if:

1. Your temperature patterns do not reflect a completely obvious thermal shift. Your cervix in such cases would provide corroborating evidence of your fertility.
2. Your cervical fluid observations or temperature readings are not easy to interpret.
3. You absolutely cannot risk an unplanned pregnancy and want a *third* sign to confirm infertile days.

Observing Your Cervix

When first learning how to check your cervix, one trick that may help give you a baseline is to check for the first time only *after* ovulation, when your cervix is at its lowest, since it's easiest to reach then. During the luteal phase, it will usually feel firm, low, and closed. Once you have a point of reference for what it feels like:

1. Begin checking your cervix at least once a day after menstruation has ended.

2. Make sure your fingernails are trimmed, and always wash your hands with soap first.

3. Try to check at about the same time each day. Just after a morning or evening shower is probably the most convenient time. But do not check immediately after a bowel movement because you obviously risk introducing bacteria, and it could cause the cervix to open. And don't check it the very first thing in the morning because it may be temporarily harder to reach.

4. The most effective position in which to check is squatting, since this pushes the cervix closest to the vaginal opening. However, some women prefer to check while sitting on the toilet, or putting one leg on the bathtub. Just be consistent about the position you choose, since different positions will change the cervical height.

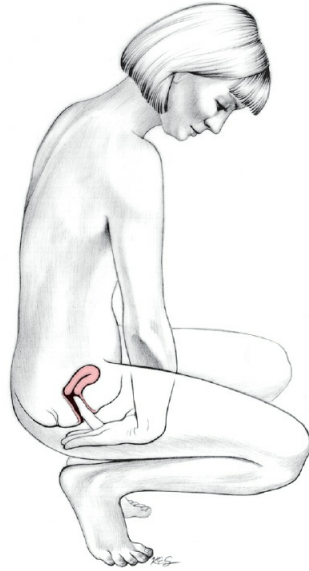
5. Use your finger as a convenient gauge. Insert your middle finger and remember the mnemonic **SHOW** as you observe the following conditions of the cervix:

Softness (firm/soft)

Height in the vagina (low/high)

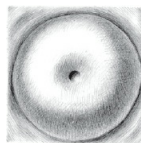
Opening (closed/open)

Wetness (nothing/sticky/creamy/eggwhite)

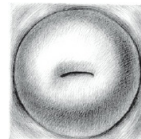


Technically, wetness is a quality of the cervical *fluid* and not of the cervix, but it's included here because, when checking the cervix, you can't help but notice whatever secretion is on your finger when you remove it. Just be aware that there will always be something there, and with practice, you will probably start noticing variations depending on where you are in your cycle. (Regardless, though, what you observe when you pull your finger out must not be your main way of checking cervical fluid!)

6. Note that women who have vaginally delivered children will always have a slightly open cervix. It will feel more oval and is usually shaped like a horizontal grin, so it's important to focus on the subtle variations throughout the cycle.



Woman who has never vaginally delivered children



Woman who has vaginally delivered children

7. The best time to begin observing cervical changes is when the wet-quality cervical fluid starts to build up in the days before ovulation. You

Isabella's chart. A typical cervical position pattern. Note that Isabella's cervix takes a few days to soften, rise, and open, but then immediately closes and drops between Days 20 and 21. This is due to the strong effects of progesterone after ovulation, which in this cycle, probably occurred about Day 20.

HOW TO DETERMINE THE LENGTH OF YOUR LUTEAL PHASE

Technically, the luteal phase is defined as the time from ovulation until your next period. The only way that you would be able to know how long it truly lasts is if you happened to have an ultrasound machine in your bedroom to check every day. Short of that, you can still get a good idea of its length by counting from the first day of your thermal shift through to your period, not including the first day of menses itself. To be clear, you count through to the last day before your true period, even if your temps drop a day or more before, and even if you have premenstrual spotting in the days before.

Luteal phases are typically about 12 to 16 days. If it's fewer than 10 days, it's generally considered too short. Likewise, you could theoretically have a luteal phase of normal length but still produce an insufficient amount of progesterone. Either situation may be a problem if you are trying to get pregnant, because both can result in your uterine lining shedding before a fertilized egg has a chance to implant.

There is one situation in which you might want to modify the way you count the length of your luteal phase: If your thermal shift consistently occurs more than two days after the Peak Day, it probably means that your body reacts slowly to the heat-inducing progesterone released after ovulation. In such a case, it may be more accurate to count the day after the Peak as the first day of the luteal phase rather than waiting to start counting after your thermal shift (see [Fewer Than 10 Days of High Temperatures Above the Coverline](#) section).

SOME CHARTING LOGISTICS WHEN RECORDING BY HAND

Download the appropriate master chart (for birth control or pregnancy)

from www.tcoyf.com. or copy them from the back of the book and enlarge by 125%.

Record almost everything except temps in fine-point pencil.

To record cervical fluid or color-coded signs, use a thick marker to fill in the narrow boxes. Have fun exploring a good office supply store with a sample chart in hand to find the best thickness, style, and colors to meet your needs.

Put a question mark in the column anytime you forgot to observe signs. If your temps fall below 97, write the correct temp just below it and circle that number (so, if your temp was 96.9, record 9 just below the 97, and circle it). Likewise, if your temps rise above 99, write the correct temp just above it and circle that number (so, if your temp was 99.3, record 3 just above the 99, and circle the 3). You can also download a master chart with temps below 97 at tcoyf.com

If your preovulatory temps tend to be consistently in the 96s or very low 97s, download a master chart with temps below 97 at tcoyf.com.

If your cycle extends beyond Day 40, cut and tape your charts together (I know, I know, so very yesterday) so that they look like one continuous, long cycle.

Keep your charts in a notebook with the most recent on top, for easy recording.

Copy the [Annual Physical Exam](#) master form on onto the back of the chart for the cycle in which you get your exam. To easily access your annual exams in the future, you may want to use a little metal clip in the top right corner.

If you are scanning or faxing your charts to your health practitioner, be sure to put your name on the charts, and send them at high resolution.

If you would prefer to download a digital master chart or chart your cycles on an app, visit tcoyf.com.

COMING OFF THE PILL OR OTHER ARTIFICIAL HORMONES

(INCLUDING ORTHO EVRA PATCH, NUVARING VAGINAL INSERT, IMPLANON ROD IMPLANT, DEPO-PROVERA INJECTION, OR PROGESTIN IUD)

Women who discontinue hormones are often surprised that their cycles don't necessarily resume in the manner that they had become accustomed to while on them, especially with the clockwork nature of the pill. But remember that cycles on hormones are artificially induced to be perfect. And ovulation doesn't necessarily resume immediately after discontinuing them, usually because of the oversuppression of the feedback mechanism of the hypothalamus and pituitary gland.

Generally speaking, putting women on the pill to "regulate cycles" is counterproductive. So, if you are prescribed the pill for any number of conditions causing irregular cycles, such as PCOS, endometriosis, ovarian cysts, or primary ovarian insufficiency, it usually only masks rather than treats the underlying cause. And once you go off it, your cycles will return to what they were like beforehand.

In addition, the pill can cause any of the following disruptions for up to several months after discontinuing:

Temps

- false high temps
- temps that seems completely out of sync with cervical fluid

Cervical Fluid

- absence of typical ovulatory cervical fluid, leading to an unchanging Basic Infertile Pattern (BIP) even when ovulation does occur
- continuous seemingly fertile watery or milky cervical fluid
- erratic patches of varying types of cervical fluid

Luteal Phase

- short luteal phase indicating an unsuitable ovulation

Bleeding

- heavier and redder bleeding than you became accustomed to while on the pill
- irregular preovulatory bleeding and spotting in the luteal phase
- poor menstrual flow following ovulation

When a woman comes off the pill or other hormones, her cycles will usually revert to the way they were before. However, the length of time it takes varies among women. For some, it's almost immediate. But for most, there is at least a short delay of a few months, and for others, it could take many months to years (Depo-Provera in particular may delay the return of normal cycles for up to a year or two). This variation is a function of the type and dosage of hormones used, the basic physiology of the woman, and of course, as mentioned above, any underlying conditions that she had before taking it.

Those who tend to take longer to clear the drug from their systems, and therefore take several months to resume cycling after hormones, are often young or thin (especially those who lost weight while on hormones). Those who were irregular before hormones typically return to their irregular pattern after. In addition, you should be aware that once women do resume natural cycling, they may experience short luteal phases for the first few months. This will usually be reflected in high temps of fewer than 10 days, after the thermal shift.

Once women discontinue hormones, but before their cycles start showing the classic buildup of fertile-quality cervical fluid, they may notice that it has a somewhat milky quality. Some experience a type that is a combination of both sticky and wet. Still others may discover that their cervical fluid doesn't attain classic fertile qualities, because the pill can damage the cervical crypts that produce it. For most women though, such abnormalities in their fertility signs will gradually disappear, and they can anticipate returning to cycles similar to what they experienced before starting it.

It's clear that when coming off the pill, your observations of your

cervical fluid might initially be confusing. And I want to remind you again that any woman who is just starting to chart—or just starting to chart again after being on hormonal contraceptives—should not rely on FAM as their sole method of birth control until they feel confident in being able to interpret their fertility signs.

For those of you who want to get pregnant after stopping the pill, I would encourage you to wait a few months to be sure the residual hormones are out of your body. Or certainly ask your doctor what they recommend based on the type and dosage you were on.

✿ PUTTING IT ALL TOGETHER: A SUMMARY

The time it takes to actually check all three signs is negligible compared to the advantages to be gained. The following, then, is a summary of how to observe and chart the three fertility signs. You might want to bookmark this section for quick reference.

Observing Your Cervical Fluid

1. Begin checking cervical fluid the first day after menstruation has ended.
2. Focus on vaginal *sensations* throughout the day (such as dry, sticky, wet, or lubricative).
3. Try to examine your cervical fluid every time you use the toilet, doing Kegels on the way.
4. Check cervical fluid at least three times a day.
5. Be sure to check when you are not sexually aroused.
6. Both before and after using the toilet, take a tissue and fold it flat. Separate your vaginal lips and wipe from front to back.
7. Focus on how easily the tissue glides across your vaginal lips. Does it feel dry, smooth, or lubricative?
8. Now lift the secretion off the tissue to feel it with your thumb and middle finger. Focus on the quality. Again, does it feel dry? Sticky? Creamy? Lubricative like eggwhite?
9. Look at it while slowly opening your fingers to see if it stretches.
10. Check your underwear throughout the day. Notice if you see a fairly symmetrical wet circle.
11. To differentiate between cervical fluid and basic vaginal secretions, try the glass of water test: true cervical fluid usually forms a blob and sinks to the bottom or remains distinct in the water.
12. Note the quality and quantity of the cervical fluid (color, opacity, consistency, thickness, stretchiness, and most

A typical cervical fluid pattern.

Identifying Your Peak Day

1. Your Peak Day is the *last* day of either:
 - Eggwhite
 - Lubricative vaginal sensation
2. If you don't have eggwhite, you would count the last day of the wettest-quality cervical fluid you do have.
3. The Peak Day is the last day of eggwhite or lubricative vaginal sensation, even if you have an additional day or two of creamy cervical fluid after.
4. The Peak Day is fairly easy to identify because the cervical fluid tends to dry up very quickly.
5. Once you have identified the Peak Day, be sure to write "PK" in the Peak Day row of your chart.

Taking Your Temperature

1. Take your temps first thing upon awakening.
2. You should take them about the same time every morning, give or take about an hour.
3. If using a digital thermometer, wait until it beeps, usually about a minute. If using a glass basal body thermometer, leave it in for five minutes.
4. Take your temps orally. (If you find that you don't get a clear pattern, you may want to switch to taking it vaginally—just be consistent!)
5. If using a digital thermometer in which you still don't see a clear thermal shift, try consistently leaving it in for a minute or two beyond the beep.

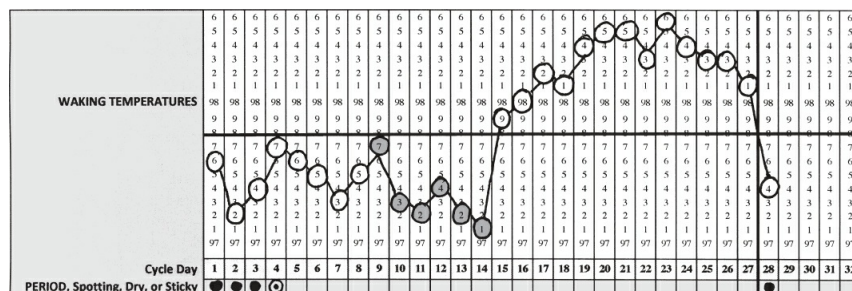
Charting Your Temperature

1. You can record your temps at any time that day.

2. If the temperature falls between two numbers on a glass thermometer, always record the lowest temp.
3. Record and connect the temps with a pen.
4. Unusual events such as stress, illness, travel, or moving should be recorded in the Notes row of the chart. Temps taken earlier or later than usual should be noted under Time Temp Taken.
5. If your temps seem confusing or erratic, try taking them vaginally for at least a full cycle from period to period.
6. If you think a temp is outside the normal range, apply the Rule of Thumb by waiting until the next day to draw the connecting line. Omit any aberrant temps by drawing a dotted line between the normal ones on either side.

Drawing the Coverline

1. After your period ends and once you start noticing wet cervical fluid, begin watching for a temp that is higher than the cluster of 6 preceding temps.
2. Identify the first day your temperature rises at least two-tenths of a degree above the *highest* in the cluster of the preceding six temps.
3. Look back and highlight the last six temps before the rise.
4. Draw the coverline *one-tenth above the highest* of that cluster of six highlighted days preceding the rise.



Barbara's chart. A standard temperature pattern with coverline. Note that the first day that Barbara noticed a temperature shift was Day 15, so she counted back six days and highlighted that cluster of temperatures. Then she drew her coverline on 97.8, which was 1/10th above the highest of the cluster, which was 97.7 on Day 9. This cycle length was 27 days.

Observing Your Cervix

1. Begin checking your cervix at least once a day after menstruation has ended.
2. Make sure your fingernails are trimmed, and always wash your hands with soap first.
3. Try to check about the same time each day.
4. The most effective position in which to check is squatting.
5. Insert your middle finger and remember the mnemonic SHOW as you observe the following conditions of the cervix:

Softness (firm/soft)

Height in the vagina (low/high)

Opening (closed/open)

Wetness (nothing/sticky/creamy/eggwhite)

6. Women who have vaginally delivered children will always have a slightly open cervix.
7. The best time to begin observing cervical changes is when the wet-quality cervical fluid starts to build up in the days before ovulation.
8. Don't be surprised if you feel nabothian cysts on your cervix.
9. You should not check your cervical position if you have genital sores or vaginal infections.
10. You may prefer to check your cervix for only about a week, from the first day of fertile-quality cervical fluid through to your thermal shift.
11. You may want to focus on just one or two of the characteristics of the cervix.

Charting Your Cervix

1. Use a circle to represent the cervical opening.
2. Typically, the cervix will progress from low, closed, and firm

before ovulation to high, open, and soft around ovulation, as seen in the chart below.

•	○	○
F		

 = low, closed, and firm (F)

•	○	○
	M	

 = midway, partly open, and medium (M)

•	○	○
		S

 = high, open, and soft (S)

✂ NOW THAT YOU KNOW

Congratulations! If you understood this chapter, you are ready to apply your newfound knowledge toward avoiding pregnancy naturally, getting pregnant, or simply taking control of your gynecological health.

OTHER WAYS TO MASTER CHARTING

If you have had any trouble internalizing the basic concepts taught in this book, I would highly encourage you to take a class in the Fertility Awareness Method or find a qualified [Fertility Awareness counselor](#).

In addition, there are other types of master charts which you can download from tcoyf.com. They are summarized on the last page of the book.

PART  THREE

*B*EING PROACTIVE
WITH YOUR HEALTH

Anovulation and Irregular Cycles

None of us are Barbie dolls. As much as Madison Avenue tries to convince us that all women should be 5'9" and supermodel thin, the reality is that there is tremendous variety among women. And, of course, you should know by now that the conventional wisdom that all women should have 28-day cycles and ovulate on Day 14 is simply not true.

Not only can a woman's cycle lengths vary—but they may be different depending on what phase of life she is in. So you may find that you'll go through months with only intermittent ovulation, such as during adolescence, just coming off the pill, breastfeeding, or approaching menopause. And your cycles may also fluctuate due to temporary situations such as illness, travel, stress, or exercise. The beauty of charting your cycles, though, is that you can take control and understand what is transpiring in your body on a daily basis, regardless of your particular circumstances.

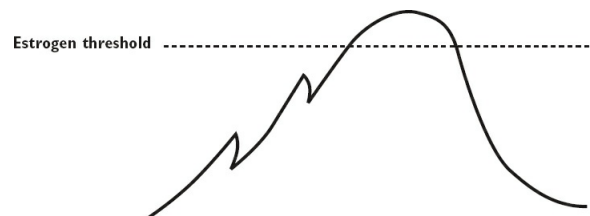
So what defines an irregular cycle? As you know by now, cycles that vary between about 21 to 35 days are considered normal, unless you have other troubling symptoms. In general, you should see your doctor if they fall outside of that range or are accompanied by inconsistent amounts of bleeding. The quality of menstruation following ovulation is usually fairly consistent, and thus, if your cycles are irregular with bleeding that is sometimes light, sometimes heavy, sometimes red, sometimes brown, sometimes with clots, and sometimes without, it's often an indication that you are not ovulating normally, if at all.

There are differences in the way your fertility signs are reflected over

time, depending on whether you are experiencing:

A typical cycle: In a normal cycle, your body prepares for the release of an egg in a fairly timely, predictable manner. After your period, under the influence of rising estrogen, you'll usually have several days of possibly no cervical fluid or maybe sticky, followed by days of building up to a progressively wetter fertile-quality cervical fluid. After the egg is released, your cervical fluid will rapidly dry up until you start the pattern over again the next cycle.

An anovulatory phase (low body weight, breastfeeding, premenopause, etc.): This refers to those periods of time when women take longer to release an egg. In such special circumstances, your body could theoretically take up to a year or longer to finally build up a high enough level of estrogen to trigger ovulation. It's almost a twosteps-forward, one-step-back situation, in which your body may make many attempts to ovulate before it finally is able to do so, as seen in the graphic below.



During this time, you may notice what are referred to as “patches” of cervical fluid. Instead of the classic buildup typical of normal cycles, you may see a series of patches of wetness interspersed with drier days.

This chapter is devoted to what transpires in your body during these special circumstances when you don't ovulate or you do so very sporadically. [Chapter 9](#) discusses ways you can try to balance your hormones to start ovulating again. And [Appendix J](#) discusses how to use FAM for birth control during such times.

✂ DIFFERENT PHASES OF ANOVULATION OR IRREGULAR CYCLES IN WOMEN'S LIVES

Adolescence

American girls typically start to menstruate between 12 and 14 years old. But the onset of periods doesn't necessarily mean the release of an egg every cycle. In fact, one of the factors that characterize menstrual cycles in teenagers is irregularity due to fluctuating estrogen levels, and thus cycles don't automatically start out predictably. It's a gradual process that can take several years while the hormonal feedback system matures. During this time, then, an adolescent's cycles may vary considerably, with many anovulatory ones dispersed throughout.

Coming off the Pill

One of the greatest motivations for women to learn about FAM is the frustration they feel with the numerous side effects they often experience while on the pill, both subtle and overt. If it isn't headaches and weight gain, it's breakthrough bleeding.

But probably the biggest concern I have as a women's health educator is the fact that women are routinely prescribed the pill to help "regulate" their cycles. The problem with this approach is that the actual cause of the irregularity is never addressed, such that when they go off of the pill, their cycles usually revert back to what they were before. So if a woman was prescribed the pill to regulate her cycles when she was say, 23, and decides to go off at 33 to try to get pregnant, she may be stunned to discover that not only did her cycles return to their pre-pill irregularity, but it's now 10 years later and she may be confronted with the reality that she has a condition such as PCOS that was never treated when its symptoms were first revealed.

The insidious problem of the pill masking potential fertility issues is so troubling that I think women should always be apprised of this potential drawback before they begin to take it. In any case, if you are just coming off

the Pill or other hormonal birth control and starting to chart, I discuss what to expect [here](#).

Pregnancy and Breastfeeding

If you were to take a survey of pregnant or breastfeeding women, one of the things they would probably tell you they enjoy about their condition is that their periods have stopped. Of course, it makes sense physiologically for the woman's body to be incapable of getting pregnant again following conception. Once a woman becomes pregnant, she won't ovulate until after the baby is born.

And if she is breastfeeding "on request," that is, virtually every time the baby cries to be fed, she may not resume ovulating again for many months to even a year or so after the baby's birth. This is because every time a baby suckles, it stimulates prolactin, a hormone that indirectly suppresses the FSH and LH that are imperative for ovulation. But in order for breastfeeding to efficiently prevent the release of eggs, the baby must suckle consistently throughout the day and night.

A breastfeeding woman could go a year or more without ovulating and experience the same Basic Infertile Pattern (BIP), whether it be dry, sticky, or a combination, day after day. The reason she usually won't initially see wet-quality cervical fluid is that the low estrogen levels, which are indirectly caused by the hormone prolactin, will also keep fertile-quality cervical fluid from being produced. The trick is for breastfeeding women to be attentive to the Point of Change in the quality of cervical fluid that indicates that ovulation will be resuming soon. Because cycles while breastfeeding can be either nonexistent or quite confusing, you should read [Appendixes I and J](#) if you plan to use FAM for birth control during these times.

Premenopause

Menopause is the time in a woman's life when she ceases ovulating and having menstrual periods altogether. It typically occurs around age 51. But the time leading up to menopause can take up to about a decade, with fertility actually starting to significantly diminish about 13 years before her last

period. During premenopause, her cycles may start appearing unlike anything she is used to. Cycle lengths tend to initially decrease due to shorter luteal phases. Eventually, though, the cycles become longer and longer as the number of times an egg is released becomes less frequent. Finally, cycles cease altogether. A woman is generally said to have completed menopause if she has gone for one full year without a period.

As with breastfeeding, cycles while approaching menopause can be fairly tricky. You should therefore read [Chapter 22](#) and [Appendix J](#) carefully if you plan to use FAM as contraception during the premenopausal years.

THE DIFFERENCE BETWEEN AN ANOVULATORY CYCLE AND BEING ANOVULATORY

An “anovulatory cycle” is somewhat transitory, occurring now and then in most women at some point in their lives. For example, you might have developed a fever just before you were about to ovulate, which prevented the egg from being released. Or perhaps you tried a completely nutso diet of cotton balls (no joke—some have!), which basically told your body that it was full but that until you get your act together, ovulation’s not gonna’ happen. Or you traveled to, say, Vladivostok for seven weeks, and didn’t resume ovulating until you got back.

“Being anovulatory,” on the other hand, is a longer period of time lasting perhaps months on end, and may or may not resolve itself. This is caused by everything from breastfeeding or being underweight to having a medical condition such as PCOS or hypothyroidism.

✿ ANOTHER GREAT REASON TO CHART

In anovulatory cycles, non-charting women may assume they are menstruating normally. So why would they continue to experience bleeding if ovulation has not occurred? This type of bleeding results when estrogen production continues to develop the uterine lining without reaching the threshold necessary to trigger ovulation. In such a case, one of two things may happen that lead to what appears to be a menstrual period:

- The estrogen builds up slowly to a point below the threshold and then it drops, resulting in “estrogen withdrawal bleeding.”
- More commonly, the endometrium builds up slowly over an extended period of time, eventually to the point where the resulting uterine lining is so thickened it can no longer sustain itself. Since it doesn't have progesterone to maintain it, the uterine lining is released in what is known as “estrogen breakthrough bleeding.”

In either case, if you weren't charting, you might think you were simply menstruating, though you may notice a difference in the type of bleeding. Specifically, the flow can be either unusually light or heavy, and of course, the timing can result in cycle lengths all over the map, or the chart, as it were.

✂ COMMON CAUSES OF TEMPORARY ANOVULATION OR IRREGULAR CYCLES

The following are other common reasons why women may not ovulate, either temporarily or for extended periods of time:

Illness

Being sick does not necessarily affect your cycle, but if it does, its impact is usually influenced by which phase you are in when you get sick. If your illness occurs before ovulation, it may delay it, or even prevent it altogether. If it occurs after, it will rarely affect your cycle, because the luteal phase usually has a consistent life span of 12 to 16 days that is typically not affected by factors such as sickness, travel, or exercise. For each individual woman, the luteal phase is even more consistent and its length will usually not vary more than a day or two.

Regardless, it is at times like this that observing your cervix and other secondary fertility signs can help you determine whether your fever had no impact, or did indeed affect your cycle by either delaying ovulation or preventing it altogether. Of course, if you are using FAM for birth control, you need to be exceedingly careful in ambiguous situations like this.

Ovarian Cysts

This is one of the most common causes of temporary anovulation and irregular cycles. If they cause you to not ovulate, they are usually due to a cyst in the first part of the cycle. If they cause you to have irregular cycles, they may occur in the second phase of the cycle. Either way, they are usually not serious. They're covered more extensively in the next chapter.

Travel

Traveling is notorious for affecting cycles. There's nothing quite like wearing

a pair of crisp white walking shorts while strolling down the Champs-Élysées in Paris when . . . uh-oh, surprise, surprise. Although many women are blessed with cycles that continue like clockwork while vacationing, many others are faced with the challenge of trying to figure out if or when they will get their periods.

As delightful as vacation may be for you, your body still interprets it as a type of stress. Many women find that their cycles become extremely long due to delayed ovulations. Others actually stop ovulating and getting periods altogether. Once again, charting your cycle can be very helpful in determining what is happening in your body. Keep in mind, though, that traveling is a time when it's especially helpful to chart all three signs in order to understand any ambiguities that result from the disruption in your life. In particular, always be on the lookout for factors that may affect your temps.

Years ago, my college roommate seemed to redefine the limits of travel-related anovulation. Cathy spent her junior year in England. She had a period just before she arrived in London, then didn't menstruate for the ten months she lived there. But sure enough, the month she returned home, she got her period again.

Exercise

Strenuous exercise has the potential to delay or even prevent ovulation completely. You may be tempted to use this as an excuse not to exercise—nice try! It seems to affect mostly those who are competitive athletes with a very low ratio of body fat to total body weight. The women most affected are athletes such as runners, swimmers, gymnasts, and ballet dancers. But what is somewhat inconclusive about studies of these athletes is that they seem to have been unable to separate out the effects of fat ratio from physical and emotional stress, diet, and even changes in thyroid metabolism. All of these can affect a woman's cycle.

Weight Gain or Loss

In order for the average woman to maintain normal ovulatory cycles, she

should have a BMI (body mass index) between 20 and 24, or at least 22% body fat. You can easily check a chart online to determine your BMI.

Extremely thin women, particularly those with anorexia, often stop having periods altogether. Since they don't have enough body fat, they don't produce the hormones necessary to ovulate. In addition, women who lose 10 to 15% of their total body weight (or about one-third of their body fat) may also cease having periods. And as mentioned above, female athletes often stop menstruating because of the combination of lean body fat and stress caused by competition.

Among my clients was a French couple who had been trying to get pregnant for five years. They asked to meet with me privately rather than take a group seminar because he was a doctor and felt the class might be too elementary for them. When they arrived at my office, I sensed a potential fertility problem immediately.

The woman was tall and extremely thin. I asked her whether she would consider gaining a little weight to alter her cycles, but she said she was adamantly opposed to consuming any fat in her diet. Yet they both claimed they were totally perplexed as to why she wasn't getting pregnant, since she took such good care of herself. But when I asked her to describe her cycles to me, she said there weren't any to describe—she hadn't had a period in five years!

I was stunned. Here were two educated people, one of them a physician, yet they couldn't understand why she wasn't getting pregnant even though she wasn't menstruating. I questioned why they thought she was fertile if she hadn't had a period in all those years. Their answer amazed me. Years prior, when they were trying to avoid pregnancy, her physician asked her what form of contraception she used. She said they didn't use birth control because she wasn't menstruating. Her physician at the time insisted that she protect herself anyway, since, as he rightly pointed out, she could still ovulate at any time. Based on that one comment, that she could ovulate at any time, she interpreted that to mean she was indeed fertile.

I was able to explain to them that the odds of pregnancy must be seen differently, depending on the goals of the couple. From a contraceptive perspective, her doctor was right—it's imperative that

women protect themselves because ovulation always occurs before menstruation. But if a woman is trying to get pregnant and is not menstruating, then she is clearly not ovulating. Their experience taught me how easy it is to confuse the risk of an unplanned pregnancy with the slight possibility of one that is wanted. Unfortunately, I never did learn what happened to them because they returned to France shortly after we met, but I assume that they at least dealt with her anovulatory condition.

On the other end of the spectrum are women who tend to be overweight. They too may stop ovulating. At this point, you may be thinking, “Wait a second. She just said that it could be problematic if the woman is too thin, and now she’s saying it could be a problem if she’s too heavy.” Such is the nature of women’s bodies! Excess fat tissue can cause too much estrogen, disrupting the hormonal feedback system that signals the egg follicles to mature.

Stress

One of the most likely causes of occasional long cycles is stress, both physiological and psychological. If stress affects a cycle at all, it tends to delay ovulation, not accelerate it. As you know, the timing of ovulation will determine the length of the cycle—the later it occurs, the longer the cycle will be. Sometimes, if stress is severe, it can actually prevent ovulation from occurring at all, as seen [here](#).

✂ MEDICAL CAUSES OF ANOVULATION OR IRREGULAR CYCLES

In addition to the various temporary factors listed above, a variety of potentially serious medical conditions may cause women to stop ovulating indefinitely. Many of these conditions can be treated, but all will require consultation with a physician who will need to determine the cause of your anovulation or irregular cycles.

Whether or not you're trying to get pregnant, I would encourage you to be examined sooner rather than later. Highly irregular cycles can reflect a medical condition requiring treatment, not only because of its overall impact on your health, but also because of its implications for your fertility. If you're trying to avoid pregnancy, a medical condition can make the Fertility Awareness Method more challenging to use effectively. And if you're trying to get pregnant, it can prevent you from doing so. In any case, your doctor should examine you for a number of conditions, especially those discussed below.

Hypothyroidism

The health of the thyroid gland is intimately connected to a woman's cycle, and therefore, one of the first things to consider when dealing with anovulatory cycles is that of a low-functioning thyroid, the bow-shaped gland at the base of your neck. Because this condition can so directly lead to hormonal imbalances, it's more thoroughly discussed in [Chapter 9](#).

Polycystic Ovarian Syndrome (PCOS)

Even if you've never heard of this condition, there's a good chance you know someone with it, or you, yourself, have it. PCOS is one of the most common causes of anovulation and irregular cycles, affecting up to about 10% of all women. It's a serious hormonal disorder that impacts almost every organ of the body. For this reason, I've written more extensively about it in the

following chapter. But the takeaway message here is that if you have very irregular cycles, or ones longer than 35 days, or you don't seem to ovulate at all, you should be diagnosed by a physician (preferably a reproductive endocrinologist), who can start treating you as soon as possible.

Endometriosis

Women with this condition have tissue from their uterine lining that implants in sites other than the uterus, and this may cause numerous symptoms. As with PCOS, it is a fairly common condition. It may cause irregular cycles, but not to the extent that PCOS does. Again, because it's so prevalent, I've included an extensive discussion of it in the next chapter.

Excessive Prolactin (Hyperprolactinemia)

Prolactin is often referred to as the breastfeeding hormone, because it's what circulates in nursing women, and it's often partly responsible for suppressing ovulation in women who are fully breastfeeding. But occasionally, a woman who is not nursing (or hasn't even given birth) will have an excessively high level of the hormone in her body, preventing ovulation altogether. It may be due to a benign pituitary tumor. Regardless, it's a condition that is fairly easy to treat.

Primary Ovarian Insufficiency (POI)

You may still occasionally hear this condition referred to as Premature Ovarian Failure (POF) or Premature Menopause. While it's true that the ovaries may stop functioning normally before the age of 40, and sometimes as early as the teen years, the former term is misleading. Indeed, sometimes the ovaries don't necessarily shut down completely, so women may continue to menstruate intermittently even though their cycles will undoubtedly be irregular and eventually cease altogether.

However, it's also the case that POI symptoms caused by the lessened production of estrogen may mimic those of perimenopause, such as irregular cycles, hot flashes, or vaginal dryness. In addition, women may notice that

intercourse can become painful from thinning vaginal walls.

There are two main concerns for women with this condition:

1. POI is an endocrine disorder that has serious health consequences that need to be addressed. Women with POI don't produce enough estrogen, so they should consider taking estrogen-progestin therapy until at least age 51, in order to help prevent osteoporosis and possible heart disease.
2. Women with POI are unlikely to be able to still get pregnant. But the good news is that they could probably still carry a baby to term through donor eggs, as discussed [here](#).

✿ PUTTING ANOVULATION IN PERSPECTIVE

As you have seen, there are many reasons why women don't necessarily ovulate every cycle. Some involve particular phases in a woman's life, such as adolescence, pregnancy, breastfeeding, or premenopause. Others are due to more transitory factors such as coming off the pill or other hormones, as well as stress, illness, exercise, body weight, and travel.

And finally, some are caused by more serious medical conditions. The important point is that anovulatory cycles need to be understood in the right context. At times, they are completely normal and even predictable. But if you think you have a serious medical issue, your charting will help you and your doctor to accurately diagnose it.

In fact, anovulation and irregular cycles are often one of the easier fertility issues to treat, since they are frequently caused by a hormonal imbalance that can be rectified by natural remedies. [Chapter 9](#) specifically addresses ways you can try to treat these issues yourself. Regardless, though, you may want to first see a physician to rule out anything serious.

✂ FERTILITY AWARENESS AND ANOVULATION

Remember that while you are obviously not fertile when an egg isn't released, ironically, you need to view every day as if you were still in your preovulatory phase. So if you plan to use Fertility Awareness for contraception during periods of anovulation, you should be aware that the rules are somewhat more involved than the normal ones you will be learning in [Chapter 11](#). Depending on your own particular anovulatory pattern, this may or may not be difficult. In any case, I suggest that you finish reading the normal rules first, and then, if you have determined that you are in an anovulatory phase of your life, you should carefully read [Appendix J](#).

Three Prevalent Conditions All Women Should Be Aware Of: Ovarian Cysts, Endometriosis, and PCOS

*M*y hunch is that many of you will be so eager to get to the nuts and bolts of natural birth control or pregnancy achievement that you may prefer to skip this chapter. That's fine. But just know these conditions are so prevalent that there's a decent chance that you yourself will eventually discover through charting that you have at least one of them.

I imagine you'll have a few "Aha" moments while reading about these disorders, and my hope is that by charting you'll feel more equipped to take the first steps necessary to deal with them. Even if you're not personally affected by any of these, you'll now be able to educate your friends and family on the various symptoms that so many have likely already experienced.

The first condition, **ovarian cysts**, is the most common, and rarely poses serious health problems. However, if you realize you have one, you will want to learn what to do if they become painful or a nuisance.

The second, **endometriosis**, affects about 10% of women, and as you will learn, is an often strange and invasive condition that each woman experiences in her own way. Some may never be impacted by it or not even be aware that they have it until they try to get pregnant, while others may experience almost debilitating pain that will be easier to diagnose if they are charting.

The third, **Polycystic Ovarian Syndrome (PCOS)**, is another condition

that affects about 10% of women. However, unlike the first two, it's very important to get on top of this one as soon as you realize you have it, because it's associated with major long-term health risks.

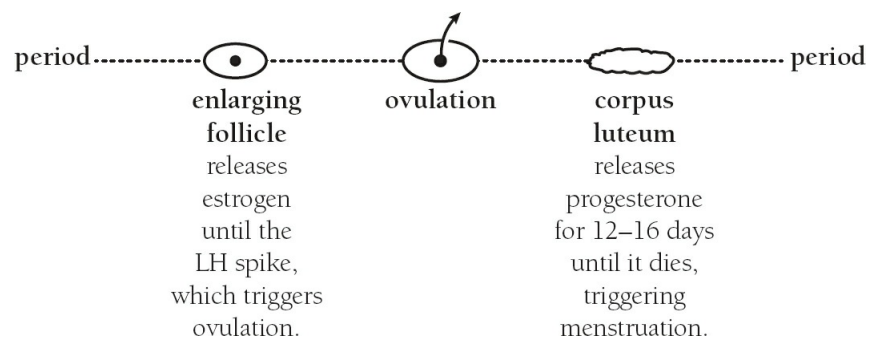
♀️ OVARIAN CYSTS

Most women will experience at least one ovarian cyst in their life, and usually, they are no big deal. In fact, unless you were charting your cycles, you would not necessarily be aware that anything was even amiss.

There are several types, the most common being functional cysts, which are called that because they develop as a result of the normal function of the menstrual cycle. But instead of following a typical path, they continue to grow beyond normal. Some of these functional cysts may cause anovulatory, irregular, or just plain confusing cycles. Unfortunately, there is no consensus among physicians as to how to define or treat them. Still, the following should be a helpful overview.

In brief, ovarian cysts are enlarged fluid-filled sacs on the ovary, typically categorized by when they occur in relation to ovulation. In most cases, these cysts persist longer than normal, but are completely benign and will usually resolve on their own. But if they cause pain due to swelling, twisting, rupturing, or bleeding of the cyst itself, further treatment may be required.

All ovarian cysts can be removed with surgery, but it should only be considered as a last resort, since it can compromise fertility by causing adhesions. So if you plan on getting pregnant one day, you'll want to be assertive by asking whether you could wait for them to resolve on their own, or if there is another option. ([Click here](#) about a type of surgery that decreases the risk of scarring anytime surgery is performed on the ovary.) In any case, it will be easier to understand the three types of functional cysts if you first review the normal sequence of events surrounding ovulation below.



Functional Ovarian Cysts

As mentioned above, these types of cysts are, by definition, a result of the normal functioning of the menstrual cycle gone somewhat amiss, and thus not surprisingly, their cause is hormonal. They may occur just once, or recur often.

Follicular Cyst

With this type, the follicle surrounding the egg continues to grow as you approach ovulation, but instead of rupturing to release the egg, as it normally would, it enlarges into a cyst that encases the egg inside, preventing ovulation.

How it could affect your chart

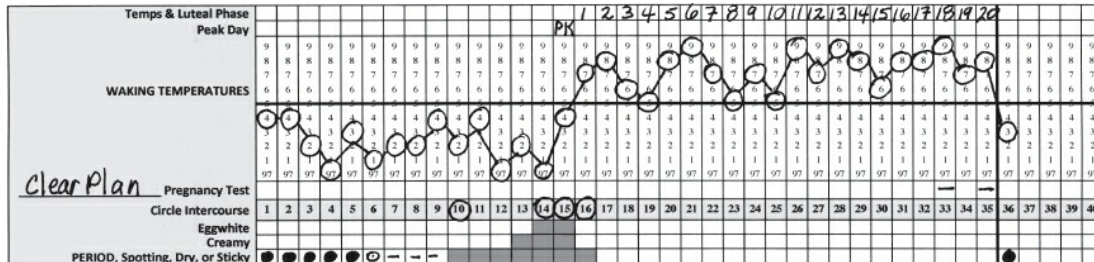
You may continue to produce fertile-quality, wet or slippery cervical fluid for weeks on end, but you would never experience a thermal shift indicating ovulation had taken place. Eventually, you would probably have breakthrough bleeding (as opposed to a true period), thus ending in an anovulatory cycle. You would still treat that bleeding as Day 1 of a new cycle.

How it can be treated

Follicular cysts will usually resolve on their own, typically by Day 5 of the next “period” (again, it’s not technically a period because ovulation did not take place prior to the bleeding). However, if it’s causing you chronic pelvic pain, the most efficient and successful treatment is a progesterone injection. This will break the estrogen dominance, and you will usually start menstrual-like bleeding within 3 to 5 days. Birth control pills are also often prescribed, but they don’t address the underlying cause! And of course, you already know the potential problem with ovarian surgery.

control pills are often prescribed, but again, they don't address the underlying cause. Finally, the risk of surgical scarring is still an issue.

For those trying to conceive, you should [click here](#) for more on the Luteinized Unruptured Follicle Syndrome.



Hanna's chart. Luteinized Unruptured Follicle. Hanna seems to have an absolutely normal pregnancy chart, since she had the classic buildup of cervical fluid, culminating in a Peak Day on Day 15 followed by a thermal shift on Day 16 and then 20 days of high temps after. But on the 18th and 20th days of her luteal phase, she took a pregnancy test which was negative both times. Then she got her "period" on Day 36.

Corpus Luteum Cyst

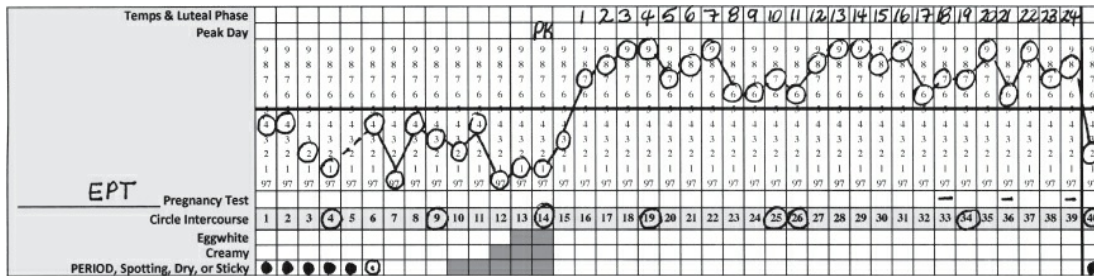
With this type, the egg is released during normal ovulation, and a corpus luteum develops, as usual. However, instead of degenerating within 12 to 16 days, the opening where the egg was released is sealed off and filled with excess fluid or blood, thus causing it to grow into a cyst. Fertility drugs tend to raise your risk of getting one.

How it could affect your chart

It could appear as if you had possibly gotten pregnant, or you may indeed have gotten pregnant. This is because, again, you would experience a normal buildup of cervical fluid with a Peak Day, followed by a thermal shift with post-ovulatory temps remaining high, possibly beyond 16 days due to the continued release of progesterone. (As with LUF above, an HCG pregnancy test by the 20th day of the luteal phase should clarify whether you are pregnant.) The end result would be that your period might be delayed until the cyst disappears. But if you did indeed get pregnant, the cyst would usually resolve within the first three months of your pregnancy.

How it can be treated

No treatment is usually necessary since these innocuous cysts almost always resolve on their own within a few weeks to a few months.



Michi's chart. Corpus Luteum Cyst. Michi seems to have a completely normal pregnancy chart, since she had the classic buildup of cervical fluid, culminating in a Peak Day on Day 14 followed by a thermal shift on Day 16 and at least 18 high temps after. But on the 18th, 21st, and 24th days of her luteal phase, she took a pregnancy test which was negative each time. Then she got her “period” on Day 40.

In reality, with this type of cyst, even though it appears to be a completely normal cycle, what actually happens is that the egg is released, but the resulting corpus luteum doesn't disintegrate after 12–16 days, continuing to produce progesterone that raises the temperature and delays the onset of bleeding. Unlike LUF, though (discussed on the prior page), a woman could indeed be pregnant, and continue to have this harmless corpus luteum cyst into the first trimester of her pregnancy.

The Difference between Functional Cysts

Functional ovarian cysts result from an underlying hormonal disorder of the menstrual cycle, so they may recur if the hormonal dysfunction is not addressed. But most require no surgery, and usually resolve on their own.

	Follicular Cyst	Luteinized Unruptured Follicle (part of the syndrome referred to as LUFs)	Corpus Luteum Cyst
Egg released	No	No	Yes
Thermal Shift	No	Yes	Yes
Peak Day	No	Yes	Yes
Appears as if ovulation occurred	No	Yes, even though it didn't	Yes, because it did
Appears as if pregnancy occurred because of possibly long luteal phase	No	Maybe, but more often not	Yes. And in fact, could be pregnant
Possible symptoms	Chronic pelvic pain from fluid or blood leaking from cyst, usually one-sided Abnormal periods Pelvic pressure Intense pain and nausea if twisting of the ovary	Possible acute pain if the cyst enlarges to 5 to 6 cm (about 2 inches)	Delayed period Spotting One-sided pelvic pain Intense pain and/or bleeding if it ruptures Intense pain if twisting of the ovary
Treatment	Usually resolves on own by Day 5 of bleeding. Confirmed through ultrasound. Otherwise, progesterone injection to disrupt estrogen dominance if pain present. Surgery usually unnecessary unless ovary twists on itself.	Usually resolves on own by Day 5 of bleeding. Otherwise, progesterone injection if pain persists, with pain relief often within an hour.	They typically resolve on their own. If they rupture, surgery may be necessary.
Frequency	The most common type of ovarian cyst.	Believed to occur in about 15% of women dealing with infertility.	Less frequent than follicular cysts. It's normal to occasionally get them during early pregnancy.
Comments	May have day-after-day of fertile-quality cervical fluid because the cyst causes estrogen to continue to be released without progesterone to dry it up. Delayed Peak Day.	A pregnancy blood test by Day 20 of (deceptive) luteal phase will confirm that pregnancy did not occur. Decreased progesterone post Peak Day. May be longer than 16 days post Peak Day.	A pregnancy blood test by Day 20 of luteal phase will usually confirm whether or not pregnancy occurred, and may be necessary to rule out ectopic pregnancy. Clomid increases the risk of a corpus luteum cyst.

Other Types of Ovarian Cysts

Dermoid cyst

If you've ever seen a picture of a dermoid cyst, you might think it's someone's idea of a bad joke. They're somewhat common in women between 20 and 40 years old, but are usually benign and fairly innocuous. They are bizarre saclike growths which often contain structures such as hair, skin, and teeth (yes, teeth), since they form from cells that produce human eggs. They may actually grow anywhere in the body, though they are perhaps most

common on the ovaries and are typically only discovered in a routine pelvic exam.

They often don't cause any symptoms, but they can become extremely painful if they grow and cause ovarian torsion. They are rarely cancerous, and typically do not affect a woman's fertility or cycle. But it's considered good medical practice to remove them since they can continue to grow. They can be removed with either laparoscopy or conventional surgery.

Cystadenoma or Cystoma

These cysts develop from ovarian tissue and may be filled with a watery substance or viscous material. They are benign tumors that rarely turn malignant, but they can be painful because they may grow between 6 to 12 inches and cause ovarian torsion. They are usually diagnosed with simple imaging or X-rays.

They can impair ovulation by causing adhesions on the ovarian tissue. The watery types are usually aspirated, but the viscous types are usually removed through surgery. Of course, you know the drill about ovarian surgery.

Endometrioma or “Chocolate Cyst”

These cysts develop on the ovaries (and elsewhere) as a result of endometriosis, the cellular condition discussed next. They typically contain old blood which resembles a chocolate syrup-like substance, and often adhere to surrounding structures such as the ovary, fallopian tubes, and bowel. Symptoms are the same as those often associated with endometriosis (i.e., pelvic pain, painful periods, and painful sex).

If they rupture, the pain may be acute, and blood tests may reflect an elevated white blood cell count with a low-grade fever. They can also impact fertility by causing adhesions on the ovaries that prevent ovulation. As with all the others, they can be removed with surgery.

🌸 ENDOMETRIOSIS

This is one of the most curious gynecological conditions and is surprisingly prevalent. In this disorder, some of the uterine cells that normally shed during menstruation attach themselves elsewhere in the body, most often within the pelvic cavity. They usually grow in either small superficial patches, in thicker, penetrating nodules, or within cysts in the ovary. An easy way to think of it is that the uterine tissue inside the uterus is the *endometrium* and that same tissue outside of the uterus is *endometriosis*.

The most puzzling aspect of the condition is that the degree of pain it causes is completely unrelated to its severity. So it may produce absolutely no symptoms even though it has spread extensively, or cause debilitating pain with just a minor amount of spreading. It's also unpredictable in that it may or may not spread further.

Causes of Endometriosis

There are many theories as to what causes it, with the most common being “retrograde menstruation” in which some endometrial cells flow backward through the fallopian tubes and out into the pelvic cavity, where they start to implant. But that theory alone is not enough to explain how it's possible for endometrial cells to travel to distant sites, which is why researchers hypothesize that it can also be spread through blood or the lymphatic system. And finally, some believe that the endometrial cells can even be inadvertently transplanted through pelvic surgery.

Regardless, once these cells are implanted in other areas, they behave as if they still line the uterus, thickening during the cycle and shedding during menstruation. But since there isn't an exit route, the immune system perceives the bleeding as a type of cut, and tries to heal it, forming scar tissue. Eventually, excess scar tissue can become adhesions that can cause a lot of pain and lead to compromised fertility, depending on where they adhere.

Symptoms of Endometriosis

The first three symptoms below are the classic signs, but even then, not all women with the condition experience them.

- Intense menstrual cramps
- Pain during intercourse, especially with deep penetration
- Infertility
- Chronic pelvic pain, including lower back pain
- Heavy or irregular bleeding
- Premenstrual spotting
- Intestinal pain
- Painful urination or bowel movements during menstrual periods
- Diarrhea, constipation, bloating, nausea, dizziness, or headaches during menstrual periods
- Fatigue
- Low-grade fever
- Low resistance to infection

Diagnosing Endometriosis

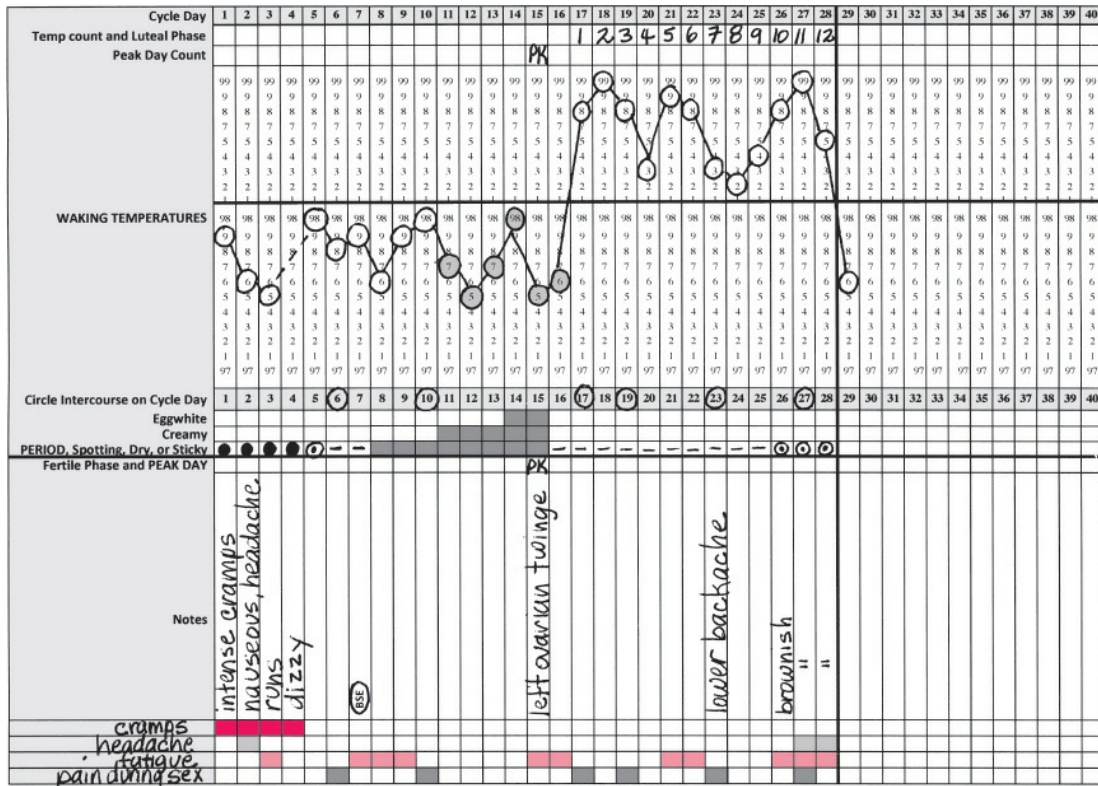
If you notice that you have the following fertility signs in addition to some of the symptoms listed above, it may further confirm your need to be tested.

- short menstrual cycles (less than 27 days) with periods lasting longer than eight days
- barely any days of wet cervical fluid or even dry days throughout the cycle
- a luteal phase which may be a normal length of 12–16 days, but reflect low temps hovering near the coverline, signifying potentially lower than normal progesterone levels

The bottom line is that endometriosis can be very difficult to diagnose. Ultrasound is of limited value unless you happen to have ovarian

endometriomas or “chocolate cysts,” as mentioned above. Even then, it would only pick up that endometriosis, and not any other throughout the pelvic cavity.

ENDOMETRIOSIS SAMPLE CHART



Scarlet’s chart. Endometriosis. Scarlet has been experiencing debilitating periods for the last year or so. In addition, every time she has sex, she feels a deep pain inside (as recorded in the bottom row), which has obviously affected her desire to have intercourse. Along with these issues, she often feels so tired that it’s hard to be productive. Finally, she has at least 3–4 days of premenstrual spotting every cycle. Any one of these symptoms would maybe not be indicative of anything serious, but taken as a group, they indicate that she most likely has endometriosis.

The only reliable and gold standard test is laparoscopy, with microscopic examination of the tissue as confirmation. But it’s crucial that the surgeon have a thorough understanding of the various appearances of endometriosis in order to perform “near-contact” laparoscopy, a specific technique that allows for a much more accurate diagnosis. This is because the microscopic endometrial cells can often only be seen at an even more magnified level than normal. Even then, some of the endometrial tissue can be so miniscule that it’s hard to detect, making it possible to overlook the condition altogether, or to underestimate its severity.

Finally, the diagnostic laparoscopy should ideally be performed in the pre-ovulatory phase of the cycle, when the chances of recurrence following laparoscopic treatment is less likely.

Treating Endometriosis

One of the most discouraging things about this disease is that remission is rarely permanent. It will usually return once therapy stops or often within months of surgery. Interestingly enough, pregnancy itself provides a respite from continuous cycles that promote endometriosis. Of course one of its cruel ironies is that, even though pregnancy is one of the few natural conditions that help the disease to regress, the condition itself often causes infertility.

Endometriosis, probably more than any other condition affecting fertility, needs to be treated on a very individual basis, since there are numerous variables to consider. How old are you? Do you have symptoms requiring pain relief? Do you want to have children? In general, the options are the following:

- **Nonsteroidal antiinflammatory drugs**

These are used to help reduce the pain. They work in part by stopping the release of prostaglandins, one of the main chemicals responsible for painful periods. Unfortunately, they only treat the pain, but do not shrink or prevent new cellular growth. Examples include ibuprofen (Advil and Motrin) or naproxen (Aleve, Anaprox, and Naprosyn).

- **Hormonal birth control**

This can reduce the bleeding that may cause the pain. Obviously, this would be inappropriate for those who desire pregnancy. Regardless, it's only a temporary fix while on the hormones and does not cure the condition. And of course, hormonal birth control has its own set of risks and side effects.

- **Gonadotropin releasing hormone agonists**

These drugs work by, in essence, causing a temporary menopause. They're also exceptionally good at reducing severe pain, but again,

they cannot be used for women trying to get pregnant. In addition, the drugs have numerous side effects such as hot flashes, vaginal dryness, decreased libido, and insomnia, though taking a hormonal “add-back” of a very small amount of estrogen or synthetic progestin can help alleviate some of these symptoms.

While certainly less invasive than surgery, hormonal therapy only works in mild cases and has numerous side effects. Moreover, it is typically taken for at least 6 months in order to be most effective, although it rarely eliminates the underlying condition. Examples of hormone agonists include naferelin (Synarel), leuprolide (Lupron), goserelin (Zoladex), or danazol (Danocrine).

- **Surgery**

Laparoscopy is considered minimally invasive surgery and can often be used to drain fluid and remove small patches through laser or electrical current, but not all cases can be treated through the laparoscope. Both laparoscopy and more traditional surgery can remove adhesions, implants, or blood-filled cysts, regardless where they are in your body. But again, if you are planning on getting pregnant, you should be sure that your doctor is experienced and skilled in the type of surgery that lessens the risk of scarring. As mentioned earlier, it should ideally be performed in the preovulatory phase of the cycle.

Occasionally, more extensive surgery is necessary when already-present scar tissue is thick or involves delicate structures. And if you’ve had surgery and find that you still have pain, ask if your pelvic lymph nodes were treated for the condition, because if they weren’t, your pain may persist.

For more on endometriosis, [click here](#) of color insert.

✂️ POLYCYSTIC OVARIAN SYNDROME (PCOS)

This subject is probably more complex and challenging than any other in this book.

Briefly stated: PCOS is not for sissies.

This is the most common hormonal disorder among women of reproductive age and has the most far-reaching repercussions, including the possibility of major health risks later in life. So I want to give you the tools to identify whether you have it now, regardless of your future pregnancy goals. This will serve you well if that time comes, since you won't have to start at Square One trying to figure out what is taking so long to conceive.

So what is PCOS? The short answer is that it's a hormonal disorder primarily due to an overproduction of male hormones leading to the prevention of regular ovulation. Unfortunately, its causes, symptoms, and treatments are the topic of much confusion and disagreement within the medical community. Because of this, if you think you have this condition, you will need to do your homework in order to find the best medical advice for your particular situation.

The primary reason PCOS can be so confusing is that it's a syndrome and not a disease. More specifically, it's not one disorder, but a variety of possible conditions. However, it usually presents with one thing in common: an overabundance of immature follicles on the ovaries that rarely release an egg. As you'll also see, its various symptoms are all reflective of a hormonal imbalance that can have important consequences for both your fertility and general health.

Overt Symptoms of PCOS

Women who have PCOS may have different observable characteristics (called phenotypes), so they may appear physically different, such as being thin or obese. They may also have different genetic makeup (called

genotypes), which predisposes them differently to these various characteristics. Regardless, some of the classic signs that women typically have in varying degrees include:

- Long (over 35 days) or irregular cycles that rarely result in ovulation
- A pattern of limited cervical fluid for long stretches of time
- Frequent patches of fertile-quality cervical fluid which may or may not ultimately lead to ovulation
- Excessive body or facial hair (hirsutism)
- Male pattern hair loss
- Acne
- Obesity (about 50% of women with PCOS)
- Infertility

Clinical Symptoms

- Enlarged, white ovaries that have what appear to be a string of pearls on the surface—numerous immature follicles that never reach ovulation (see [picture](#) of the color insert)
- Elevated androgen (testosterone) and LH levels
- A reversal of the LH: FSH ratio (LH in women with PCOS is produced in excess of FSH, which is the opposite of a normal ratio)
- Often abnormal ovulation when it does occur (for example, the abnormal development of the egg as well as the corpus luteum)

Long-Term Health Risks

The reason why PCOS is so troubling is that it has a whole host of long-term health risks, depending on your genotype. For example, women who are predisposed to obesity are at significant risk for insulin resistance and metabolic syndrome, as well as for developing high blood pressure, diabetes, and heart disease later in life. And yet others with different genotypes may not have any of those risks.

The following is a more comprehensive list of conditions for which women with PCOS may run an increased long-term risk:

- Insulin resistance (in at least half of women with PCOS)
- Metabolic syndrome
- High blood pressure (hypertension)
- Type 2 diabetes
- Heart disease
- Endometrial cancer
- Breast cancer
- Ovarian cancer

Causes of PCOS

The causes are still not fully understood, but it's likely that a number of factors play a role. For starters, it appears to often be passed down genetically. In addition, excess insulin is often produced, which may in turn cause you to produce excess androgens (male hormones). This in turn can lead to the production of polycystic ovaries, in which your follicles remain undeveloped at the antral level, never maturing enough to release an egg. It is these follicles, stuck on the ovarian wall, that form the characteristic string of pearls.

These are considered among the most common causes, but to be clear, they're not present in all cases, and indeed, there may be other factors such as obesity and low-grade inflammation which intensify the underlying syndrome. Of course, much of the confusion is that at the same time, PCOS itself can exacerbate these conditions.

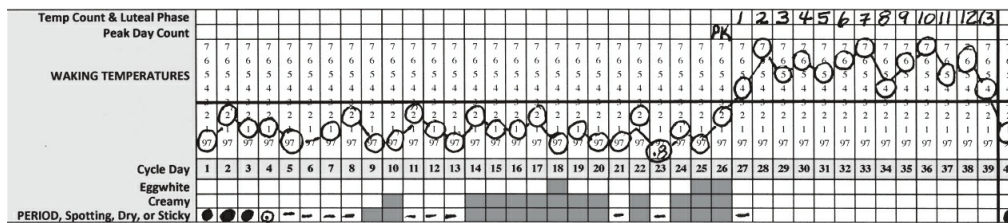
Diagnosing PCOS

Women often develop the condition as early as their teens, but are typically not diagnosed until their 20s and 30s. In any case, in order to be diagnosed with PCOS, women will usually have at least two of the following three symptoms:

- Irregular cycles greater than 35 days
- Elevated male hormones with associated conditions such as acne, excess facial and body hair, and male pattern hair loss
- The “string of pearls” on the ovary

In addition, you should be aware of a relatively new test that looks at your level of antimullerian hormone (AMH), which is associated with excessive antral follicles. A high AMH reading is therefore often considered an accurate marker for PCOS diagnosis.

Finally, other related disorders must be ruled out before the diagnosis of PCOS can be made. These include, for example, elevated prolactin levels, thyroid dysfunction, and androgen-secreting tumors.



Petra’s chart. PCOS. Petra experiences one of the classic hallmarks of a PCOS cycle—numerous days of fertile-quality cervical fluid culminating in a very delayed ovulation and long cycle, in this case, 39 days. In reality, PCOS cycles are often exceedingly long and irregular, up to 100 days or so. In this cycle, she eventually ovulates about Day 26 and has a thermal shift the next day.

MYTHS ABOUT PCOS

Symptoms of PCOS are the same for all women

Not every woman with PCOS is short and obese with excessive androgenic characteristics such as oily skin, acne, and excessive hair. Many are model tall and slender with no signs of high androgen levels. In fact, some women with the condition do not even have polycystic ovaries!

Women with PCOS cannot have children

It may be difficult, but women can still become pregnant with their own eggs.

Having your ovaries or uterus removed will cure PCOS

Because it's about so much more than just the ovaries, removing your reproductive organs will not cure the condition.

The birth control pill cures PCOS

The pill only regulates your bleeding, but it does nothing to address the underlying causes of the disorder.

Women who don't want children needn't worry about managing PCOS

Unfortunately, because the condition affects so many aspects of your general health, its impact on fertility is not your only significant concern.

PCOS remains the same over time

The characteristics and severity of PCOS actually decrease as women get older (finally, some good news about this condition!).

The Varied Approaches to Treatment

It's crucial that this disorder be treated entirely individually, depending on your phenotype and genotype, as well as whether or not you are trying to get pregnant. I address PCOS and pregnancy achievement in [Chapter 15](#).

There are several possible approaches, and unfortunately, physicians are fairly resolute about their preferred treatment, often vehemently disagreeing with each other. There are many pros and cons to each approach, so once you have been diagnosed, you will want to find a specialist who has as much experience in PCOS treatment as possible, such as a reproductive endocrinologist. Family doctors and even OB/GYNs may not be familiar enough with the complexities of this condition.

Treating PCOS with an Emphasis on Nutrition

Before trying any invasive medical options, you may want to do all you can to take control of your PCOS through the natural methods discussed in the next chapter, because in addition to being healthier for you all around, they

don't have any side effects.

Until recently, one of the only things that was clear is that it was important for women to get exercise and try to attain a normal weight. But they still tended to focus on the individual symptoms of, for example, irregular cycles, acne, or hirsutism. Now with the discovery of the role that insulin resistance plays in most women with PCOS, they also realize that recommending a typical low-fat-high-carbohydrate diet is neither effective nor healthy for women with this condition.

Rather, in order to keep PCOS symptoms in check, it's important to eat mainly foods that are low-carbohydrate and low-glycemic (minimally altering glucose levels). In addition, healthy diets should primarily include foods or combinations of foods that don't cause blood sugar to spike, as seen in the box below.

THE PCOS WAY OF LIFE DIET

- Always try to combine carbs with a protein or fat
- Select lower glycemic index foods (those that tend to have more fiber in them so that they don't turn to sugar in the blood so quickly)
- Space your carbs throughout the day to prevent blood sugar spikes
- Keep to a minimum your intake of carbs that trigger hunger or cravings, such as foods that of course you probably love, like pasta and bagels
- Take two to three 500 mg calcium pills a day, spaced out during the day
- Take a daily multivitamin with minerals and 400 mcg of folic acid if you are trying to get pregnant
- Drink at least 8 cups of noncaffeinated fluid daily

- Limit foods high in saturated and trans fats
- Select mainly monounsaturated and omega 3 fats

Treating PCOS Through Various Medical Options

Aside from agreeing on exercise, weight, and diet, physicians vary in the treatments that they tend to choose. Among the possible options they may prescribe are the following:

- **Birth control pill**

Women are often prescribed the pill to try to regulate their cycles, but as you know, it does nothing to treat PCOS, itself, which has numerous other issues besides irregular cycles. In addition, the disorder will undoubtedly recur as soon as the woman goes off the pill.

- **d-Chiro-inositol**

This is a naturally occurring substance that increases the action of insulin in patients with PCOS. It has been shown to be effective in improving ovulatory function and decreasing serum androgen concentrations as well as blood pressure.

- **Cyclic progesterone therapy**

One theory is that the lack of progesterone in women who don't ovulate ultimately leads to an imbalance in the ovary, causing excess male hormones and irregular periods. In addition, the constant estrogen without progesterone after ovulation increases the risk of endometrial cancer. So treating women cyclically with progesterone acts to counter the unopposed estrogen that women with PCOS have.

- **Metformin (Glucophage)**

This is a drug that is normally given to diabetics to treat high blood sugar, but it's often prescribed to women with PCOS because they

have a similar issue related to insulin resistance.

- **Ovarian drilling**

This procedure uses a laser fiber or electro-surgical needle to puncture the ovary up to about 10 times, usually resulting in a dramatic lowering of male hormones within days. It's especially useful for women who fail to ovulate with Clomid or Metformin therapy. Side effects are rare, but may include adhesion formation or ovarian failure if there are complications during the procedure.

- **Ovarian wedge resection**

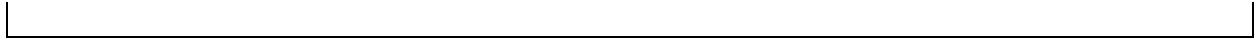
Decades ago, women with PCOS desiring pregnancy were often treated with this seemingly strange surgery. As the name implies, it involves slicing a wedge out of the enlarged, cystic ovary in order to reduce excess androgen production. It had a high success rate for pregnancy achievement, but it often resulted in adhesions and thus was abandoned as a common treatment once modern fertility drugs and IVF became widely used.

Today, however, there is a small group of highly trained physicians who have improved upon the original surgery to such an extent that it rarely causes scarring anymore. It's therefore a potential option you might want to investigate, since when performed well, the procedure doesn't just help with getting pregnant but may also significantly lessen the numerous bodily symptoms and risks of PCOS itself. ([Click here](#), regarding which surgeons are trained in this procedure, as well as more general information on how to handle PCOS when trying to conceive.)

- **A special protocol for getting pregnant**

If you are trying to get pregnant, find a doctor who is experienced in working with women with PCOS, since your condition will probably be handled differently. See the gray box [here](#).

For more on PCOS, [click here](#).



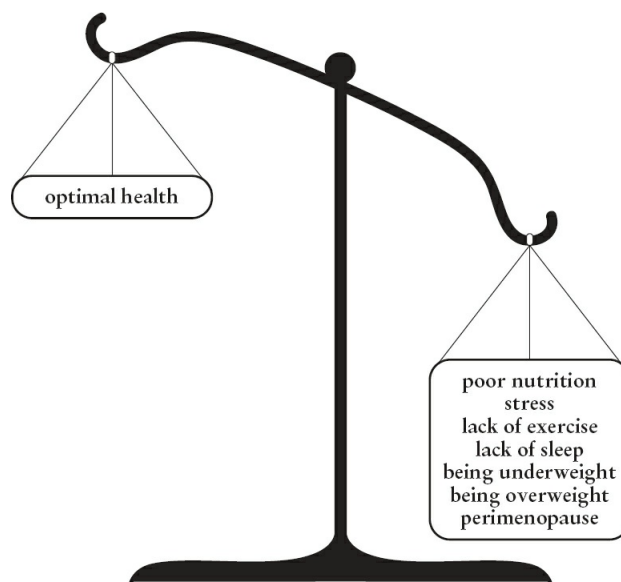
Natural Ways to Balance Your Hormones

WOMEN WHO MAY BENEFIT FROM READING THIS CHAPTER INCLUDE THOSE WHO:

- don't ovulate
- have irregular cycles
- have short luteal phases
- have limited or no cervical fluid
- have hormonal conditions such as PMS, PCOS, or endometriosis
- have been trying to get pregnant for at least six months
- have had at least one miscarriage
- are significantly underweight or overweight
- are coming off the pill or other hormones
- are chocolate cake fans (just testing to see if you're paying attention)
- are in their mid-30s or older and may be using assisted reproductive technologies to try to get pregnant but who still want to be able to get in the best shape possible to sustain a pregnancy

If we all lived in a mystical Shangri-La with beautiful fruits and vegetables magically sprouting from our pristine gardens, where life was carefree with no financial worries or family drama, where we got a full eight hours of rejuvenating sleep a night and had unlimited time and energy to take Zumba classes and bicycle around gorgeous lakes under crystal clear skies, and our skin and lips never touched a single man-made chemical as we maintained an ideal body weight, then maybe this chapter would be irrelevant. But, alas, in the real world, your fertility cycle is an intricate feedback system affected by numerous external factors that can throw you off balance. This is why your cycles often reflect not only your fertility, but your general health, as well.

So if you experience any of the issues in the box on the opposite page, or other symptoms such as mood swings, insomnia, or those often associated with menopause (hot flashes, night sweats, and vaginal dryness), your hormones may be out of balance.



There are basically two ways in which you can balance your hormones naturally. The first is strictly through your own efforts, and the second is through the guidance of any number of natural health-care providers. Regardless, the best way to think of the process is that you are actively *nurturing* your body, rather than depriving it.

It may seem like playing semantic games, but the brain is a powerful tool. So try to think about how much you are nourishing your body with, for

example, fresh fruits and vegetables, rather than how much you are depriving yourself by not eating chocolate cake. Oh heck, who am I kidding? It may prove tough, but the rewards, especially for those trying to get pregnant, will more than compensate for any sense of deprivation.

Making Healthy Changes on Your Own

Many of the suggestions below are an overview of the types of things that you can often do, without so much as stepping into a clinic.

Herbal supplements

Of all of the herbs that are now widely used for women's hormonal issues, perhaps none is as enthusiastically regarded as vitex.* It's a complex herb that is often considered the most important natural aid in treating conditions associated with hormonal imbalance, from PMS to perimenopause and everything in between. The reason it is believed to be so effective is that it specifically acts on the trifecta of women's bodies: the hormonal loop between the hypothalamus, pituitary, and ovaries. In fact, recommending vitex is now relatively standard practice among most natural medicine practitioners.

There are several scientific studies that support its use and safety in treating many hormonal conditions, though unfortunately, there haven't been as many studies done for vitex or herbs in general as there are for traditional drugs. This is in part because it's so expensive to complete clinical studies, and also because there's little incentive for manufacturers of herbal supplements to invest in research, since their products can rarely be patented. You should also be aware that the FDA doesn't regulate herbs, and thus consumers should use such remedies with caution.

I encourage you to initially use them with the guidance of an experienced practitioner in the field. This is in part because there are so many varieties of herbs (and often aggressively marketed!), but they can only be safe and effective if the correct herb and dosage are appropriately selected for the specific condition that you're trying to remedy. Regardless, there are also various websites devoted to this topic, so there is plenty of detailed information out there. I would stick to websites that employ doctors, nurses,

nutritionists, or other reputable women's health practitioners (I recommend a couple relevant ones [here](#)).

Diet

One of the most important studies in this field is the landmark 1990s Harvard Nurses' Health Study, which followed 18,000 women's diets over eight years to determine which foods improved their fertility. And even if you are not currently trying to get pregnant, if your cycles are in any way irregular, the recommendations below may apply to you, as well. The one exception is women with PCOS, who typically benefit the most from very specific guidelines discussed in the prior chapter. Based on their findings, Harvard researchers developed a list of evidence-based suggestions, all discussed in detail in their 2009 book, *The Fertility Diet*. Below is a synopsis of some of their discoveries:

Avoid trans fats. Read your labels! Another name for trans fats is "partially hydrogenated oils." This type of fat can compromise fertility in general, to say nothing of damaging your heart and blood vessels.

Use more unsaturated vegetable oils. Monounsaturated and polyunsaturated fats help improve the body's sensitivity to insulin and decrease inflammation, two things that are good for fertility. Enjoy nuts, seeds, and cold-water fish such as salmon and sardines. And, of course, decrease saturated fats.

Increase vegetable protein. Try to replace a serving of meat each day with a variety of vegetable proteins such as beans, peas, soybeans, tofu, and nuts.

Choose slowly digested carbs. Foods such as fresh fruits and vegetables, whole grains, and beans are all rich in fiber and can improve your fertility by controlling blood sugar and insulin levels.

Get plenty of iron from plants. This includes whole-grain cereals as well as spinach, tomatoes, beets, beans, and pumpkin.

Drink a lot of water to stay hydrated. You don't need to avoid everything else, and even coffee and tea are fine in moderation. But skip sugary sodas when you are trying to conceive.

Take a multivitamin. If you are trying to get pregnant, be sure to take at least 400 micrograms a day of folic acid to help prevent spinal cord defects in the baby.

Achieving an Ideal Body Fat Ratio

The best range for healthy ovulation is a body mass index (BMI) of 20 to 24. Being overweight can cause you to produce extra estrogen, wreaking havoc on your complex hormonal feedback system. But being underweight can cause you to stop ovulating altogether.

Exercise

Do whatever makes you want to exercise, whether it's swimming, bicycling, or anything else that doesn't feel like a chore. The key is to find something that you will look forward to rather than resenting. So, a daily 15-lap jog around an indoor track? Not so much.

Stress Reduction

In keeping with the theme of nurturing rather than depriving, one of the best things you can do when trying to balance your hormones is the novel idea of pampering yourself. That means, among other things, reducing stress through activities that you love rather than just doing what society deems relaxing. So if yoga or meditation is your idea of an excruciatingly slow death by boredom, try hiking, reading a wonderful novel, or soaking in a hot bubble bath.

Sleep

Get at least 8 hours of sleep! If that means TIVOing Jimmy Fallon and watching him the next morning on your stationary bike, so much the better.

Night Lighting

What's the difference between women who wake up to use the bathroom and then run into furniture in the darkness versus those who can practically

read the minuscule warning labels on prescription bottles due to all the extraneous light in their bedrooms? The quality of their cycles, of course! As it turns out, small amounts of light from such seemingly innocuous sources as the moon, a night-light, or even a digital clock passes through our eyelids while we sleep, and this is picked up by the pineal gland.

The problem is that this gland produces melatonin, which directly affects the hypothalamus, which as you know, is the center of a woman's universe. So if you are having problems with your cycles, ranging from irregularity to short luteal phases, you may want to try completely removing any source of light. (This might involve having to use blackout shades to block outside light.)*

Avoiding Hormone Disruptors

Unless you live in a cave, it's pretty unlikely that you will be able to completely avoid hormone disruptors called xenohormones, which are man-made chemicals that have the ability to, well, disrupt your hormones! Among the most ubiquitous and potentially harmful are a type of preservative called parabens, which are found in everyday products such as makeup and shampoos as well as foods and beverages. Another type of chemical compound implicated in endocrine disruption is phthalates, which are frequently found in flexible plastic.

If possible, try to find replacement products that do not contain these chemicals so that you can keep them out of your medicine cabinet and kitchen. And for a more comprehensive (and perhaps intimidating) list of xenohormones, just google them. You obviously can't avoid them all, but you may want to try to focus on those that you can keep out of your own home with a little effort.

Dealing with Thyroid Disorders

The thyroid is one of the most important glands to control bodily functions. Having a thyroid that isn't functioning optimally can wreak havoc on a woman's cycles and general health. Luckily, women who chart have an advantage over others in that they can often spot a potential problem by merely observing the pattern of their waking temps.

Excessively low temps (in the 96s and low 97s preovulatory) are often the first clue that they may have hypothyroidism, but temps alone are not

enough. If you notice low temps with any of the other symptoms listed below, you should ask to have a thyroid blood test that measures not only TSH and T4, but free T3, free T4, and TPO. In the case of the latter three, you may need to be more assertive, because they are often not tested as part of a routine blood work panel.

Among the most common symptoms of a thyroid disorder are the following:

- Anovulation
- Long or irregular cycles
- Prolonged, less-fertile-quality cervical fluid
- Short luteal phases or other signs of luteal phase issues
- Heavy, prolonged, or painful menses
- Low libido
- PMS
- Infertility

A lot of the lifestyle and nutritional suggestions in this chapter can help you achieve better thyroid functioning. As Dr. Datis Kharrazian, author of *Why Do I Still Have Thyroid Symptoms When My Labs Are Normal?* so aptly asks: “If the check-engine light on your car lights up, which would be smarter: to investigate the engine or remove the light?”

Luteal Phase Problems

As you’ve read, the luteal phase following ovulation is when progesterone is released. Whether you are trying to avoid or get pregnant (or just going about your life!), ideally you want it to be about 12 to 16 days. For pregnancy avoiders, this will give you more time to enjoy your infertile phase, and for pregnancy achievers, it’s crucial for the fertilized egg to have enough time to implant in the uterus.

If you discover through charting that you do in fact have too short a luteal phase, there are a few natural treatments you might try. Marilyn Shannon, author of *Fertility, Cycles, and Nutrition*, is a major authority in the field and believes that luteal phase deficiencies are intricately related to PMS. She therefore suggests the supplement Optivite PMT or ProCycle PMS along with an increased consumption of flax oil and/or fish oil. You can also

consider herbal supplements covered earlier in this chapter. If these fairly simple suggestions are not effective, I discuss other options in [Chapter 14](#).

Working with a Complementary Health Practitioner

It used to be that any health practitioners who weren't trained in traditional medical schools were referred to as "alternative" and were thought to be practicing voodoo science. Today, though, there's a more positive acceptance of licensed complementary health practitioners, in part because so many people report such positive results. They either work independently, in a clinic with other natural health practitioners, or side by side with conventional doctors using either complementary or integrative approaches.

Regardless, traditional Western medicine alone is not necessarily the most effective modality for all health conditions. In the case of balancing women's hormones, the most appropriate specialists to consult with first might be nutritionists (really considered mainstream today) as well as complementary practitioners such as naturopaths, acupuncturists, Chinese herbal medicine specialists, and even traditional doctors who also practice more natural modalities. The basic principle that applies to all of these approaches is that it is often preferable to use gentle but effective ways of treating women's health conditions without having to rely on invasive procedures and powerful drugs that cause numerous side effects.

Most of these practitioners will work with various treatments, from bioidentical hormones and herbal supplements to hands-on therapies such as acupuncture. Each woman has a unique set of circumstances that will determine what is best for her (for example, a woman with PCOS will be best treated by following certain protocols in diet and lifestyle that may be very different from a woman who is dealing with PMS). However, depending on your situation, I would encourage you to more thoroughly explore this topic on your own, since so much of your fertility and general health can be adversely impacted by being hormonally out of kilter.

Bioidentical hormones

Many clinicians believe the key to hormone balancing is the use of truly

natural, or bioidentical, hormones, as opposed to the synthetic types manufactured by pharmaceutical companies in a lab. These bioidenticals are extracted from plant sources such as soy and wild yams, but they are exactly the same in molecular structure as the progesterones and estrogens that are made in female bodies.

They are available in many forms, including pills, patches, and various vaginal creams, and there are also custom blends of estrogen and progesterone that are produced by various compounding pharmacies. And even though both bioidentical and synthetic hormone therapies are associated with the treatment of menopausal symptoms such as vaginal dryness and hot flashes, younger women can also benefit from hormones if they have irregular cycles, few or no periods, or other signs of a hormonal imbalance.

You should be aware, though, that hormonal therapy of any kind is an incredibly complicated topic, and while it's true that many physicians and others claim that bioidentical hormones are more effective, safer, and have much fewer side effects than the synthetic versions, all of these assertions are widely disputed by others in the medical community. In any case, if this is an option that attracts you, you should know that even those who swear by bioidenticals will tell you that if you want to try using them to optimize your own hormonal balance, you will need to work closely with your doctor or other medical professional in order to both carefully analyze your needs and individualize your treatment.

Gently First: The Best Way to Get in Balance

If you're one of the lucky ones for whom this chapter is irrelevant—great! But for everyone else, you should simply be aware that before resorting to any intensive medical procedures, you can try many simple, inexpensive, and noninvasive options to balance your hormones naturally. This shouldn't be surprising, since the key to *all* healthy living is largely based in eating a nutrient-rich whole food diet, exercising consistently, maintaining a good weight, and effectively managing your stress. Indeed, the real take-home message of this chapter is that healthy hormonal balance is a reflection of a woman's overall health, and not just about her fertility. As such, you should always try to promote and maintain a healthy lifestyle by doing what you

reasonably can on your own.

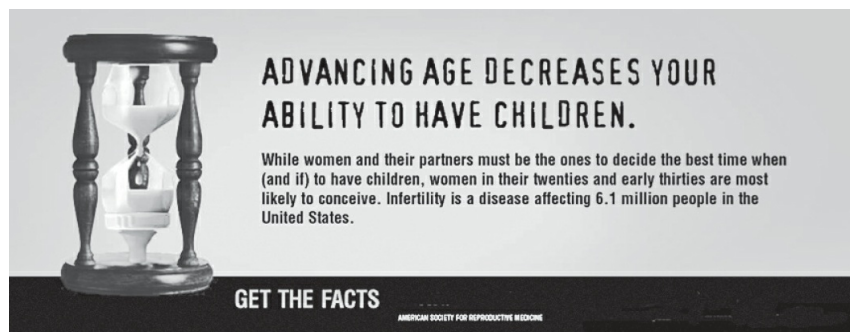


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Now That You Know: Preserving Your Future Fertility

An unfortunate reality of life is that as women grow older, their fertility declines. And yet, with the latest advances in egg-freezing technologies, younger women now have the potential to mitigate the effects of nature. Of course, this is an ethical minefield, but because this book is about knowledge and empowerment, I'd be remiss if I didn't discuss the latest developments. As with everything in life, you should take what is applicable to yourself, and ignore the rest.

Back in 2006, a national ad campaign caused a huge controversy when the American Society for Reproductive Medicine plastered buses and billboards with this ominous message:



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I remember cringing at the time, because I knew it would strike a truly

offensive chord among so many women. And of course it did. Many criticized the ad for being incredibly patronizing and melodramatic. Clearly, women had enough issues to contend with, and they didn't appreciate the implied message that there was something wrong with them if they hadn't met the right person yet, or for that matter, simply wanted to devote more time to their education and career before starting a family.

I got it. And yet, as a professional in the field, I couldn't deny what the ad was saying. Female fertility does gradually diminish from the late 20s until about age 37, after which it begins to drop dramatically. In addition, the risk of miscarriage increases significantly as women age into their early 40s. This means that while I strongly believe in encouraging young women to pursue their dreams before settling down, I also know that biology dictates a woman's range of fertile years, and therefore her possible options.

So, as intriguing as they are, try to ignore the scores of obnoxious headlines that scream out to you from the covers of all the grocery store tabloids:

“48-Year-Old Actress Expecting First Child!”

“45-Year-Old Academy-Award Winner Pregnant with Twins.”

What you likely won't read are the details of the grueling high-tech hoops that these women often had to jump through to achieve their dreams, or, frequently, the fact that they had to use donor eggs in order to conceive. Of course, now that you know how to observe and chart your fertility signs, you'll be able to use effective natural birth control until you one day decide that you want to maximize your odds of conceiving. Still, even though FAM is an incredibly empowering body of knowledge, you need to understand that if you decide to delay having children until your late 30s or beyond, you may still have challenges conceiving or carrying a baby to term, regardless of how much you exercise, how well you eat, or even how well you chart your cycles.

This is in large part because women are born with all the eggs they will ever have. And thus, not surprisingly, some of the most significant issues for older women trying to conceive a child is that the older your eggs are, the greater the chance you'll have fertility issues that FAM alone may not be able

to resolve.

That is why I've chosen to briefly and separately discuss here the various fertility-maintaining tactics, procedures, and technologies that those of you who are still in your 20s and early 30s might want to consider employing now, for your future fertility. For the reality is that no matter how young you are or how you want to use FAM today, women who might eventually want to have children should be aware of the basic dilemma posed by aging eggs and, more importantly, what they might be able to do about it while they're still young enough.

Current Strategies and Concerns for Future Moms

The good news is that you can be proactive in preserving your fertility years before you would ever consider having a child, and in a way that maximizes your odds of being able to do so while still using your own eggs. Indeed, there are numerous ways you can keep the odds in your favor, starting as early as your mid-20s.

The first thing you might want to do is ask your mother when she went through menopause, because that age can be genetically influenced. So, if she experienced menopause as early as 45 or even 40, you may be more likely to do so, as well. Regardless, you should be aware that your fertility starts to significantly diminish about 13 years before your final period.

You might also consider being proactive by getting tested for the medical conditions listed below if you have any relevant symptoms. This is because if you did have any of them, you could work to get them under control before trying to get pregnant.

Endometriosis

As you saw in [Chapter 8](#), endometriosis is a riddle wrapped in an enigma. Because it tends to get worse as women get older, and because one of the only effective (albeit temporary) treatments for it is pregnancy, I would suggest that if you have already been diagnosed with it, and you are already married or in a stable relationship and debating when to have children, you should consider trying sooner rather than later.

Polycystic Ovarian Syndrome

As also discussed in [Chapter 8](#), this is one of the most common and serious conditions that can compromise fertility. But, unlike endometriosis, there are a lot of things that you can actively do to lessen its impact on both your health and fertility. And while it will admittedly take a lot of work to prompt your body to start ovulating on its own, if you can do so, you may want to take advantage of the new freezing technologies available to ensure your fertility when you are older.

Thyroid Issues

Consider having your thyroid tested periodically, because it, too, is a common problem for women of reproductive age, as discussed [here](#). And luckily, it's much easier to treat than either of the two above.

Fragile X (FMR1)

This is a gene that in recent years has been found to play a very important role in ovarian function. Women with it may be prone to primary ovarian insufficiency, as discussed [here](#).

Fertility Testing When It's Most Useful

All women who think that they might want to eventually have children should at least consider having their ovarian reserve checked, as discussed [here](#). This basically tests the number of viable eggs in your ovary available until menopause. However, by the time most women typically get these tests in their late 30s or early 40s, it's too late to be of practical benefit. Fortunately, though, there are currently two tests that are particularly suitable for younger women, both discussed below.

The Antimullerian Hormone (AMH) Test

This is a hormone secreted by the immature resting preantral follicles. The level reflects the size of the remaining egg supply and decreases as a woman ages, so the higher the number, the better.

Antral Follicle Count

This test utilizes a vaginal ultrasound to determine the number of immature follicles available to be stimulated to release an egg each cycle. It will give you a better idea of how many viable eggs you will have left in the years ahead. If the results indicate that the quantity may be limited (especially due to premature ovarian aging), you can at least make an informed decision about how to move forward with this amazingly useful knowledge, whether that entails choosing to focus more on meeting a partner, postponing a career until after you've given birth, or even freezing your eggs now to be able to implant them later. The point is that you'll be able to make an informed decision years before you would normally discover any potential problem.

Below is an example of the type of information you can glean through an antral follicle count, but each lab may interpret the numbers a little differently.

Number of antral follicles available each cycle	Years of fertility left
20 to 40	10 to 15 years
10	Very few
5	Not likely to be able to get pregnant

In addition to the tests and procedures mentioned above, there are two important ways to maximize your odds of avoiding infertility issues later:

- If possible, avoid any surgery on your ovaries, since your mature eggs reside on their surface, and surgery usually results in scar tissue or adhesions that can directly impact your fertility. (For more information on ovarian surgery, [click here](#).)
- Practice safe sex! Even STIs without any symptoms can lead to compromised fertility, especially scarring of the fallopian tubes.

Egg Freezing and Related Technologies

Finally, every young woman who thinks she might delay having children until her mid-30s or older should at least be aware of the developing technologies of egg freezing. The fact is that until fairly recently, it was only

men who could preserve their future fertility by freezing their sperm (which is ironic, since unlike women, most men who haven't had radiation or other cancer-related treatments remain fertile until the day they die). Yet, with the advent of promising new research, women may be able to bear their own biological children through their 40s—by freezing their own eggs while still in their late 20s or early 30s.



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The process of freezing eggs (called oocyte cryopreservation) is no longer considered experimental by the American Society for Reproductive Medicine. You should be aware, however, that IVF success rates using frozen eggs are still quite low, though advances continue to be made and the technology will continue to improve in the years ahead. Indeed, there have already been many successful births, but there are still no extensive long-term studies assessing the safety of egg freezing on the children conceived through this process. So be sure to stay current on the latest advances, and if you do decide to freeze your eggs, try to research the most up-to-date studies before you use them when you are older.

Also note that if you are already married or in a committed relationship, but for whatever reason are not likely to attempt pregnancy for several years, you would be better off freezing *embryos* with your partner's sperm. This is because this technology still has a much higher pregnancy rate with IVF, and it has been proven completely safe through decades of healthy offspring.

Finally, there is a lot of work being done on the preservation of both mature and primordial follicles within various parts of the ovary, as well as on the entire ovary itself. One day, it may actually be common to remove an ovary, freeze it, and return it to the woman's body when she's finally ready to conceive!

Indeed, every aspect of the ovary and eggs is being explored for the

possibility of freezing for future fertility preservation, yet, as mentioned earlier, the only one that is no longer considered experimental is the freezing of the mature eggs themselves. Still, if you are a young woman who would like to put off childbirth while still hoping to eventually have children, you owe it to yourself to keep apprised of these amazing and rapidly evolving technologies.

Keeping Options Open

As you already know, the decision to freeze your eggs or embryos is extremely personal and should not be taken lightly. Some of you may have religious or ethical reasons not to, while many medical facilities still consider such procedures only appropriate for women who have a medical need to take advantage of the technology. In addition, and like IVF, such a procedure is incredibly invasive and it could be prohibitively expensive—around \$8,000 to \$12,000, not including the annual cost for storage. For most of you, this might be money you decide would be better spent adopting a child one day if you are unable to conceive.

However, I suspect there will be some among you who have no philosophical objections to this technology, and who will eventually want to have your own biological children. And for you, freezing your own eggs could be one of the best decisions you ever make.

PART  FOUR

*N*ATURAL
BIRTH CONTROL

Natural Birth Control Without Chemicals or Devices

Please note: Before you use Fertility Awareness as a method of birth control, you need to take the appropriate precautions needed to eliminate the risk of AIDS and other sexually transmitted infections (STIs). In particular, I must state what I hope is obvious: As a form of contraception, Fertility Awareness should only be used by those women involved in a monogamous relationship in which neither partner has an STI.

Contraceptives should be used on every conceivable occasion.

—SPIKE MILLIGAN

There are certain clients I will never forget. One particular couple was given my seminar on natural birth control as a wedding gift by the woman's parents. Although they seemed thoroughly absorbed in the class, I was soon to discover that they had failed to internalize the most fundamental concept of the method. A month after the seminar, I met with them for their follow-up consultation. Everything seemed to go just fine. Her charts looked great. She recorded her fertility signs

perfectly.

But I noticed that even though they had had intercourse throughout her cycle, they didn't record what method of birth control they used in the Birth Control Method column of the chart. In other words, they didn't record whether they used condoms or a diaphragm, for example, during her fertile phase. So, as they were getting up to leave, I casually reminded them to be sure to record what contraceptive they use every time they have intercourse during her fertile phase. She gave me a completely puzzled look, quizzically glanced at her husband, then looked back toward me with a blank stare.

Silence.

I said, "In other words, every time you have intercourse, just be sure to record whether you specifically chose not to use birth control because you were infertile at the time, or record what method you used while you were fertile." Again, the glazed-over look.

And again, more silence.

*"What do you mean, 'What method'? I thought **this** was a method of birth control." The hair stood up on my arms. It was only then that I realized that this couple actually thought that by merely recording her fertility signs, they were using a reliable method of birth control!*

Needless to say, the Fertility Awareness Method is most effective as a contraceptive if you abstain during your fertile phase. If you would rather not postpone intercourse, you can use a barrier method, though you should be aware of the following:

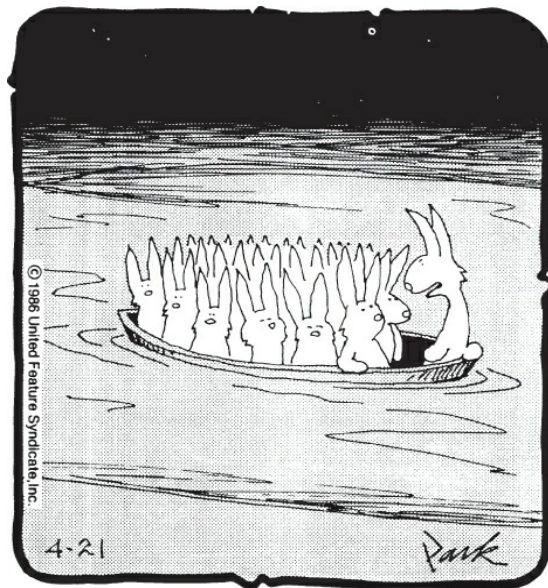
1. If a barrier method is going to fail, it's going to fail when you're in your fertile phase. And all contraceptives have a failure rate.
2. If you would still like to use a barrier, you can dramatically increase the effectiveness rate by using two methods simultaneously, such as a condom with a diaphragm, sponge, or spermicide.

3. Using barriers with spermicide during the fertile phase can mask cervical fluid, so if you would still like to have intercourse during that time, see the rules [here](#).

Ideally, then, the method is most effective when you have intercourse only outside of your fertile phase. And while it may initially seem difficult to do, many users of natural birth control feel that this creates a “dating and honeymoon” effect. In other words, in every cycle there is a phase when the couple finds creative ways to sexually express themselves, knowing that within a week or so, they can resume intercourse again. By choosing to postpone sex rather than using a barrier method during the fertile phase, people often feel they’re living in harmony with their fertility, rather than fighting it.

Much of this is simply learning to understand how your body works. A way to conceptualize the length of a woman’s fertility is to remember that it’s totally dependent on the man’s fertility. In a vacuum, a woman would be fertile only a maximum of 24 hours, or 48 hours if two or more eggs were released at ovulation. But her fertile phase increases with the viability of both sperm and egg. The only reason a woman is fertile for longer than 24 to 48 hours is because sperm can live up to 5 days.

In essence, then, the first part of the woman’s fertile phase is determined by the survival of the sperm and the second part by the viability of the egg. When FAM is used for birth control, this typically adds up to about 10 days (including a buffer on each side), during which abstinence or a barrier method of contraception is necessary. This includes a significant safety margin on each side of the fertile phase.*



“I’m only gonna say this one more time:
Our only chance is self control.”

OFF THE LEASH reprinted by permission of UFS, Inc.

The Fertility Awareness Method is not so much about identifying the day of ovulation as it is about answering one simple question: Am I fertile today? And for those women who are lucky enough to have relatively regular cycles between about 21 to 35 days, the question is simply: When have I entered my fertile phase, and when is it over? Again, this is because in order to use FAM as a method of birth control you don’t need to know the exact day you ovulate.

THE FOUR FAM RULES AT A GLANCE

Preovulatory Infertile Phase	Fertile Phase	Postovulatory Infertile Phase
1) First 5 Days Rule	<i>Abstinence or barriers required!</i>	3) Peak Day Rule
2) Dry Day Rule		4) Thermal Shift Rule

For most women, the cycle can basically be divided into three parts. Note that the four FAM rules identify the beginning and end of the fertile phase, which is the time that unprotected intercourse can result in pregnancy.

What follows are the contraceptive rules for using the Fertility Awareness Method with maximum effectiveness. While they may be a bit tricky to internalize on a first reading, they should become fairly intuitive if you've understood the basic biological principles presented earlier in the book. I suggest you read this section slowly and several times, as well as carefully review all of [Chapter 6](#). It's fairly simple, but as with any new process, it requires a little patience.

To be safe, I also strongly suggest that you *chart at least two or three full cycles before relying on these rules for birth control* (I can hear the groans already). Or, at a minimum, do not consider yourself safe until *after* ovulation, when you know that the egg is dead and gone (by using Rules 3 and 4, described later in the chapter).

This especially applies to women coming off the pill or other hormonal methods, since their bodies may take quite a few months to resume normal ovulatory cycles with clear fertility signs. The peace of mind you'll gain will be more than worth it. And if you still find you need further clarification, I would encourage you to either take a FAM class, or at least do an in-person, phone, or online consultation with a qualified instructor. Finally, a guiding principle is that if you encounter any ambiguity, be conservative. All four rules should indicate that you are infertile before you consider yourself safe. If in *doubt, don't!*

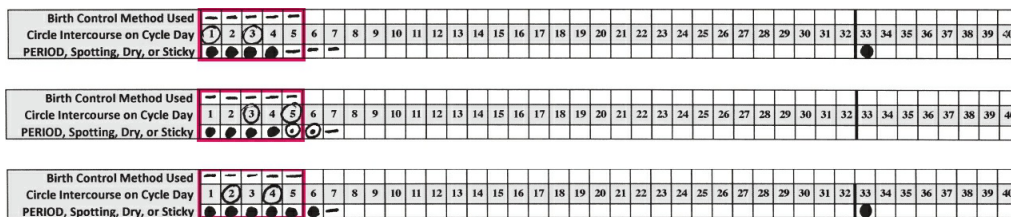
I strongly encourage you to chart both cervical fluid *and* temps, and even the optional cervical position sign, to corroborate your observations—the charting of these three signs is technically referred to as the Sympto-Thermal Method. However, if you only chart one sign, see [Appendix F](#) for a slightly different set of rules.

THE FOUR FAM RULES WHEN CHARTING BOTH CERVICAL FLUID AND TEMPS

Preovulatory Infertile-Phase Rules

1. FIRST 5 DAYS RULE

You are safe the first 5 days of the menstrual cycle *if* you had an obvious thermal shift about 12 to 16 days before.



Flora's chart. The First 5 Days Rule. Flora considers herself safe the first 5 days of her cycle, regardless of how many days of bleeding she has (as seen by three variations of her cycles). In each case, she knows that this really is the beginning of a new cycle and not ovulatory bleeding, since she had a thermal shift a couple weeks before.

The First 5 Days Rule applies to the first 5 days of the cycle, regardless of how many days you actually bleed. But any bleeding *after* the 5th day of the cycle should be considered fertile, since it could mask your ability to check cervical fluid.

By noting an obvious thermal shift 12 to 16 days before you bleed, you have strong evidence that ovulation occurred that previous cycle. This confirms that the bleeding you experience the first 5 days of the new cycle is true menstruation and not ovulatory spotting or unusual bleeding unrelated to menses.

This rule is effective because the combined risk of ovulation occurring on Day 10 or earlier and sperm living long enough to fertilize the egg is, statistically speaking, very rare. Remember, sperm can generally survive a maximum of 5 days, and even that is only in fertile-quality cervical fluid.

Still, the rule should be modified for women who meet any of the following criteria:

1. If any of your last 12 cycles have been 25 days or shorter, you should assume that only the first 3 days are safe. This extra precaution is taken because of the increased risk of a very early ovulation. If cervical fluid were to develop while you were menstruating, you would be unable to detect it through the blood, and thus sperm could theoretically survive the few days necessary to fertilize the egg. There is some disagreement in the FAM community over the necessity of this conservative guideline, but I would personally recommend it.*

2. If you did not have a thermal shift or Peak Day about 12 to 16 days before your period, you should assume that it's probably anovulatory bleeding or something else, and therefore you cannot consider yourself safe!

3. If you are approaching menopause with such signs as hot flashes and vaginal dryness, you should not rely upon this rule at all. This is because premenopausal women are subject to major hormonal changes that could result in dramatically early ovulations, to say nothing of irregular bleeding that may not even be menses (see [Appendix J](#) for how to use the method if you are perimenopausal).

MESS-FREE SEX DURING YOUR PERIOD

One of the ways that you can take full advantage of sex during your period without the requisite mess is to use a menstrual cup or similar product. Of course, if your idea of a good time is scrubbing bloody linens, then by all means, skip the suggestions below.

There are different types of cups that will collect menstrual blood, and most are a wonderful alternative to pads and tampons, regardless of whether or not you use them during sex:

Menstrual cups: There are scores of these ingenious items available today either at drugstores or on the internet, and all are good for collecting blood. Unfortunately, though, they are not designed to be used during intercourse, because they can get in the way or get dislodged and

leak. Still, they are great for sex play because they are made of silicone, so they don't leave you imbued with that lovely scent of discarded rubber tires.

Diaphragms: These must be fitted by a clinician, but they then serve double duty during intercourse, as a contraceptive as well as a collector of blood.

Cervical caps: These must also be fitted by a clinician, though they fit differently than a diaphragm. Some are more comfortable for intercourse than others.

2. DRY DAY RULE

Before ovulation, you are safe the evening of every dry day. But the next day is considered potentially fertile if there is residual semen that could be masking your cervical fluid.

Birth Control Method Used	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
Circle Intercourse on Cycle Day					○	○																																							
Eggwhite Creamy																																													
PERIOD, Spotting, Dry, or Sticky	●	●	●	●																																									
Fertile Phase and PEAK DAY																																													
VAGINAL SENSATION					dry	"	"	"	"	"	"	"	sticky	"	"	wet	"	lube	lube	lube	dry	"																							

Erika's chart. Dry Day Rule. Note that Erika is safe the evening of every preovulatory dry day, which in this chart occurs on Days 5 to 12.

1. Before ovulation, you are safe for unprotected intercourse the evening of every dry day (after 6:00 p.m.).* Dryness is determined by checking throughout the day and observing that no bleeding cervical fluid or wetness is present at any point. But as soon as you observe your Point of Change, even if it is a *sticky- or nonwet-quality* cervical fluid, you must consider yourself potentially fertile.

It may surprise you that you must view this type of cervical fluid as potentially fertile before ovulation. It's true that it's very difficult for sperm to survive in it. However, the rules are extremely conservative, and take into consideration the fact that a woman may not be able to differentiate between sticky cervical fluid and the beginning phases of the wetter quality.

In addition, this eliminates the risk of wetter fluid trickling down from the cervix in time to save the few hearty sperm that may have survived. But if you only experience one or two consecutive days of sticky cervical fluid and then revert back to dry days, you are considered safe again the evenings of each dry day.

To reiterate, then, before ovulation, the only days considered safe are the evenings of those dry days in which there is no cervical fluid present on the tissue when you wipe from front to back. (Note that women will always have a slight dampness or moistness at the vaginal opening, which quickly dissipates from the finger. These days are still considered dry if you have no cervical fluid.)

2. The day after intercourse is marked with a question mark if semen or spermicide is present, because they can mask the presence of cervical fluid. The evening of a Semen Day is considered fertile since there is no way to prove that such a day is indeed dry. For recording semen, see Mikaela’s chart below. Better yet, for an efficient way to eliminate semen, refer back to [SETs](#).

Birth Control Method Used	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
Circle Intercourse on Cycle Day					1		1		1		1																																		
Eggwhite																																													
Creamy																																													
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	?	?	?	?	?	?	?	?																																	
Fertile Phase and PEAK DAY																																													
VAGINAL SENSATION					dry	dry	dry	dry	dry	dry	dry	dry	sticky	u	u	wet	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	u	

Michelle’s chart. When semen masks cervical fluid. Note that Michelle is safe on the evenings of preovulatory dry days, but any day with residual semen must be recorded with a question mark, as she did on Days 6, 8, 10, and 12. These days are considered potentially fertile.

If, by the end of the day after intercourse, you are dry all day, you are safe for unprotected intercourse again that evening. There are two reasons why you can have peace of mind using the Dry Day Rule before ovulation:

- a. Sperm can’t survive if there’s no cervical fluid present to sustain them. At longest, they will live a few hours. And because the sticky-quality cervical fluid that develops before wetter types is just about as inhospitable to sperm as a completely dry vaginal environment, the risk of conception is low.
- b. If you don’t have cervical fluid, it’s an indication that your ovaries are inactive and your estrogen levels are so low that

you're not near ovulation. Remember that ovulation is preceded by a buildup of wet-quality cervical fluid.

The above two reasons should reduce fears that you might have regarding the issue of sperm surviving long enough for an egg to be released. To exaggerate the point, even if sperm could live 10 days in ideal conditions and ovulation occurred the day after intercourse, it's extremely unlikely you would get pregnant if your lovemaking was on a dry day. Of course, this scenario would never happen, but I want to stress the concept that sperm need fertile cervical fluid in order to survive and move.

Finally, you should realize that because sperm can survive up to 5 days if fertile-quality cervical fluid is present, you absolutely cannot rely on ovulation predictor kits, which give only about one day's warning of impending ovulation. And just for the record—no, arousal fluid and lubricants don't provide the necessary environment for sperm survival.

3. After a couple of cycles of charting, you may notice that immediately after your period ends, you don't have any dry days. Rather, you have a sticky- or even gummy-quality cervical fluid that starts just after menstruation and continues day after day until you see the change into a wetter quality. Since this could be an indication of cervical inflammation, you should probably have it checked when you first start charting. But, assuming you are healthy, this just means that your Basic Infertile Pattern (BIP) during your infertile phase is sticky rather than dry, as was briefly discussed [here](#).

If you do indeed have this postmenstrual BIP immediately following your period, you may still be able to apply the Dry Day Rule on those days of sticky cervical fluid, treating the sticky days as if they were dry. Of course, the first sign of *wet* cervical fluid is your Point of Change and is now considered fertile.

This exception, though, applies only to those who never experience dry days pre-ovulation. And even then, you should be aware that you are taking a somewhat increased risk in following this modified guideline. Because of this, I suggest that you do not use this modified rule if you've had cycles of 25 days or less in the last year, and if you do use it, verify that there is no wet cervical fluid at your cervix before having intercourse. (See [Appendix G](#) as well as Ashley's chart below.)

each day. You will know it was the Peak only the following day, when your cervical fluid and lubricative vaginal sensation have already started to dry up.

If your last day of slippery eggwhite is on a Monday, but you still have one more day of lubricative vaginal *sensation* (or spotting) on Tuesday, your Peak Day is Tuesday!

2. You are considered safe after 6 o'clock on the evening of the 3rd consecutive day following the Peak Day. Draw a vertical line between Days 2 and 3 to indicate that you are safe from the 3rd evening on. (Note that you are still considered infertile even if you have sticky days after you've drawn the vertical line.) Some of you may have noticed that in previous editions of this book, the Peak Day Rule said that you were only safe the evening of the 4th consecutive day after your Peak Day. But I've decided to modify the rule because a consensus has developed that Peak plus 3 can be used without any compromise in contraceptive efficacy as long as it is corroborated by the Thermal Shift Rule [here](#).

3. If you have a cervical fluid pattern in which you have a day of creamy after your last day of slippery eggwhite or vaginal sensation (most women have nothing or sticky), your Peak Day is still considered that last day of eggwhite.

However, if you don't have an obvious thermal shift by the second morning after the last eggwhite day, or your creamy days continue, you should be conservative and consider the last creamy day that you have as your Peak Day.

4. Usually, any wetness will dry up until the next cycle, but if wet cervical fluid or vaginal sensations reappear during the 3-day count, or even later, as in Heather's and Susan's two charts below, wait until the wetness ends to reestablish the Peak Day. Begin the count over again. This type of pattern is sometimes referred to as a "split peak" or "double peak" and is often caused by stress, illness, or PCOS, as discussed [here](#). While these split and double peaks can be confusing, a thermal shift will clarify the picture and allow you to determine whether ovulation has actually occurred. You'll learn about the Thermal Shift Rule on the next page.

order to determine your coverline, you must count back 6 low temps, not including the days eliminated. Also remember to watch for any possible temp rise due to taking readings affected by Daylight Saving Time or travel to another time zone. (For a further discussion on how to handle ambiguous thermal shifts, [click here](#).)

If you notice that your temp has risen either higher than normal or earlier than you would expect, pay close attention and don't assume it's already your thermal shift. Ovulation is virtually always preceded by a buildup of wet cervical fluid and changes in the cervix. If you didn't observe those changes, it's highly unlikely that you've already ovulated.

A Word About Vaginal Infections

Almost all women will experience vaginal infections at some point in their lives. True infections will usually cause symptoms that can mask cervical fluid. For this reason, you should abstain from intercourse during an infection, since the signs may be too ambiguous to be reliable. Regardless, even if the ouch factor doesn't dissuade you, you should abstain anyway to allow your body a chance to heal and to avoid passing the infection back and forth. (For a more detailed description of true vaginal infections, [click here](#).)

A Word About Your Cervical Position

As discussed in [Chapter 6](#), the changes in your cervix can also help you determine if you are fertile. However, it's considered an optional sign since it's generally used only to corroborate the changes in cervical fluid and temps. For this reason, I don't present specific rules about the changes in your cervix, but if you do observe it as one of your fertility signs, it should be firm, closed, and low before you consider yourself safe.

A Word of Caution About Ovulation Predictor Kits and Other Fertility Monitoring Devices

With the continuing proliferation of ovulation predictor kits and related

devices that are designed to interpret your fertility signs, you may be tempted to rely solely on them as a form of birth control. Don't! The kits are designed for women trying to get pregnant, and reflect when ovulation is imminent, but generally only tell you so a day or 2 beforehand. And since sperm can live for up to 5 days, such technologies have no contraceptive value.

Finally, most of the other devices, such as those fertility monitors that rely on salivary ferning tests, are useful ways to corroborate the information that you have learned in this chapter, but they are simply not reliable enough to use by themselves. I discuss these products more extensively [here](#).

BARRIER METHODS OF BIRTH CONTROL THAT CAN BE USED DURING THE FERTILE PHASE

Because the fertile phase is the only time in the cycle in which you can possibly get pregnant, this is the time when abstinence is necessary if you're determined to avoid a pregnancy. In fact, since you produce slippery cervical fluid during your fertile phase, any barrier that sits over the cervix could get dislodged more easily. Finally, if a condom is going to fail, this is the time it would really matter!

Keep in mind that anytime you use a barrier, you risk masking your cervical fluid, so the next day needs to be marked with a "?" in the Cervical Fluid column.

However, if you would still like the option of having intercourse during those fertile days while maintaining minimal risk, I would at least encourage you to simultaneously use *two* of the following methods, especially during your eggwhite days:

- Condom
- Diaphragm
- Cervical cap
- Contraceptive sponge
- Vaginal spermicide

✿ PUTTING IT ALL TOGETHER

The Peak Day usually occurs one or two days before the thermal shift. Women for whom it typically occurs two days before have an interesting advantage in that cervical fluid often dries up quickly the day after the Peak Day, and thus those women can usually predict their temperature shift the following day.

In addition, note that *before* ovulation, the cervical fluid is the crucial fertility sign to observe, because it's the one that reflects the high estrogen levels indicating the impending release of the egg. But *after* ovulation, the temperature is the most important fertility sign, because it confirms that ovulation has indeed occurred.

The rules that apply post ovulation will often work in harmony with each other, so that the 3rd evening of high temps will coincide with the 3rd evening after the Peak Day. (If it helps, you can remember this as the Rule of the 3s!).

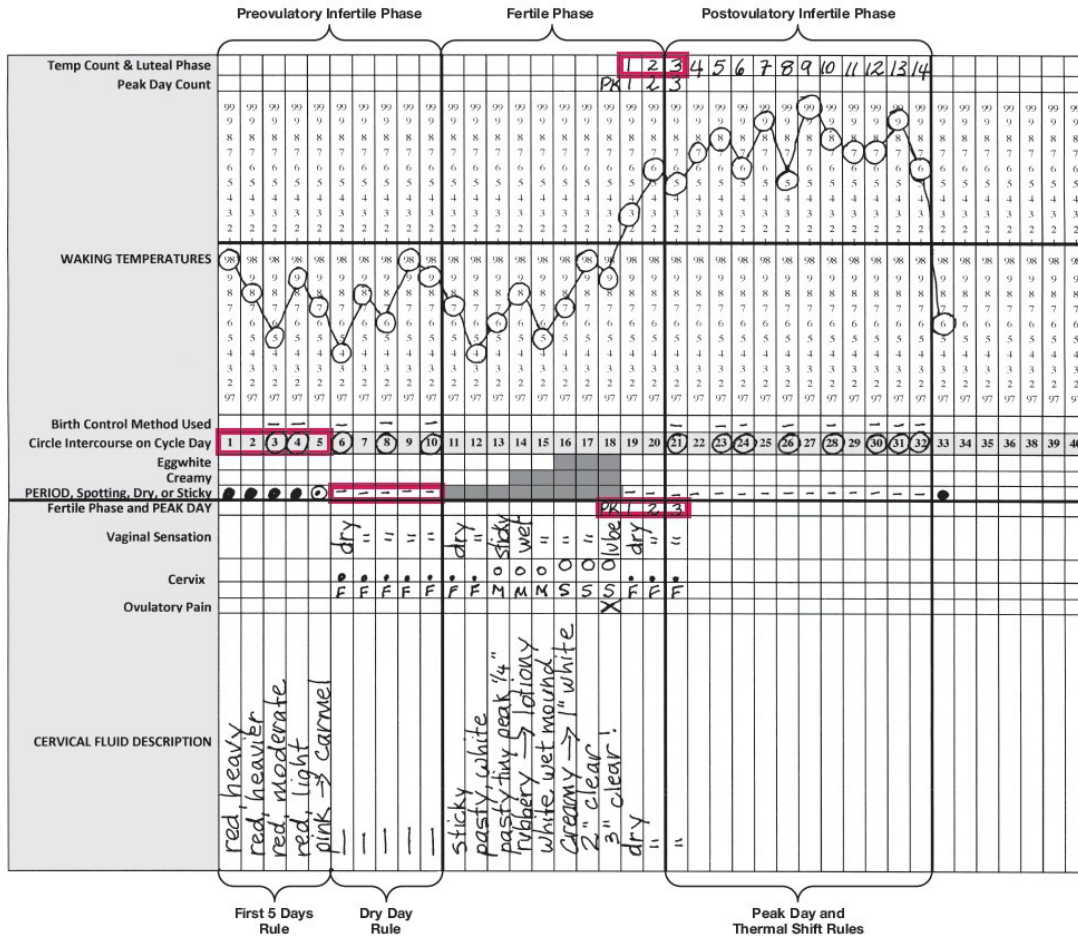
However:

1. If there is a discrepancy between the two postovulatory rules, *always wait until both signs indicate infertility* to be most conservative (i.e., until the evening after the vertical line farthest to the right). This ensures that all the signs have coincided before you consider yourself infertile.
2. If in *doubt, don't take the chance!* If your fertility signs don't make sense in any given cycle, it's not worth risking an unplanned pregnancy.

The rest of this chapter summarizes the rules that you have learned in this chapter, and will show you how they would typically appear on your chart.

NATURAL BIRTH CONTROL AT YOUR FINGERTIPS . . .

The fertile and infertile phases as defined by the four standard FAM rules.



SUMMARY OF THE FOUR FAM RULES

The basic biological principles are italicized below each respective rule.

1. FIRST 5 DAYS RULE

You are safe the first 5 days of the menstrual cycle if you had an obvious thermal shift about 12 to 16 days before.

For most women, the combined risk of ovulation occurring on Day 10 or earlier and sperm living long enough to fertilize the egg is remote.

2. DRY DAY RULE

Before ovulation, you are safe the evening of every dry day. But the next day is considered potentially fertile if there is residual semen that could be masking your cervical fluid.

Sperm cannot survive in a dry vaginal environment, and the lack of cervical fluid indicates that estrogen levels are too low for ovulation to occur.

3. PEAK DAY RULE

You are safe the evening of the 3rd consecutive day after your Peak Day, the last day of eggwhite or lubricative vaginal sensation.

The last day of eggwhite or lubricative vaginal sensation indicates the imminence of ovulation, while allowing 3 days for drying up ensures that any eggs released are already gone, and that the return of a dry vaginal environment is inhospitable to sperm survival.

4. THERMAL SHIFT RULE

You are safe the evening of the 3rd consecutive high temp past your Peak Day, as long as that 3rd temp is at least 3/10ths above the coverline.

The rise in temperature due to the release of progesterone indicates that ovulation has occurred, and waiting 3 days allows for the remote possibility of 2 or more eggs being released over a 24-hour period, with each one living a full day.

A CAUTIONARY NOTE

These rules are a very effective form of contraception if they are consistently and correctly followed. However, you should understand the relative risks of natural birth control, discussed in [Appendix D](#), before relying on what you have learned in these last few pages.

Of course, while this box is a useful summary, you must clearly understand all the guidelines for each rule described in this

chapter before using FAM for birth control. It's also crucial that you don't consider yourself safe unless *all* the rules indicate that you're infertile. If you have any doubts, don't take the risk.

Finally, if you'd like to practice a more conservative version of these rules in order to obtain an even lower risk of pregnancy (by dropping the annual method failure rate from 2% to under 1%), see the note [here](#).

Shortcuts: Minimum Charting with Maximum Reliability

For those of you who just skipped ahead to this page, don't even *think* of using the guidelines in this chapter until you fully understand the rules in [Chapter 11](#) and have already applied them for several cycles!

Although the Fertility Awareness Method is really very simple once you've learned it, even experienced users don't necessarily want to chart every day to achieve maximum reliability. With a little experience under your belt, so to speak, you can limit charting to only about a third of the cycle and still attain all the information necessary to apply this method, without compromising contraceptive efficacy.

The reason you can have peace of mind using the shortcuts explained on these pages is that once you have ovulated, your body won't release an egg again until the following cycle. So once you've identified when the egg is dead and gone, it's unnecessary to continue charting until your next period.

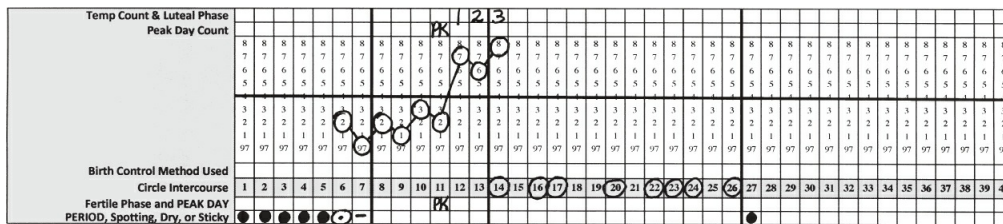
I recommend, though, that you chart without using shortcuts because it's easier to do it every day than to have to think about where you are in your cycle. As you've seen, charting is also about much more than just detecting

when you can and can't get pregnant. And finally, by charting your complete cycle, you will often benefit from one of its most practical aspects: being warned often hours before you get your period by the drop in temps that most women experience on the first day of the flow.

However, if you have at least several months' experience in the standard rules of charting and you would now prefer to take shortcuts, you can use the modified guidelines discussed below. Again, this is because contraceptive efficacy won't be compromised as long as *both* your fertility signs have confirmed that ovulation has already occurred for that particular cycle.

WAKING TEMPERATURE

It's unnecessary to take your temps during your period, since these temps may be somewhat high or erratic anyway. In addition, once you've established the occurrence of a thermal shift by counting at least three high temps above the coverline (with the third temp being at least three-tenths above the coverline), you needn't take them again until your period from the next cycle is over, as seen in the chart below.



Colleen's chart. Temperature Shift Rule with minimal charting. Once Colleen recorded her 3rd high temperature above the coverline by Day 14, she no longer needed to chart her temperature until the next cycle because she already established that ovulation had passed.

✂ THE FALLACY OF THE I-JUST-KNOW-WHEN-I'M-FERTILE MENTALITY

A word of warning about taking shortcuts: Once you decide not to chart every day, it can be very tempting to slack off, either charting less than recommended or stopping altogether, convincing yourself that you just *know* when you're fertile. I cringe when any woman claims this.

Ironically, experienced women who have charted for years are the most common subscribers to that way of thinking. But remember, even if your cycles have always been regular and your charts easy to interpret, there's always the chance that the next cycle will be different from all others. Like any other birth control method that "fails" because of improper use—such as leaving the diaphragm in the drawer—FAM must be used correctly to work.

Simply intuiting when you are or aren't fertile is not a reliable method of birth control. In fact, it's no method at all. You need to chart your temperature and cervical fluid, even if it's for only a third of your cycle. Otherwise, it can be too easy to forget what transpired on any given day. In the end, you may find that charting becomes so ingrained that you won't even be tempted to take the shortcuts described above.

PART  FIVE

*P*REGNANCY
ACHIEVEMENT

Maximizing Your Chances of Getting Pregnant

Literature is mostly about having sex and not much about having children; life's the other way round.

—DAVID LODGE, BRITISH AUTHOR

*I*f you're like most people trying to get pregnant, you probably remember the years of hassling with birth control and all that that entailed—the diaphragms that flew across the room when you attempted to insert them, the condoms that broke at the peak of lovemaking, or the pill that caused your weight to balloon. In fact, you may even have experienced sleepless nights worrying about whether you had accidentally conceived, even though you consistently used birth control.

Yet here you are, years later, perhaps bemoaning the fact that you spent so much time and energy trying to *avoid* pregnancy, only to discover that it might not have been so easy to conceive after all. For some couples, getting pregnant may indeed be difficult. But for many, it can be as simple as learning how to optimize their chances of conception by identifying when your combined fertility is at its greatest. Surprisingly, the odds of a typical couple of proven fertility conceiving in any one menstrual cycle is thought to be no higher than about 25%. And for couples in their mid-30s and older, the chances decrease substantially. But you can increase them dramatically by identifying the optimal time to try.

While most would acknowledge the great benefits derived from advances in medical technology, there are also drawbacks. One is that people are often led to believe that the most efficient and only way they will be able to get pregnant is through invasive procedures. Not only is this often wrong, but it can even be counterproductive. Modern methods can ironically impede or delay the very pregnancy they were designed to aid (for example, as mentioned earlier, Clomid tends to dry up cervical fluid, and artificial insemination may be inappropriately timed). Today there are countless ways to diagnose and treat so-called infertility. But if you think you might be facing a fertility problem, FAM should always be your first step in the pursuit of pregnancy, not your last.

When trying to get pregnant, dispense with all the misinformation that well-meaning friends and clinicians seem to perpetuate. If you've read this book in sequence, and didn't sneak a peek at this chapter first, you should already know that there are a number of truths about fertility that directly contradict the myths you've heard.

One of my couples illustrated the benefit of knowing you are still fertile even though it would appear that you are well beyond the day of ovulation. Carrie and Jake were extremely demoralized when I met them. They had been trying to get pregnant for nearly two years, after the tragic death of their baby. Since they didn't have any trouble conceiving the first time, they were perplexed by why it was taking so long to get pregnant again.

In their particular case, what helped them to conceive after those two years was the realization that if Carrie's temps hadn't shifted yet, they were still considered fertile. She said that she was almost relieved when her temps were still low on Day 22, because it meant they still had an opportunity to get pregnant that cycle. So, rather than feeling anxious, she felt much more in control. They knew to continue having sex each day that she had wet cervical fluid and the temps remained low. They had intercourse and conceived on Day 22. Sure enough, her temp rose the next day, confirming that they had timed it just right.

✿ FERTILITY TRUTHS

1. A normal cycle is not necessarily 28 days; it ranges from about 21 to 35 days. It varies from woman to woman as well as within individual women.
2. You can ovulate as early as Day 8, and as late as Day 20 or beyond. The point is that most women don't necessarily ovulate on Day 14.
3. Your most fertile day cannot be determined by your temps. In fact, most women don't even experience the "temperature dip" that they've often been told to look for.
4. You are usually not most fertile the day of the *rise* in temps, either. In fact, by the time the temperature rises, it's generally too late—the egg is often already gone.
5. The key to identifying your most fertile phase is through cervical fluid, and not waking temps.
6. You don't need to stand on your head for half an hour after making love in order to get pregnant! If you are timing intercourse at the most fertile time, the sperm will rapidly swim up through the cervical fluid, regardless of what position you are in.
7. How often you should have intercourse during your fertile phase (for example, every day or every other day) may be a function of the combination of your partner's sperm count and your cervical fluid. It's not a hard-and-fast rule that applies to all couples alike.
8. Both men and women are equally likely to have a fertility problem.

✿ WHY SOME WOMEN ARE MORE FERTILE THAN OTHERS

Even being armed with accurate knowledge doesn't necessarily guarantee a timely pregnancy. If it's taking longer than you had anticipated, probably the last thing you want to hear are the annoying clichés of young mothers referring to themselves:

“They call me Fertile Myrtle.”

“He just has to look at me and I get pregnant.”

“I've gotten pregnant on every method of birth control [yuck, yuck].”

Actually, there are several reasons why some women do indeed tend to be more fertile than others, but that doesn't diminish the irritation you may rightly feel. In addition to the obvious fact that their reproductive organs are healthy, they may have a long phase of extremely fertile-quality cervical fluid, providing them more opportunities to get pregnant. Also, women with short cycles tend to ovulate more often, which means that they have more fertile days in a given year. But even though these women have a biological head start, you can certainly level the playing field by charting your cycle.

Vanessa and Max were a charming couple who had initially taken my class to avoid pregnancy. After two years of using FAM successfully, they decided it was time to try to get pregnant. But a trip to Mexico delayed their plans by several months while they allowed the malaria medications to dissipate from their bodies. So the first month in which they were able to try was March. Then a little detail looked like it was going to interfere. Max had just had major surgery on a shoulder that had eroded from years of playing basketball. He spent several days in the hospital after the operation.

His first night back home he was in a lot of pain, so he was completely drugged to help him handle it. Vanessa walked in and proudly announced, “Tonight's the night.” The eggwhite was too

obvious to miss. As Max recounted, “Trust me, sex was the furthest thing from my mind. Here I was, with my shoulder and arm taped to my torso to immobilize it, flat on my back, pumped with painkillers, and my wife walks in and says: ‘It’s time. I’m fertile.’ Needless to say, I explained to her that I was hardly in a position to have sex, as it were, when she reminded me that she could take care of everything herself. So with me half out of it, she proceeded to do what was necessary to allow conception to occur. Sure enough, from that one single act of sex that cycle, we conceived our little boy Don.”

You may take a lot longer to get pregnant, of course. The point is that knowing when you are most fertile will expedite the process. If, after 4 to 6 cycles of timing intercourse on your most fertile days, you still haven’t gotten pregnant, you should probably pursue diagnostic testing or fertility treatments. (Some couples may want to get a semen analysis even earlier, given how easy it is to do.) This advice probably goes against the common wisdom you’ve always heard of waiting a year. Remember, that advice is for the average couple who doesn’t chart. If you have been timing sex during your fertile phase, and you know that your partner’s sperm analysis is good, then becoming proactive after 4 to 6 cycles only makes sense.

🌸 A WORD ABOUT OVULATION PREDICTOR KITS (OPKS)

Before getting to the crux of how FAM can help you get pregnant, I want to say a few words about ovulation predictor kits, because many of you will no doubt use them or have already used them. While they can in fact be quite useful, you should know by now that your own body can provide you with as much valuable information as the kits, with less hassle and certainly less cost. Still, if you do choose to use them (either exclusively or with Fertility Awareness), you should be aware that OPKs can be misleading for the following reasons:

1. The kits test only for the occurrence of the luteinizing hormone (LH) surge that precedes ovulation. They don't indicate whether the woman has definitively ovulated afterward. In fact, women may occasionally experience a condition called LUFSS (luteinized unruptured follicle syndrome) in which they have an LH surge but the egg is never actually released from the ovary. This condition is further discussed [here](#).

2. A woman could miss her LH surge if she is one of those who have surges that last less than 10 hours and she only checks once a day. She could also miss it if she is one of the significant number of women who peak below the threshold that the kits actually test.

3. A woman may experience false LH surges in which she has mini-peaks of LH before the real one, causing her to potentially time intercourse too early for the sperm to survive long enough for the release of the egg. In addition, if the woman has PCOS, her body may continually produce misleading LH surges, not indicative of a true impending ovulation.

4. The kit does not indicate whether the woman has suitable cervical fluid to allow sperm a medium in which to travel to the egg. In addition, by the time the kit does show a surge, the cervical fluid may already be starting to dry up.

5. Their accuracy can be compromised if exposed to excessive heat during delivery and storage.

6. The kits are accurate only if they test a woman's fertility right around the time of ovulation. This is a very significant point, because often the type of woman who purchases them is one who, by definition, has irregular cycles. Therefore, the typical kit, which has only 5 to 9 days' worth of tests, will often not have enough to cover the range necessary for her to determine ovulation.

For example, if Bailey has cycles that are between 24 and 40 days, then her ovulation will generally vary between Days 10 and 26, which is a range of 16 days. Since the kits last 9 days at most, it could be a challenge for the woman with irregular cycles to know on what day to begin testing. In a situation like this, women with irregular or long cycles should not start testing their urine until they notice their cervical fluid start to get wet, to be sure to test at the most appropriate time around ovulation.

7. Women with short luteal phases may not realize that the kits instruct them to test for ovulation based on an average-length luteal phase. This may lead a woman to test much earlier than she is actually ovulating. Therefore, the test results may reflect anovulation, when in reality, ovulation has probably just not yet occurred. For example, if Ashlee has cycles that average about 23 days, with a luteal phase of only 8 days, then ovulation would occur about Day 15. But the kits would instruct her to start testing as early as Day 8.

8. Some drugs can invalidate the results of the kit, including:

- a) most fertility drugs, especially those that contain FSH, LH, or HCG
- b) certain antibiotics containing tetracycline
- c) hormone therapy (HT)

9. Women over 40 and approaching menopause can have elevated levels of luteinizing hormone that are not indicative of impending ovulation. A kit should show a surge of only one day. If it shows more than one day, there is an increased chance it is invalid.

10. Finally, you should be aware that if you happen to be pregnant already, the kit would simply imply that you aren't ovulating. Of course, this is true, but this tells you nothing about your real condition (whereas charting would, as you'll soon learn). In addition, if you are postpartum or breastfeeding, the kit results may be invalid.

OTHER METHODS OF OVULATION DETECTION

Aside from the standard ovulation predictor kits just discussed, there are several other ways to predict ovulation. Here is a brief description of some of the more widely used devices currently available:

Clearblue Easy Fertility Monitor

This palm-size electronic system works with a standard urine test to monitor your cycle. By analyzing both estrogen and LH within the urine, a computer is able to tell you if you are currently in a low, high, or peak phase of your cycle. If used correctly, it can effectively predict ovulation about one to two days before it occurs, while alerting you several days before that. Certain medical conditions and drugs can compromise its performance, though, so check the company's website before considering it. The monitor costs about \$200, and a box of 30 test sticks is about \$50. clearblueeasy.com

OvaCue Fertility Monitor

This device measures the level of electrolytes in your saliva. By placing a sensor on your tongue for a few seconds each morning, a saliva reading registers on a digital screen. The probe is used every day from the first day of your cycle until the computer signals you are within about a week of ovulation. If you are trying to get pregnant, you would then begin having intercourse every day or every other day while continuing to check with a small accompanying vaginal sensor that eventually confirms when ovulation has occurred. The monitor costs about \$200–\$300, depending on whether you buy the optional vaginal sensor. ovacue.com

OV-Watch Fertility Predictor

This wrist computer looks like a watch, but it's worn only while sleeping. Its purpose is to detect chloride ions on the surface of the skin. About 6 days before ovulation, chloride ion levels surge, before the estrogen peaks and LH surges. Thus, its advantage is that it predicts ovulation earlier than typical ovulation predictor kits, which only test LH. It costs about \$200 for the watch and a two-month supply of sensors, with additional month-packets costing about \$40 each. ovwatch.com

Salivary Ferning Tests

Just as your fertile cervical fluid will show a distinct ferning pattern under a microscope ([click here](#) to see the page in the color insert), the sodium in your saliva often does the same thing. Although brands vary, these tests generally come with several acrylic slides and a specially designed microscope through which to view the results. Each morning, before doing anything else, you put some saliva on one of the slides by licking it or using your finger. Perhaps not surprising, it's now widely accepted that there is a high correlation between salivary ferning and the approach of ovulation. Unfortunately, though, it can often be difficult to interpret these slides. Prices vary by company, but they typically cost about \$30 for a microscope and several slides.

A BRIEF COMMENT ON THESE OVULATION DETECTION DEVICES

Like OPKs, these technologies may be able to assist you in determining your most fertile days each cycle, but be aware that each one generally has at least a few of the same weaknesses that I noted for the kits. And regardless, while they can do an excellent job of corroborating your charting, most won't give you the comprehensive information that your own temps and cervical fluid will give you directly every day.

Still, if you would prefer to take a more digital approach to ovulation detection, I would personally recommend the app that complements this book. This is because it's specifically designed to digitize the information you glean from practicing Fertility Awareness, and it can easily be shared with your doctor through e-mail. TCOYF.com

✿ THE ROLE OF FAM IN PREGNANCY ACHIEVEMENT

I wish getting pregnant were always as easy as making love when the mood strikes. Yet for many people, it requires more knowledge than we were typically taught while growing up. And unfortunately, people can be incredibly educated and well-read and still require high-tech procedures to get pregnant. But for a lot of people presumed to have a fertility problem, FAM can help fulfill their desire to get pregnant in numerous ways.

Infertility can have many causes, and FAM allows couples to hone in on them more quickly, thus helping their doctor determine if they require medical intervention. As mentioned before, conventional medical wisdom is for a couple to have intercourse for a full year before seeking help for getting pregnant. But for most people, that advice is an unnecessary waste of time and emotional energy. Using FAM, couples often discover that getting pregnant simply involves optimizing their chances with newfound knowledge about their combined fertility, rather than simply trying whenever. In timing intercourse precisely, one should be able to tell if there is a problem within only a few months of trying.

Eva is a 36-year-old woman who almost never menstruated from the age of 28 on. Naturally, she suspected that it would be a real challenge to get pregnant. A fertility doctor prescribed the ovulatory drug Clomid for 6 months. During that time, although she ovulated, she experienced a number of unpleasant side effects, the most serious being vision problems. In addition, the Clomid exacerbated her problem of poor cervical fluid production. So after several months of frustration on the drug, she decided to discontinue it. In fact, she and her husband, Toby, a physician, were so discouraged with the experience that they welcomed the break from feeling obligated to get pregnant.

One morning, about 4 months after stopping Clomid, she woke up “swimming in eggwhite,” as she recounted. Since she hardly ever ovulated, she rarely experienced such fertile cervical fluid. They knew that if they had any hope of getting pregnant, they had to take

advantage of that moment. Sure enough, she conceived that day, without the aid of anything but the knowledge of Fertility Awareness that they both possessed. Little Hugo was born at home 9 months later.

Fertility Factors You Can Detect Through Waking Temps

As you saw from the previous couple, cervical fluid is the crucial fertility sign to chart when trying to get pregnant. But basal temps can be equally beneficial, for altogether different reasons. One of the most common mistakes couples make is trying to time intercourse by the waking temperature.

Remember, temps are useful to determine if you are ovulating, and how long your luteal phase is. But they are not helpful for identifying impending ovulation, which is the most fertile phase of the cycle. So waiting for either the dip or rise in temps is virtually useless for timing sex. The dip occurs only in a small percentage of cycles, and by the time the temperature rises, it's usually too late.

However, I want to reiterate that taking your temps is very useful for several reasons besides timing intercourse. Using a typical cycle like [Sylvia's chart](#) as a standard of comparison, you can see how temps can reflect numerous things about your fertility. Your waking temps show whether:

- you are ovulating at all ([Sylvia's and Blakely's charts](#))
- your luteal phase is long enough for implantation, thereby preventing the need for painful and unnecessary diagnostic tests such as an endometrial biopsy ([Jennie's chart](#))
- your progesterone levels are high enough in your luteal phase ([Marianna's chart](#))
- you are still fertile any given cycle as reflected by low temps ([Rena's chart](#))
- you may have gotten pregnant, as reflected by more than 18 high temps ([Anna's chart](#))
- you may have gotten pregnant, as reflected by more than 18 high temps, even though you have menstrual-like bleeding at about the

day of your thermal shift and then subtract one week (7 days) from that date. Thus, for example, if your thermal shift was on January 20, you would jump ahead to October 20, and then go back exactly 1 week, for an approximate due date of October 13. If you ovulated about Day 14, the estimated due date would be about the same for both the formula and pregnancy wheel. But if you ovulated well after Day 14, the formula would be substantially more accurate.*

More on How to Use Your Temps to Determine If You Are Pregnant

One of the more interesting examples of temps alerting a woman to a potential pregnancy was that of Lynn, a woman who was trying to conceive after 8 cycles of charting for birth control. Up until then, she had completely normal ovulatory cycles of between 24 and 27 days. This time, though, when she got her period on Day 26, she was naturally disappointed, but assumed they would try again the following cycle. Her period lasted longer than normal, but that was not the only thing that concerned her. Her temps simply did not drop as they should by the end of menstruation. Finally, on Day 13 of the following cycle, with her temps still well above the coverline, she took a home pregnancy test and, much to her amazement, discovered that she was pregnant (see [Lynn's chart](#)).

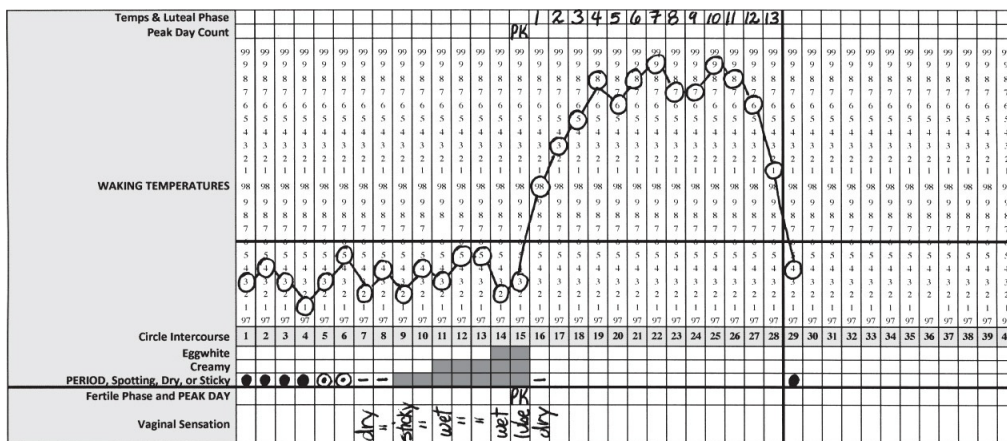
She never did learn what caused the bleeding, because she didn't realize the relevance of the high temps until about a week after it stopped. By then, it was too late for the doctor to determine why. But two doctors she consulted said that her HCG levels were so high that it could have been "vanishing twin syndrome." Today, she and her husband, Paul, are the delighted parents of a little girl named Jordan.

As you've seen, a general rule is that 18 high temps above the coverline mean that you are pregnant (see [Vicky's chart](#)). And you can determine this without spending a dime on a pregnancy test (of course, you should confirm it with a clinician). In addition, you can usually tell even before 18 high

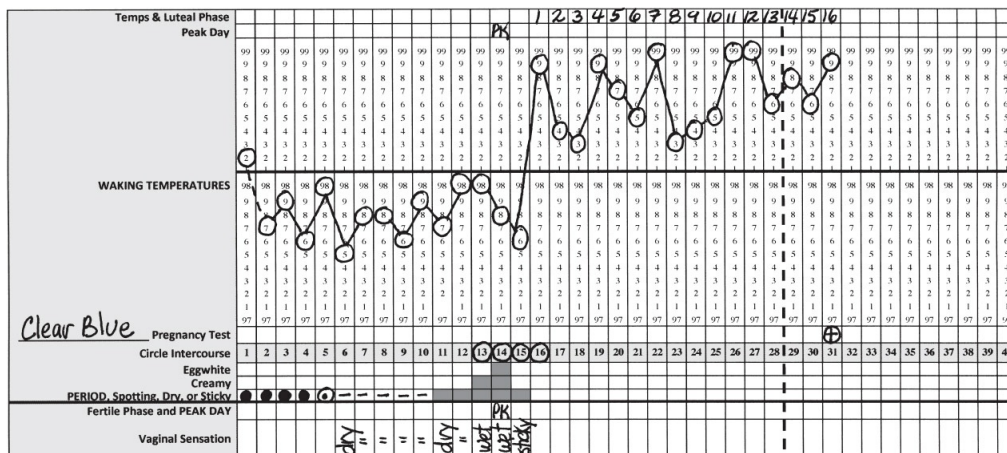
temps whether you are pregnant by two means:

1. You can be fairly confident you are pregnant if your temps remain high three days beyond your longest luteal phase to date. So, for example, if your luteal phases are typically 12 days, and if your longest one has been 13 days, but one time it's 16 days, it's likely you conceived that cycle, on Rosy's two charts below.

2. If you notice a *third* level of temps beyond the typical biphasic pattern you experience every cycle, you are almost certainly pregnant. This third level of high temps is thought to be due to the extra progesterone pregnant women produce. Unfortunately, though, many pregnant women don't experience such a triphasic pattern, and even when they do, the third set of high temps is often more subtle than the second set, as seen in [Maya's chart](#).



Rosy's typical chart. A 13-day luteal phase. Rosy has been charting as a method of birth control for about a year. Her luteal phases have always been 12 or 13 days, never more.



Rosy's pregnancy chart. The first cycle she tried to get pregnant, she was able to tell she succeeded as

We're Pregnant! *with permission of its publisher, Meadowbrook Press.*

✂ USING A COVERLINE

In order to interpret your chart, you'll want to draw a coverline to help you differentiate between low and high temps. You should review [here](#) if you have not already internalized how to draw one. Though the coverline is not as crucial for getting pregnant as it is for contraceptive purposes, it's still a useful tool that will allow you to see more easily when you ovulated in any given cycle.

♣ MALE FERTILITY

When 15-year-old Niko was 4 years old, his mom was confronted with the all-too-dreaded question of “Where do babies come from?” Wanting to appear cool and nonchalant, she simply stated matter-of-factly that “the man takes his penis and puts it into the woman’s vagina . . .” at which point the little boy’s eyes widened to the size of saucers as he exclaimed with total disbelief: “You mean, I can take it off?!”

Hopefully, you now understand why basal temps are so revealing for getting pregnant. And of course you already learned how crucial cervical fluid is for conception to occur. But before you combine this information into an efficient strategy to use with FAM, you should at least know some basic information about male fertility and the standard semen analysis.

It’s important to remember that in determining sperm count, the analysis of your partner’s semen must do more than simply measure the number of sperm per ejaculate. It should also tell you what percentage of those sperm are of normal shape and size (morphology) and what percentage are rapidly moving forward (motility). It’s a complete analysis of these three factors that actually tells you whether your partner’s count is normal, low, or infertile, thus allowing you to strategize accordingly. In reality, this is quite intuitive, for what ultimately defines male fertility is the number of sperm that have the capacity to fertilize an ovum.

As of this writing, a man’s sperm count would probably be considered normal if his ejaculate contains at least 20 million sperm per millimeter, and if the total number of sperm is at least 250–300 million. In addition, the percentage of those sperm that are of normal morphology and motility is a crucial factor, but because sources vary so greatly as to what is considered an adequate percentage, it’s best if you discuss this with your doctor. The simple fact is that the standards by which semen analysis is judged vary from lab to lab and evolve over time. Therefore, when your partner gets his sperm analyzed, you should ask that his physician answer two questions as clearly as possible:

- 1) Is his sperm count considered normal, low, or infertile?
- 2) How did the lab reach this conclusion?

If a man's sperm analysis is subfertile, it should be repeated at least one more time within a few weeks. This is because different factors may impact sperm, and an occasional low sperm count may be an inaccurate reflection of his actual number.*

✿ OPTIMIZING YOUR CHANCES OF GETTING PREGNANT

If you are just starting to try to get pregnant, there's no particular reason for your partner to rush out and get a semen analysis. Unless you have reason to think otherwise, you should tentatively consider his sperm count normal and follow the guidelines listed below for normal counts. However, for those who have been trying at random for a year, or have been timing intercourse perfectly by charting for about four cycles, I would encourage you to get a sperm analysis as soon as possible. It's a simple enough procedure and it's probably worth doing soon, since its results will help you know how best to time intercourse. Remember, fertility problems are equally divided between men and women.

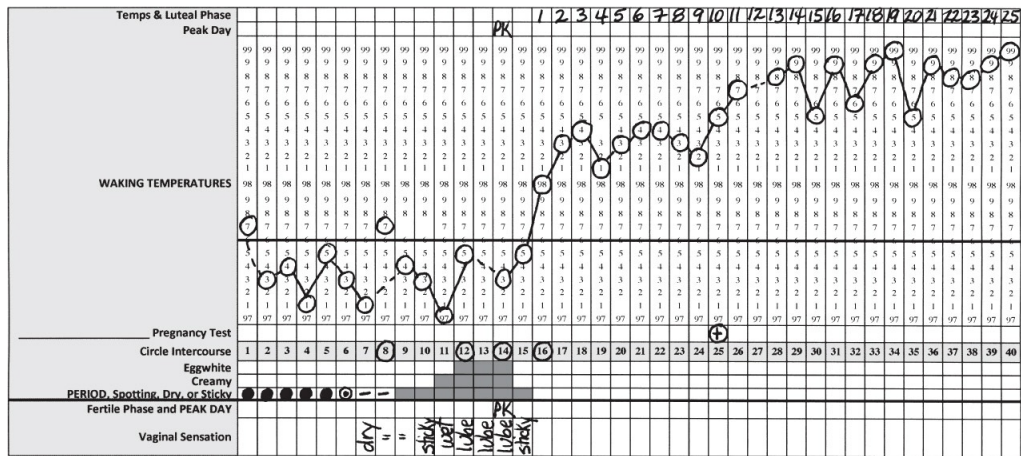
Why are millions of sperm needed to fertilize one egg? Because they don't ask for directions.

And now you are ready for the nuts and bolts of maximizing your chances of pregnancy. The bottom line is that when deciding how to best time intercourse, the frequency with which you make love should be a function of your combined fertility. That is, it should be determined by your partner's sperm count and the quality of your fertile cervical fluid.

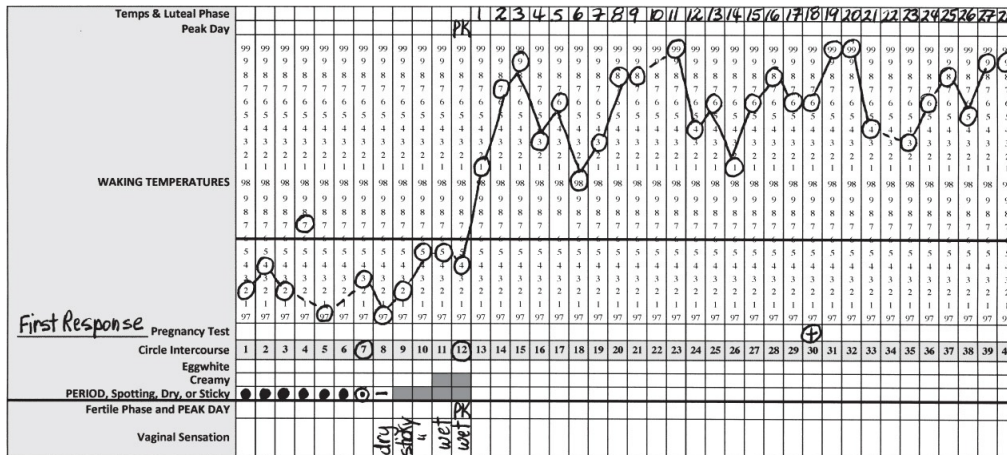
If the Man's Sperm Count Is Normal

You should have intercourse every day that you have wet cervical fluid or a lubricative vaginal sensation, through to and including the day of the first rise in temperature. Of course, the closer you time intercourse to your Peak Day, the more likely you are to conceive. If you don't have eggwhite, follow this guideline with the wettest cervical fluid you have.

- Have sex every *other* day from the first day of wet cervical fluid through to and including the first day of your thermal shift.
- Have sex every other day from the first day of *eggwhite* through to and including the first day of your thermal shift. (See [Brianna's chart.](#))
- If your partner's sperm count is low *and* you produce a maximum of only two days of slippery-quality cervical fluid, you might want to try abstaining on the first day of wet and have sex the second, or Peak Day (See [Kelsey's chart](#) below).*



Brianna's chart. An optional way of timing intercourse with low sperm count. After several cycles in a row of having intercourse every single day that she had eggwhite-quality cervical fluid, this couple decided to change their strategy and had sex only every other day through to the morning of the rise in temperature on Day 16 of this cycle. This may have allowed the sperm count to build up on the “off days.” It worked, and she was able to confirm that they succeeded through a blood test on Day 25, since she started noticing a third level of higher temps that day. Of course, she could have waited to do a home pregnancy test on Day 18 of her luteal phase, which was Day 33 of her cycle.



Kelsey's chart. An optional way of maximizing your chances of conception when your partner's sperm count is low and you have minimal fertile cervical fluid. Note that Kelsey only has about 2 days of wet cervical fluid per cycle. Since his sperm count is low, they chose to time intercourse on the second and last day of her wet cervical fluid, perhaps optimizing their chances of pregnancy by reserving the highest number of sperm for her Peak Day of fertility. They were able to confirm that they succeeded 18 high temperatures later, by Day 30.

Tips That Apply to Men with Both Normal and Marginal Sperm Quality

A tip that may help men with either type of sperm count is to abstain from any ejaculation for a couple of days just before your cervical fluid begins to appear fertile. Of course, you may think this is like telling your partner to get off the bus at the stop before you. How would he know ahead of time when that is? But if you're really in tune with your body, you'll be able to anticipate when it just begins to become slightly fertile. He should try to abstain from any type of ejaculation for those few barely fertile sticky days to build up a high enough count to take advantage of your ideal cervical fluid.

If you still haven't gotten pregnant after several months of trying this strategy, you may want to modify it slightly. In other words, those who had intercourse every day should try every other day during their fertile cervical fluid. And those who had intercourse every 48 hours may want to try it every 36 hours instead.

Finally, be aware that most of the sperm is in the first spurt of ejaculate. Therefore, the man should try to penetrate deeply and remain still while ejaculating so that the majority of sperm will be deposited at the cervix,

allowing easy access to the cervical opening.

A Note About the Semen Emitting Technique (Kegels)

In order to time intercourse most effectively, you should eliminate residual semen so that it won't mask your cervical fluid in the following days. As you read in [Chapter 6](#), this is easily done by doing Kegels about a half hour after sex. Those sperm will then have had all the time they need to swim beyond the cervix.

Why to Include the Day of the Rise in Temps for Intercourse

If you've been paying attention, you should be questioning why I still suggest intercourse up through the thermal shift, especially given that you have already learned it's generally too late to conceive by then. This is because there is a small chance the egg is still viable if it was released within the prior 12 hours. In addition, a multiple ovulation may allow for another egg still being viable. While the odds are not good, it's still worth trying, particularly if you have intercourse the *morning* of the rise.

IF THE MAN'S SPERM COUNT REVEALS INFERTILITY

The good news is that with today's advanced technologies, there is still hope for a pregnancy using assisted reproductive technologies, as discussed in [Chapter 15](#).

Sexual Frequency: Maximizing Your Odds

The number of days per cycle that you should have intercourse will be a

depending on the sensitivity of the test and the amount of HCG your body produces.

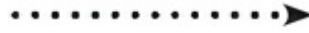
Be aware that if you have been given an HCG shot to aid in ovulation induction, you may get a false positive, which of course would also be the case if a fertilized egg implanted just long enough to release a tiny amount of HCG before immediately detaching from your lining (technically called a biochemical pregnancy). Unfortunately, the deceptive presence of HCG may be triggered on rare occasion by several other factors, including certain fertility drugs, pituitary tumors, excess protein in your urine or blood, and even the onset of menopause. So, if you have a positive pregnancy test, but don't have any signs of pregnancy within a few weeks, you should probably get tested again to confirm whether you really are pregnant.

Whether you get a blood or urine test, you may also occasionally get a false negative, meaning that you are in fact pregnant, though the test indicates that you aren't. The most common reason for false negatives is that they are performed too early, before the egg has had a chance to implant and start producing HCG. In some cases, implantation may have occurred, but it may still be too early for HCG to be detected. Obviously, if your temps continue to remain above the coverline beyond 18 days, simply repeat the test a few days later, and it will almost certainly reflect a positive result.

Or, if all else fails, you could always utilize the foolproof method that Skip Morrow so eloquently described in his greeting card below.



INTRODUCING THE
WORLD'S FIRST
**GREETING CARD
PREGNANCY TEST**
THAT'S 100% ACCURATE!
INSTRUCTIONS:
SIMPLY HOLD CARD TO
YOUR URINE STREAM...



NOW THROW THE CARD
AWAY, IT'S YUCKY.
WAIT NINE MONTHS.
IF YOU HAVE A BABY,
YOU WERE PREGNANT
AT THE TIME OF THE TEST.

“Greeting Card Pregnancy Test” reprinted with special permission of Skip Morrow.

🌸 WHEN THE LONG-AWAITED PREGNANCY OCCURS

Once your temps remain above the coverline for at least 18 days and you have not gotten your period, you are almost certainly pregnant. A rare exception is in the case of LUFs, as discussed [here](#).

Pregnancy Symptoms

Besides the obvious 18 high temps above the coverline (or even the triphasic pattern that some women get), there are often other signs of pregnancy, including:

- implantation spotting (light bleeding about 8–10 days after ovulation)
- tender breasts or nipples
- nausea
- fatigue
- excessive urination
- creamy cervical fluid starting in the latter part of the luteal phase and continuing throughout the pregnancy

✿ CONCLUDING REMARKS ON TRYING TO GET PREGNANT

As you've read, couples are usually told to consult a physician if they haven't gotten pregnant within a year of trying. By now you should realize how unnecessary it is to wait a full year if you've been timing intercourse precisely. So if you have not gotten pregnant after 4 to 6 cycles of intercourse during your most fertile days, you should carefully read [Chapter 15](#) to see what diagnostic tests and treatments to consider.

If, however, this chapter helps you to attain your dream of a healthy pregnancy, then congratulations! The joy that you'll receive will no doubt bring you bittersweet rewards to last a lifetime. As writer Elizabeth Stone once said,

“Making the decision to have a child . . . is to decide forever to have your heart go walking around outside your body.”

SUMMARY OF WAYS TO OPTIMIZE CHANCES OF GETTING PREGNANT

1. The most important tip for getting pregnant is to have intercourse on the Peak Day, which is the last day of eggwhite, spotting, or lubricative vaginal sensation. If you don't observe eggwhite, try for the last day of the wettest cervical fluid or vaginal sensation you have.
2. If your partner's sperm count is normal, have intercourse every day you have fertile-quality cervical fluid. If his sperm count is low, consider having intercourse every other day that you have fertile-quality cervical fluid. Either way, ideally he should abstain from ejaculation for a couple days until your cervical fluid becomes slippery.
3. Try to have sex through to and including the first morning of

your thermal shift, since it's possible that the egg is still viable.

Practical Tips Beyond Fertility Awareness

Please note that while the tips in this chapter are specifically written for those of you who hope to get pregnant, [Chapter 9](#) on balancing hormones naturally deals with the broader issues of treating the most common menstrual cycle disorders that can affect all women. Many of those issues are also discussed on the following pages.

*B*eyond using the principles of Fertility Awareness to time intercourse most efficiently, there are a number of tricks that can help you conceive. Many are things to avoid, but there are a lot of positive things you can do, too. All of them should be considered in light of your specific situation.

✿ HERBAL SUPPLEMENTS

As discussed in [Chapter 9](#), there are many women who swear by the effectiveness of certain herbs in dealing with all varieties of cycle-related issues. Vitex in particular is considered among the most beneficial and an herb that you may want to research further.

✿ HEALTHY DIET, WEIGHT, AND EXERCISE

You've heard it a zillion times before. When trying to get pregnant, your body should be as healthy as possible. As you've already read, this may mean limiting consumption of refined foods, excess sugar, and products with additives. (In other words, basically restricting yourself to nuts and twigs.) All of these can impede the liver's ability to metabolize hormones, while eating a well-balanced diet of wholesome foods can eliminate such potential problems.

In order to ovulate, most women should have a BMI (body mass index) of 20 to 24, or at least 22% body fat. But just as being underweight can prevent ovulation altogether, being overweight can also alter your cycles by causing excessive production of estrogen, which interferes with the normal feedback system of the hormonal cycle. Some of the signs of excessive estrogen are prolonged phases of fertile cervical fluid buildup, delayed ovulation, and irregular cycles.

Finally, folic acid is one of the most important vitamins you should take when preparing for conception. By taking 800 to 1,000 mcg of folic acid per day in the first trimester, you can dramatically decrease your baby's risk of neural tube defect, brain and spinal cord defects, and spina bifida. Since this vitamin has been shown to be so beneficial, you should begin taking it well before you even start trying to conceive, to be sure it is in your system from the day of fertilization onward.

☞ **CAFFEINE, NICOTINE, DRUGS, AND ALCOHOL**

You and your partner should both consider reducing or even eliminating caffeine, nicotine, drugs, and alcohol from your diet. In women, tobacco may decrease fertility, and caffeine seems to affect the ability both to conceive and to nurture an embryo. Marijuana has been shown to disrupt a woman's ovulatory cycle. And, as you saw [Click here](#), antihistamines can dry up cervical fluid and thus interfere with sperm survival.

Finally, alcohol can alter estrogen and progesterone levels and has been associated with anovulation, luteal phase dysfunction, and impaired implantation and blastocyst development. And if that isn't enough to concern you, it's notorious for potentially causing fetal alcohol syndrome in the offspring of mothers who drink while pregnant, especially during the first trimester.

In men, the following substances may suppress sperm production: marijuana, tobacco, alcohol, antimalarial drugs, steroids, and ulcer medications.

✂ DOUCHES, VAGINAL SPRAYS, AND SCENTED TAMPONS

Vaginal sprays and scented tampons can cause a pH imbalance as well as an allergic reaction to the chemicals used in the products. As you would expect, the resulting imbalance can impede sperm survival. And, as you've read in previous pages, douching alters the normal acidity of the vagina and is not necessary for most women.

Douching can adversely change your normal pH balance, which can ironically lead to vaginal infections and pelvic inflammatory disease (PID). It can also alter the vaginal environment to such an extent that sperm can't survive. And finally, it may wash away the very cervical fluid that sperm need to swim through the cervix to the egg. Other than that, hey, douching's no problem!

✿ ANTIBIOTICS AND YEAST INFECTIONS

If you've ever had to take antibiotics for an extended period of time, you may remember having to battle yeast infections—one of the real drags of an antibiotic regimen. So the lovely aroma of baking bread wafting from an oven while there's a fire crackling in the fireplace is a beautiful thing. But that smell emanating from your vagina? Not so much.

These drugs are notorious for killing the good bacteria along with the bad, often producing an overgrowth of candida, a yeast that renders the vaginal environment inhospitable to sperm. Study results are mixed, but several claim that one of the ways to counter the effects of antibiotics is to eat yogurt with probiotics or to ingest probiotic tablets, because probiotics replace the good bacteria killed by the antibiotics. It also appears that lactobacillus probiotics are beneficial for bacterial vaginosis, but not for candidiasis or UTIs.

✂ LUBRICANTS

Virtually all artificial lubricants, as well as vegetable oils, glycerin, petroleum jelly, and even saliva, can kill sperm. And though there have been studies that show canola oil and baby oil have minimal impact on sperm, you should avoid them, because oil-based lubricants can increase the risk of vaginal infections.

Luckily, there is a vaginal moisturizer that is specifically designed to mimic natural body secretions and provide an optimal environment for sperm. It's called Pre-Seed, and it works by delivering a pH-balanced semen-like fluid. You can learn more about it at www.preseed.com.

✿ POSITIONS DURING INTERCOURSE

Although no definitive studies appear to have been done, there is considerable speculation that if the man has a marginal sperm count, the best position for intercourse is the traditional missionary position. This allows for the deepest penetration, and will thus deposit the sperm closest to the cervix.

Some clinicians also believe that if your cervical fluid is not the most fertile type, or the sperm quality is marginal, it may be advantageous for you to remain lying down for up to half an hour in the basic position in which you had intercourse. The theory is that this will help maximize the time the sperm has to travel up (so probably another reason to save the downward-facing-dog yoga position for when you are outside of your fertile phase!).

✂ CONDITIONS THAT MAY BE AMENABLE TO NONINVASIVE REMEDIES

Irregular Menstrual Cycles

In case you skipped [Chapters 7](#) through [9](#), there I discussed potential causes of irregular menstrual cycles and the numerous things that you could do to try to regulate them. At a minimum, I would encourage you to be examined for PCOS, a serious medical condition for which irregular cycles are one of the primary symptoms. It's discussed more fully in [Chapter 8](#).

Thyroid Issues

If you're one of those women who suffer from unusually long cycles in which you have extended phases of less-than-fertile-quality cervical fluid, you should also observe whether you have low basal body temps. This is because the combination of these three symptoms often indicates hypothyroidism, a condition that you may be able to treat by simple nutritional supplements, as discussed in [Chapter 9](#).

Limited Fertile-Quality Cervical Fluid

My professional experience is that one of the most commonly overlooked causes of subfertility is the lack of lubricative cervical fluid produced during a woman's cycle. Of course, the more days you produce it the more likely you'll be able to get pregnant. Women coming off the pill or approaching menopause are particularly susceptible to this problem, as are women who have had cone biopsies performed on their cervix.

If charting has confirmed that your cervical fluid doesn't seem wet enough, or isn't wet for at least two days, it may be a reflection of other reproductive problems. Still, there may be a simple solution available. Before resorting to more involved medical therapies, I would encourage you to review [Chapter 9](#). You might also want to try any of the following

recommendations:

- Avoid drugs that may dry up cervical fluid, such as antihistamines, atropine, belladonna, cough mixtures containing antihistamines, dicyclomine, progesterone, propantheline, or tamoxifen. If you must take Clomid, combining it with oral estrogen may compensate for its drying effects. However, estrogen should never be taken without fertility drugs, since, paradoxically, that could actually inhibit ovulation.
- Drink lots of water!
- Evening primrose oil is a supplement that may have beneficial effects on your cervical fluid. It has a high content of the omega-6 essential fatty acids, linoleic acid, and gamma linolenic acid.
- A supplement such as FertileCM is designed to help women develop the clear and lubricative cervical fluid that is ideal for conception (available at fairhavenhealth.com).
- Mucinex Expectorant or Guaifenesin Extended-Release 600 mg tablets, as directed on the box, starting about 4 days before you would expect your Peak Day and continuing until a day after your thermal shift. Along with helping to liquefy mucus in the lungs, it also has the added benefit of making your cervical fluid wetter or more slippery. So if you don't produce eggwhite, you could try this.
- PLAIN Robitussin expectorant (with no letters behind it, or it can actually dry up your cervical fluid, and absolutely not with dextromethorphan!). You can also take a generic version of it, with the sole ingredient being guaifenesin. Take 2 teaspoons 3 times a day starting about 4 days before you would expect your Peak Day and continuing until a day after your thermal shift. It works similar to Mucinex above.

Luteal Phase Insufficiencies

As you know by now, the reason it's so important to have a luteal phase of at least 10 days is so that the fertilized egg has sufficient time to implant before menstruation begins. There are three basic types of luteal phase issues, but all of them are usually a reflection of an ovulatory dysfunction.

- Type 1: The luteal phase is too short, and so a fertilized egg would have no chance to implant in the uterine lining. This condition is the easiest to detect through charting. Anything under 10 days would be considered a problem, but for some women, even 10 or 11 days may be considered borderline.
- Type 2: The luteal phase appears to be a normal length, but the amount of progesterone is not optimal to produce an ideal uterine environment for implantation. This is often reflected in temps that hover around the coverline.
- Type 3: The luteal phase appears normal, but the progesterone starts to drop dramatically just a week or so after ovulation, often causing premenstrual spotting. Again, this usually means that progesterone is not high enough to produce an ideal uterine environment for implantation.

A common mistake in trying to diagnose a luteal phase problem is that the woman's blood is routinely tested only on Day 21, or she is given an endometrial biopsy around Day 26—both tests being done without regard for when she actually ovulated that particular cycle. Ideally, in order to diagnose a potential problem, you should have a Pooled Progesterone Test. With this, you have your blood drawn every other day on Peak Day plus 3, 5, 7, 9, and 11. (Alternatively, you could get it on Thermal Shift Days 2, 4, 6, 8, and 10.) The key point is that luteal phase testing should be done based on when you ovulated that particular cycle.

Dr. Thomas Hilgers, one of the foremost OB/GYNs in the field, provides one of the following protocols for progesterone support, but only after he has established that his patient is definitely in her luteal phase. I have chosen not

to include the dosages because doctors differ on their protocols, but you may want to at least familiarize yourself with these therapies:

- Oral micronized progesterone capsules (standard or sustained release)
- Micronized progesterone vaginal capsules
- Intramuscular progesterone injections
- Human chorionic gonadotropin (HCG)

If you are diagnosed with luteal phase insufficiency (sometimes called inadequacy), there is one more option you may want to explore before relying on the traditional medical remedy of progesterone supplementation, Clomid, or HCG injections. This is to have your prolactin tested, because an elevated level can lead to this problem.

A BRIEF LOOK AT TRADITIONAL CHINESE MEDICINE AND ACUPUNCTURE

As you read in [Chapter 9](#), Traditional Chinese Medicine and other alternative or complementary therapies such as naturopathy and herbs have garnered increasing public interest and acceptance. As applied to getting pregnant, such approaches are more intensive than the other strategies discussed in this chapter, in part because they require consulting with professional clinicians in the field. Still, they are much less invasive than the drugs and high-tech procedures that you may need and that are discussed in the next chapter, and thus I would encourage you to consider them before moving on to those more mainstream but invasive strategies.

Of all the alternative therapies, the most promising one for getting pregnant appears to be Traditional Chinese Medicine (TCM). The general goal of TCM is not only to cure specific ailments, but to maintain optimal health so that you prevent disorders from occurring in the first place. In addition, it's considered a holistic therapy because it views the whole person, not just the individual ailment.

TCM draws on many centuries of study of acupuncture, medicinal

herbs, nutritional therapy, massage, and therapeutic exercise. The principle behind this form of medicine is to look for the underlying causes of imbalance in the yin and yang, which lead to disharmony in the qi energy in the body (qi is pronounced “chee”). TCM addresses how illness evolves in a patient, and then treats the whole person.

The therapy that I would single out as being most strongly supported by scientific studies is acupuncture. The theory behind it for fertility enhancement is that it stimulates the production of hormones and immune system cells, as well as stimulating pelvic blood flow through a relaxation of the blood supply to the ovaries and uterus. It has not only been shown to enhance fertility in both women and men when used alone, but when it’s used in combination with IVF treatment, pregnancy rates appear to increase significantly.

Still, a few caveats are worth mentioning here if you are considering acupuncture or any of the other alternative therapies to get pregnant:

- It’s unlikely that they alone could help you conceive if you have a structural problem such as blocked tubes, a large fibroid, or anatomical defects. (Of course, if you have had surgery to rectify such issues, they could help promote your fertility following the surgery.)
- Like the more common fertility drugs, these alternatives are powerful therapies. However, they typically take longer to accomplish the same goals, so if you haven’t conceived using FAM and time is of the essence (especially if you are older), then you should probably consider the more widely used reproductive technologies in combination with TCM (the former are all discussed in the next chapter).
- If you do try acupuncture or any complementary therapy, it’s imperative that you inform your reproductive physician that you are doing so. Although these therapies are relatively noninvasive, as I said, they can be very powerful (for example, some medicinal herbs can actually disrupt a pregnancy!). Therefore,

they should never be used in combination with other therapies without your entire team of professionals being apprised. Having said all that, though, if you do have the luxury of time, if you have an aversion to fertility drugs, if you don't want to increase the risk of multiple ovulation, or if you simply want to improve your chances of conception through less invasive means, then I would encourage you to explore these options with a trained clinician in the field.

✂ FOR MEN: HOT TUBS, SAUNAS, BICYCLES, TIGHT CLOTHING, AND SUPPLEMENTS

Unless clearly dealing with a case of physical obstruction that is treatable only by surgery, there are several noninvasive treatments that men with subfertile sperm counts may want to consider before moving on to more serious medical procedures. Just remember that most everything a man tries on his own will probably not be detected in the ejaculate for two to three months. This is because it takes that long for newly created sperm to reach maturity.

The first is, ah, yes, the age-old weight issue. If it's any consolation to women, men also must deal with it when it comes to fertility. A man's sperm count can be compromised if he is either too thin or too heavy. So, if a man's sperm analysis is not within a normal range, he can at least try to improve it through achieving his ideal weight.

As you know, sperm are very sensitive to heat. While it's not clear how much is too much, it's wise if you're having problems conceiving to avoid anything that exposes the testes to excess heat. Hot tubs and saunas can be enjoyable, but from the sperm's perspective, it's basically saying "Life's a fish and then you fry." Laptop computers have also become implicated as a potential cause of overly heated testes. Not only does the computer itself generate a lot of heat, but the position of balancing it on thighs that are pushed together can further cook them, as it were.

Bicycling is another activity that may affect sperm counts. The constant bumping of the testes, combined with the added heat generated from sweating, may contribute to diminished sperm counts. If the man's sperm analysis is fine, then by all means, enjoy the daily bike rides. But if the sperm count is marginal, it's one more practical change he might consider making.

Even hot work environments may have a harmful effect on sperm production. It should come as no surprise that standing in front of a pizza oven eight hours a day may not be the most efficient way to build up a sperm count. And finally, as far as the common folk wisdom of avoiding tight underwear and pants—it certainly can't hurt. Obviously, if bikini briefs on

your guy rock your boat, and your partner wants to wear them occasionally to seduce you, more power to both of you. But he would be wise not to wear them every day.

The bottom line is that until you achieve the pregnancy you desire, you may want to avoid anything that causes the sperm to get too hot. And remember that it may take as long as 2 to 3 months after reducing such exposure for a new generation of healthy sperm to mature.

Finally, for men with marginal counts, perhaps the most overlooked change is to try to keep ejaculations to a maximum frequency of once every 48 hours, since this may be all that is necessary to increase it. (Please don't shoot the messenger!)

✂ OTHER FACTORS TO CONSIDER

Age

One of the major reasons for the prevalence of subfertility is the relatively late age at which many people today attempt to start having children. The reality is that as women reach their mid to late 30s, their fertility begins to decrease substantially.

There are several reasons why couples in their 30s face lower fertility. Some factors are easily remedied through simple education, while others are a regrettable function of biology. One of the most fundamental and easily rectified reasons for impaired fertility is that as people age together, they tend to have intercourse less frequently, obviously decreasing their odds of conception. Of course, charting would help them time their lovemaking to fully compensate for their decline in sexual frequency. Two acts of intercourse on perfectly timed days is much more likely to result in pregnancy than a dozen randomly performed acts throughout the cycle.

There are physiological changes that also affect overall fertility rates. As women age, the quantity and quality of fertile cervical fluid tends to decline. I've noticed that women in their 20s will generally have 2 to 4 days of eggwhite, while women approaching their late 30s will often have a day or less. This decline can lead to impaired fertility if intercourse is not timed well. In addition, as women approach their late 30s, they tend to have more anovulatory cycles, and often when they do ovulate, their luteal phases are shorter. Finally, the quantity and quality of women's eggs also decline, but as discussed in [Chapter 10](#), there are at least effective ways to predict the pace of the decline.

In any case, you should know that while it's definitely easier to conceive a child and carry it to term in your 20s than it is in your mid-30s and later, it's also true that both FAM and various high-tech strategies can help shift the odds back in your favor.

Stress

One of the most commonly held axioms is that stress leads to infertility. While there is no doubt that stress is associated with diminished fertility, the opposite appears to be more accurate—that is, infertility leads to stress! So the old adage “just relax and you’ll get pregnant” is well-meaning but often misguided.

There are several ways, though, in which stress can indirectly influence fertility. One is simply that leading a busy life and all the stress that entails may leave little time or energy for the average couple to have intercourse frequently enough to achieve pregnancy. Of course, as you know by now, intercourse doesn’t need to be frequent as long as it’s well-timed.

A second way is that stress itself may affect when ovulation occurs. In fact, one of the most common causes of delayed ovulation is both physiological and psychological stress. This is because stress can have a dramatic effect on the functioning of the hypothalamus. It is the hypothalamus that is responsible for the regulation of appetite, temperature, and most important, emotions. It also regulates the pituitary gland, which in turn is responsible for the release of FSH and LH. When stress affects the hypothalamus, the end result can be delayed secretion of these reproductive hormones, which are necessary for the release of a mature ovum. (It’s not known what triggers an early ovulation, but stress does not appear to play a role.)

As you know, the timing of ovulation will determine the length of the cycle—the later it occurs, the longer the cycle will be. Occasionally, if stress is severe, it can prevent ovulation from occurring altogether. If stress were to affect your cycle, then, one of two things would probably happen:

1. You would have a longer-than-average cycle, with ovulation occurring later than usual and menstruation following 12 to 16 days afterward, assuming pregnancy didn’t occur. You can see this on Lily’s chart below.

2. You would have a long cycle, but wouldn’t release an egg (an anovulatory cycle). If this were the case, the cycle could theoretically extend for months. Or you would have a long cycle followed by anovulatory bleeding, which is the result of a drop in estrogen, as opposed to progesterone. Remember that in an ovulatory cycle, the

ultimately indicate when you have finally ovulated. So if you observe patches of slippery or eggwhite, take advantage of those days until you see the confirmation from a thermal shift that ovulation has indeed taken place.

The fact is that stress may not necessarily affect a cycle at all, or it will affect individual women differently. You should also know that chronic stress may tend to normalize over time, so that the woman's body eventually stops perceiving it as stress, and thus cycles may revert to the way they were before.

Avoiding Ovarian Surgery

If you are ever in a situation where your doctor recommends surgery on your ovary to rectify a problem such as an ovarian cyst or endometriosis, insist on discussing alternatives to surgery. If he says there aren't any, consider getting a second opinion, because one of the quickest ways to diminish your fertility is through ovarian surgery that either removes an ovary altogether (the most drastic way to decrease your fertility) or removes even a part of your ovary. This is because all your mature eggs rise to the ovarian surface, so it's crucial to preserve that outer shell if at all possible.

However, if you absolutely must undergo ovarian surgery, there is a new generation of surgeons who are being trained in a new technique that decreases the extensive scarring that is usually inherent in this type of procedure. This procedure is further discussed in the next chapter, [Click here](#).

The Jewish Practice of Niddah

If you are an observant Jew who practices niddah, you certainly know that you are prohibited from having intercourse for 7 days following the last day of your period. Alas, if you meet any of the following three conditions, it may be affecting your ability to conceive:

- your cycles tend to be fairly short (i.e., less than 25 days or so)
- your cycles are average length but you bleed for at least 7 days
- you have midcycle spotting

The reason the practice may be impeding your ability to get pregnant is that it prevents you from having intercourse during what may be your most fertile phase. For example, if you have cycles of about 24 days, you are probably ovulating about Day 10, but you're not allowed to resume intercourse again until about Day 13. And even if you have average-length cycles but your periods last 7 days or more, you would again find yourself abstaining until about Day 14 or so, possibly a bit too late for your particular ovulation. Finally, if you happen to be a woman who has occasional midcycle spotting, niddah rules would again require you to abstain at the time that you are most likely ovulating.

Needless to say, if you practice niddah and you would like to conceive, I would highly recommend charting to determine whether this may be the reason you aren't getting pregnant. Then discuss it with your rabbi to see what modifications are acceptable according to Jewish law.

The Logical Road to Parenthood

As you can see, there is a fairly diverse list of possible impediments to a successful pregnancy, but fortunately, you can address many of these problems on your own, before resorting to the more intensive approaches discussed in the next chapter. Charting your cycles, of course, should always be the first step. By doing so, you can at least determine that your problem is more than just a question of bad timing, and if necessary, beyond that, you could then choose a potential remedy or alternative solution that makes the most sense for your particular situation.

Regardless, try not to be discouraged in your quest for a baby. For even if self-education and these simple noninvasive steps don't result in success, many of you can still reach your dreams through the latest advances in assisted reproductive technologies.

LOVEMAKING VERSUS BABYMAKING

When I had my baby, I screamed and screamed. And that was just during conception.

—JOAN RIVERS

Although a person's sexuality is separate from their fertility, society often equates them, leaving many people dealing with infertility feeling that they are also somehow diminished sexually. This in turn may lead to emotions ranging from unresolved anger and fear to anxiety or guilt. Even worse, communication between the couple often deteriorates just when they need to be more supportive than ever. Sexual problems often arise between couples touched by infertility because sex has taken on one main function, procreation, rather than making love.

It may reassure you to know that what you are experiencing is absolutely normal. But so much of the anxiety associated with trying to conceive could be eliminated if you knew exactly when in your cycle you could get pregnant. Of course, some couples' fertility problems will require high-tech treatment, but ironically, those procedures may actually free them to enjoy lovemaking for what it is—and not as a means of only conceiving.

Having a sense of humor during this trying time can help pull you through the rough times, as this couple so poignantly conveyed to me:

Diana had very irregular cycles, having ovulated only about eight times in the prior four years. Because she had excessively high levels of prolactin (the hormone that is normally present in breastfeeding women), she was prescribed Parlodel and Clomid to regulate her cycles. Along with the drugs and FSH shots, she had several ultrasounds taken. In addition, she would put her legs up on the wall for about an hour after intercourse. After about six months of trying, nothing worked. On the advice of her gynecologist, Diana and Steve tried using fresh eggwhites to simulate fertile-quality cervical fluid.

Before making love, they removed an egg from the refrigerator, separated it, and inserted the eggwhite into a pastry bag. After Diana comfortably positioned herself, Steve blew the ice-cold eggwhite into her vagina through the nozzle. Diana laughed so hard that the eggwhite squirted out in one fell swoop. So much for that

cycle.*

During the next cycle they decided to try things a little differently. Having learned their lesson from the first time, they let the egg sit at room temperature first. Then they used a vaginal-cream applicator to insert the eggwhite. They conceived that day—Mother's Day. Today, 22 years later, their daughter Tessa is graduating from college.

Who knows? When you finally achieve your dream of the pitter-patter of little feet, whether it be the old-fashioned way, through assisted reproductive technologies, or through adoption, you might just find yourself trying to remember what it was like to have so much time for sex in the first place.

What Next? Tests and Treatments That *May* Be Necessary to Get Pregnant

The world is moving so fast these days that the man who says it can't be done is generally interrupted by someone doing it.

—ELBERT HUBBARD

As you know by now, the most important advice for a couple trying to get pregnant is to chart the woman's cycle as the first step. It's astounding that something so fundamental is routinely ignored. Of course, there will be individuals for whom FAM won't be enough to get pregnant, but even then, charting will help determine what tests or treatment are needed, often allowing them to bypass inappropriate or unnecessary interventions.

When first beginning to chart, you should be able to verify that there are no obstacles to pregnancy that you can clearly identify. This would include issues like anovulation, lack of fertile-quality cervical fluid, excessively short luteal phases, and recurrent miscarriages. If your charting reveals nothing wrong, but you are still unable to get pregnant after optimally timing intercourse for about 4 cycles, your partner should get a semen analysis.

If his sperm count is low, try timing intercourse by the FAM guidelines discussed [here](#) for another few cycles. If, however, his sperm analysis is normal, both of you should be given a comprehensive fertility workup to determine if there might be a physical impediment to getting pregnant. (His

workup, which is much simpler than yours, is discussed [here](#) near the end of this chapter.)

A FEW IMPORTANT CONDITIONS THAT MAY AFFECT YOUR FERTILITY

There are four conditions, any one of which you may have, that are discussed extensively in different chapters in this book. I've listed them below on the off chance that you might have skipped ahead and missed that crucial information if you are trying to conceive. The first two below will typically give you obvious signs, even if you are not charting. The last two may be asymptomatic. In all four cases, treatment is often needed before you can get pregnant.

Endometriosis

A common problem in which the cells that normally line the uterus are displaced and attach elsewhere in the pelvic cavity, possibly affecting ovulation and even the ability of the fallopian tubes to grasp the egg.

Polycystic Ovarian Syndrome, or PCOS

A common disorder in which a woman has an imbalance of sex hormones that frequently leads to anovulation and irregular menstrual cycles as well as more general health problems.

Luteinized Unruptured Follicle Syndrome

A condition that prevents ovulation altogether, but on your fertility charts may mislead you to believe you are ovulating normally.

Premature Ovarian Aging

A condition in which the woman's ovaries age much sooner than average, making it more difficult to conceive.

✿ THE WOMAN'S FERTILITY WORKUP

Generally speaking, your fertility workup will involve most or all of the following steps:

A. Medical History Review

The clinician will take a comprehensive medical history and review any previous fertility tests before performing a standard pelvic exam. The exam is to rule out any obvious physical problems of the uterus, ovaries, and cervix, such as fibroids, cysts, and infections.

B. Diagnostic Tests

There are a number of fairly noninvasive means of determining potential problems. In women, the four general areas of concern in the reproductive system are:

- dysfunctional ovulatory cycles
- cervical problems
- uterine and fallopian tube abnormalities
- endometriosis

The tests and procedures discussed below are used to detect problems in any of these areas. They are listed in approximate order, from least to most invasive. However, be aware that if you go straight to a reproductive endocrinologist or other fertility specialist, they will undoubtedly bypass the first three altogether.

Waking (Basal Body) Temperature Charting

As I'm sure you can recite in your sleep by now, this is the sign that is easiest to identify and puts a sense of control in your hands. Taking your waking temps will help you determine whether:

- you are ovulating
- your luteal phase is long enough for implantation (at least 10 days)
- your progesterone levels are high enough in your luteal phase
- you have a thyroid problem (either hypo- or hyperthyroid)
- you are still fertile in any given cycle as reflected by preovulatory temps
- you may have gotten pregnant, as reflected by more than 18 high temps
- you are in danger of having a miscarriage, as determined by a sudden or gradual drop in temps after an apparent conception
- you were pregnant before having what seemed to be just a “late period”

Cervical-Fluid Ferning Test

In this test, cervical fluid is removed from the woman’s vagina and observed under a microscope to determine if she is indeed fertile that day. If she is, it will reveal a beautiful ferning pattern like the one [here](#) in the color insert. But be aware that the test will be invalid if it is done at the wrong time in your cycle. Of course, you yourself should be able to tell when you are fertile by simply observing when it’s stretchy, clear, or lubricative, and you know that it doesn’t matter whether that’s on Day 9, 14, or 20.

Postcoital Test

This test determines whether the couple’s sperm and cervical fluid are compatible. To determine this, a sample of cervical fluid is taken from the woman’s vagina within two hours of intercourse (again, for the test to be valid, it has to be done at the right time, when the woman has fertile-quality cervical fluid, and not necessarily on Day 14!). If the two are compatible, the clinician will be able to observe the live sperm swimming

forward.

Hormone Blood Tests

Blood tests are a fundamental means of determining if the woman is producing normal reproductive hormones or has a hormonal imbalance. They can determine levels of FSH, LH, estrogen, progesterone, and thyroid-stimulating hormone (TSH). They can help ascertain some vital facts, such as whether the woman is ovulating, has a normal luteal phase, or is possibly entering menopause. The table below summarizes the most commonly performed blood tests.

Special Pap Tests

These are fertility screening swabs or Pap smears that test for a number of potentially problematic conditions such as pelvic inflammatory disease (PID) and sexually transmitted infections (STIs), all of which could adversely impact your fertility.

HORMONE BLOOD TESTS*

In order of day of cycle it is usually drawn. All test results vary depending on the laboratory used.

Hormone	Best Time to Take Test	Purpose of Hormone
Follicle Stimulating Hormone (FSH)	Day 3 and Day 10, if part of Clomid Challenge Test	Stimulates follicle development. If FSH levels are too high, it could indicate possible menopause or declining fertility.
Estradiol	Day 3 and possibly mid-luteal phase (7 to 10 days after your LH surge)	Stimulates egg maturation and endometrial maturation for the implantation of a fertilized egg. Responsible for the fertile quality of the cervical fluid around ovulation.
Inhibin B	Day 3	A protein hormone that inhibits FSH and is tested to predict ovarian reserve, including egg quality and quantity.

Luteinizing Hormone (LH)	Around ovulation	Triggers ovulation when it surges.
Progesterone	Mid-luteal phase (7 to 10 days after your LH surge)	Necessary for sustaining the uterine lining and maintaining early pregnancy. Causes the rise in BBT and drying of cervical fluid in the postovulatory infertile phase.†
Pooled Progesterone	Thermal shift Days 2, 4, 6, 8, and 10, or Peak Day plus 3, 5, 7, 9, and 11	Since the progression of progesterone levels during the luteal phase is so important, it is more accurate to test several alternating days than just one mid-luteal phase.
Prolactin	Any cycle day	Stimulates the production of breast milk and inhibits the ovarian production of estrogen. Occasionally present in excessive levels in non-breastfeeding women, potentially causing fertility problems.
Thyroid Stimulating Hormone (TSH)	Any cycle day	Stimulates the production of thyroxine in the thyroid gland, the endocrine gland that regulates hormones in the body. Excessively high or low levels may affect fertility.
Testosterone	Any cycle day	Necessary for the production of estrogen. When produced in high levels, may impact fertility.
Dehydroepian-drosterone (DHEAS)	Any cycle day	Produces the same effects as male hormones (androgens). When produced at high levels in both men and women, may cause fertility problems.

C. Diagnostic Procedures

Ultrasound

The only way to definitively determine if ovulation has occurred is with an ultrasound, which is usually done vaginally. This procedure offers a means of being able to know if and when ovulation occurred. It's especially useful in detecting the condition LUFs (luteinized unruptured follicle syndrome), in which the woman's body produces all the signs of ovulation, including a Peak Day and thermal shift, but without releasing an egg ([click here](#)).

The obvious disadvantage of ultrasound is that it's not practical on a daily basis. However, if you are charting, you should be able to help your doctor know when to schedule it by observing when you are starting to produce fertile-quality cervical fluid.

As always, if you are told to come in for an ultrasound on a particular cycle day, such as the infamous Day 14, rather than one based on your individual cycle, the ultrasound could be completely invalid. The one exception is if you are taking fertility drugs, which control your cycle artificially.

Endometrial Biopsy

This procedure sounds ominous but is in fact routine and fairly simple. We tend to associate the word "biopsy" with cancer, but the test has nothing to do with that. Its purpose is to determine if the uterine lining (endometrium) is sufficiently developed during the luteal phase of the cycle. The lining must be mature enough to be able to sustain the implantation of a fertilized egg.

The test is usually done a couple of days before the woman's expected period. A tiny piece of the uterine lining is removed and biopsied. Unfortunately, it can be fairly uncomfortable, because it may cause cramping or a sharp pain from partially dilating the cervix. So you'll probably want to take a pain reliever about 30 minutes before the procedure.

The timing of this test is crucial, because if it's done too soon after the egg is released (especially in the case of delayed ovulations), it can deceptively appear as if the woman has an undeveloped endometrium. Likewise, if it's done too late after ovulation, the woman may start her period before the test has been completed. Thus, charting and/or an ultrasound is necessary in order to time this test

appropriately.

Fallopian Tube Tests

The *hysterosalpingogram*, with the thankfully short acronym **HSG**, is an X-ray procedure that involves inserting dye through the cervix and uterus to see whether it spills out the fallopian tubes and into the pelvic cavity. Although it can be quite useful, the procedure can be uncomfortable and does have its limitations.

For one thing, the tubes occasionally spasm during the procedure, giving the appearance of being blocked, when in reality it may have been the test itself that caused them to appear closed. Another problem is that if the tubes are only scarred but not blocked, the HSG would not necessarily reveal that. The concern with scarring is that it could lead to a dangerous tubal pregnancy, in which the fertilized egg begins to burrow into the tube rather than the uterine lining.

The other purpose of an HSG is to evaluate the uterine cavity for the presence of any type of surface lesion, such as polyps, fibroid tumors, or scar tissue. However, it could miss some of these, and thus some clinicians may also want to perform one of the tests in the bulleted list below.

There are a number of procedures that are designed to not only determine if your fallopian tubes are open, but to test if they are *functioning* properly. Indeed, one of the most interesting things about fallopian tubes is that they are more than just tubes! The fimbria at the end are more like delicate folds, which, when working properly, capture the eggs that have been released from the ovary with gentle sweeping motions. If the tube is diseased, however, this function is compromised, so that even if it's seemingly open, it can no longer serve its purpose (see picture of the fimbria [here](#) in the color insert).

As with everything in the fertility world, there are numerous variations of this procedure:

- ***FUS (Fluid ultrasonography)***

A sterile saline solution using a vaginal ultrasound.

- ***Tuboscopy***

A thin telescope which is passed through the fimbriae of the

fallopian tubes to evaluate their inner structure. It's a more accurate way of identifying various tubal issues, such as polyps and scar tissue.

- ***Falloscopy***

A fiber optic tube which is guided through the cervix and uterus and into the fallopian tubes.

- ***Selective Hysterosalpingogram***

A thinner, flexible catheter which is run inside the HSG catheter. It's able to also clear a tube that has an obstruction, so it's both a diagnostic and therapeutic procedure.

- ***HyCoSy (Hysterosalpingo-contrast sonography)***

Needless to say, this exam's official name would be a killer in any spelling bee. A procedure in which a small amount of fluid is injected into the uterus through the cervix. This procedure has the advantage of not using radiation or iodinated contrast material.

- ***Tubal Perfusion Pressure (TPP) Measurements***

The most recently developed of these technologies, this procedure tests for the functioning of tubes, because those that are rigid and diseased need higher pressures to push dye through.

Hysteroscopy

The best “window into the womb” is through hysteroscopy, a procedure performed specifically to view inside the uterus. In the context of fertility, it's done primarily to determine if the woman has fibroids or other conditions that may affect her ability to carry a pregnancy to term.

Laparoscopy

This is exploratory surgery that is used to view the internal pelvic area, especially the outside of the ovaries and fallopian tubes. It usually involves a couple of tiny incisions, including one in the navel, through which a lighted tube is inserted to view the pelvic region. Although the procedure is fairly routine, it's typically done with general anesthesia.

It is most commonly used to detect endometriosis. There is a specific type called “near-contact laparoscopy” that is considered the

gold standard for treating endometriosis. You can learn more about it [here](#).

THE WOMAN'S FERTILITY WORKUP: COMMON DIAGNOSTIC TESTS AND EXPLORATORY SURGICAL PROCEDURES

(in alphabetical order)

Test	Best Time to Take Test	Purpose of Test
Basal body temperature charts	Throughout cycle	To determine whether you are ovulating and how long your postovulatory phase is.
Cervical fluid ferning slide	The few days leading up to ovulation, when your cervical fluid is slippery and wet	To determine if your cervical fluid forms the characteristic ferning pattern indicating that it is fertile enough for sperm to survive within it or if you are making adequate estrogen. Note, though, that the test is not quantitative and does not predict if the sperm can swim in it.
Clomid Challenge Test	Day 3—FSH and Estradiol Day 10—FSH	To evaluate ovarian reserve and chances for pregnancy before assisted reproductive technologies.
Endometrial biopsy	One or two days before expected period in order to assure validity	To determine if luteal phase is sufficient and uterine lining is suitable for the fertilized egg to implant (but its clinical validity is disputed).
Falloscopy	Before ovulation	To diagnose any abnormalities within the miniscule tubes.
Fluid Ultrasonography	Before ovulation	To determine if the uterine cavity is normal.
Hormone blood tests (miscellaneous)	Various times throughout cycle (see table)	To determine critical factors about your cycle such as whether you produce enough FSH,

		estrogen, LH, and progesterone, all necessary for successful conception and implantation.
Hysterosalpingogram (HSG)	The week after your period ends	To determine if the fallopian tubes are clear and the uterine cavity is normal.
Hysteroscopy	Usually before ovulation	To determine if the uterine cavity is normal (not routinely performed).
Laparoscopy	Usually before ovulation	To diagnose and treat pelvic disease such as adhesions or endometriosis.
Ovarian Reserve Tests	Varies depending on the test	See chart .
Postcoital Test (PCT)	Close to ovulation (ideally after intercourse during presence of your most fertile cervical fluid)	To determine whether the man's sperm can survive in the woman's cervical fluid. (This test is rarely performed anymore due to its disputed clinical validity, because the predictive value is poor and the results do not change the recommended therapy)
Ultrasound	Several times before ovulation, just before HCG injection and sometimes after	To evaluate follicle maturation and size, ovulation, and endometrial thickness and character.

AGING EGGS AND YOUR OVARIAN RESERVE

Inevitably, one of the first questions a fertility doctor asks is your age. This is because it's still one of the best indicators of your ovarian reserve—the quantity and, to some extent, the viability of your ovaries' egg supply.

If the quantity is low, it's usually called a decreased or diminished ovarian reserve (DOR). Ultimately, of course, what you really want to

know is the quantity *and* quality of your eggs, in addition to how well your ovaries will respond if you're going to use assisted reproductive technologies such as IVF.

In essence then, there are three reasons why a woman would want to test her ovarian reserve. Specifically, to predict:

- approximately how many years of fertility she has left
- her general fertility status for her particular age
- how well her body will respond to drug stimulation preceding IVF

As you know, we are born with all the eggs we will ever have, about 300,000, and after years of menstrual cycles, the supply is depleted, causing fertility to gradually decrease until about age 37. Afterward, it declines more rapidly until menopause, usually by the early 50s. But if age were the *only* factor determining a woman's fertility, there would be no need to even test her ovarian reserve.

In reality, even though ovarian reserves diminish over time in all women, the extent to which they do in each individual woman is unique. The one thing researchers now believe is that the steeper decline in fertility to menopause is about 13 years—but the age a woman starts that decline can vary quite a bit. Therefore, two women of the same age may have completely different ovarian reserves.

So, how do you learn about yours? It would be wonderful if there were an easy way to count the eggs in your ovary, in much the same way that you could open a carton of eggs from the refrigerator and count how many good ones remain. Alas, there isn't, but there are several tests that, along with your age, offer the best tools currently available to estimate your remaining pool of viable eggs.

Unfortunately, none of the tests is ideal, and there is no consensus among physicians as to which are the best. However, there is general agreement that a woman's increasing age will affect the quality of her eggs, and that she should have at least two or three different tests done to get a better indication of the number of viable eggs remaining. In any case, even if your test results show you have a diminished ovarian reserve, this should not be the sole criterion used to deny you access to

IVF or other treatments. If it is, you can probably find another clinic that will work with you.

The list of tests below is in approximate order of most predictive:

Antral Follicle Count

This is one of the few exams in which a radiologist can actually pinpoint how many immature resting (antral) follicles are available to develop in that specific cycle. The higher the number observed in the first few days of a cycle, the better the prospects for IVF (more than 10 is good, while fewer than 5 is problematic). And because that number stays fairly stable month to month, it's usually considered as accurate as any biochemical test of your ovarian reserve and future fertility.

Antimullerian Hormone (AMH) Test

This blood test analyzes levels of the antimullerian hormone, a substance secreted by the cells of the developing preantral and antral follicles (the immature follicles). It can be performed at any time during the cycle, but, as with the FSH test below, clinics should use age-specific parameters to get an accurate reading.

Follicle Stimulating Hormone (FSH) Levels

This exam, usually done on Day 3 of the cycle, is the most commonly administered test, though its results are somewhat counterintuitive. Obviously, it tests for your FSH levels, but the higher the number, the more problematic it is for a woman desiring pregnancy. This is because a higher level means that her body is working harder and harder, releasing more and more FSH just to get the remaining follicles to mature. However, it's also worth noting that while a high level of FSH may indicate a poor ovarian reserve, a normal level of FSH still doesn't tell us anything about the *quality* of the remaining eggs.

Note: Antral follicle count and the AMH test are considered the most accurate and promising, while FSH testing is still the most prevalent. See the [chart](#), which gives more detailed information on what these tests are, why they are used, and what they reveal.

Clomiphene Citrate (Clomid) Challenge Test

The purpose of a Clomid challenge test is to determine how efficiently the ovaries are working. A healthy ovary requires only a small amount of FSH to stimulate the follicles to mature an egg. Ovaries that are not functioning optimally, on the other hand, require substantially higher levels. Thus, having elevated levels is considered an indicator of poor ovarian function, though having normal levels does not necessarily guarantee normal ovarian function. Alas, such is life.

I include this test because it is still performed in many clinics, but it's not considered any more predictive than the FSH test alone. Moreover, it's more invasive, time-consuming, and expensive, and there are often side effects from the drugs.

Estradiol and Inhibin B Test

These two tests are occasionally given, but I won't cover them here, since all the ones discussed above are considered much more reliable.

Home Ovarian Reserve Tests

As of this writing, these tests are not considered accurate enough for diagnostic use.

Now for Some Good News

An exciting development is the recent discovery that beyond the age of the eggs themselves, the quality of the ovarian environment in which those eggs mature is also of crucial importance. The potential implications of this for older women or those who are going through premature ovarian aging are profound, because it's now known that physician-prescribed dehydroepian-drosterone (DHEA) is a powerful hormonal supplement that increases androgen levels in women with diminished ovarian reserve.

With an improved androgen-rich ovarian environment, both the number and quality of eggs that such women produce often goes up dramatically. What this means is that as the relevant technologies advance, your ovarian reserve could be approaching depletion, but you might still have a good chance of getting pregnant using DHEA and

your own eggs, most likely through IVF.*

OVARIAN RESERVE TESTS

	Antral Follicle Count	Antimüllerian Hormone (AMH)	Follicle Stimulating Hormone (FSH)																				
Type of test	Vaginal ultrasound	Blood test	Blood test																				
When test is done	Day 3 of cycle	Anytime	Day 3 of cycle																				
What is being measured or observed?	The tiny (2 to 10 mm) immature resting antral follicles	The hormone secreted by the immature resting preantral and antral follicles	The hormone released by the pituitary gland at the beginning of every cycle, which stimulates the maturation of the resting antral follicles. These follicles contain one egg each.																				
Rationale	<p>These follicles are the ones that mature in response to FSH. They have the potential to develop into the dominant follicle (20 to 22 mm), which is the one that holds the egg which will ovulate that cycle.</p> <p>This test is done to determine if a woman would be a good candidate for IVF (i.e., whether she has enough eggs to stimulate). It is also done for those in their early 30s or younger to get an idea of their future fertility. The higher the antral follicle count, the better.</p>	<p>AMH blood levels are thought to reflect the size of the remaining egg supply, and decrease as a woman ages. So in this case, the <i>higher</i> the number, the better.</p> <p>Ironically, though, women with Polycystic Ovarian Syndrome tend to have exceedingly high levels because they have an inordinate amount of primordial follicles.</p>	<p>As a woman's ovarian reserve starts to be depleted, the pituitary senses the lack of estrogen and pumps more and more FSH in order to stimulate the ovaries to produce more follicles. In essence then, high FSH signifies low ovarian reserve, so the <i>lower</i> the number, the better her ovarian reserve.</p>																				
What the results mean	<p>The more antral follicles you have, the more eggs you can produce that cycle. If you have 6–10, you would be expected to have a normal response to ovarian stimulation prior to IVF.</p> <p>For younger women, the greater the count, the more years of fertility you likely have left.</p>	<p>Parameters for normal ovarian reserve are given below (using age-specific levels, but keep in mind that each clinic's values may be slightly different).</p> <table border="0"> <tr> <td>Age</td> <td>ng/mL</td> </tr> <tr> <td>Below 33</td> <td>2.1</td> </tr> <tr> <td>Between 33–37</td> <td>1.7</td> </tr> <tr> <td>Between 38–40</td> <td>1.1</td> </tr> <tr> <td>Over 40</td> <td>0.5</td> </tr> </table> <p>So, for example, a normal AMH level of .9 in a 42-year-old might reflect premature ovarian aging if found in a 32-year-old.</p>	Age	ng/mL	Below 33	2.1	Between 33–37	1.7	Between 38–40	1.1	Over 40	0.5	<p>Parameters for normal ovarian reserve are listed below (using age-specific levels, but keep in mind that each clinic's values may be slightly different).</p> <table border="0"> <tr> <td>Age</td> <td>mIU/mL</td> </tr> <tr> <td>Below 33</td> <td>Under 7.0</td> </tr> <tr> <td>Between 33–37</td> <td>Under 7.9</td> </tr> <tr> <td>Between 38–40</td> <td>Under 8.4</td> </tr> <tr> <td>Over 40</td> <td>Under 8.5</td> </tr> </table> <p>So, for example, a normal FSH level of 8.3 in a 42-year-old might reflect premature ovarian aging if found in a 32-year-old.</p>	Age	mIU/mL	Below 33	Under 7.0	Between 33–37	Under 7.9	Between 38–40	Under 8.4	Over 40	Under 8.5
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Comments	<p>This is the one test that is a real-time view of the actual follicles inside your ovaries, as opposed to just hormones your body produces.</p> <p>It can also be given to women in their early 30s or younger at any time in their cycle (even if they are on the pill), in order to estimate how many years of fertility they have left.</p>	<p>This is considered more accurate than the FSH test, because it reflects the number of the tiniest preantral follicles, which is the majority of follicles in the ovary—those that would not even be available for FSH stimulation during any given cycle.</p> <p>It is one of the most accurate tests as long as the results are based on age-specific cutoffs. Even with undetectably low levels, though, a woman can still conceive if given DHEA supplementation along with appropriate ovarian stimulation before IVF.</p> <p>Unfortunately, the test seems to lose its prognostic ability in women over 42.</p>	<p>This is the most common test done, but it's not as predictive as the other two. FSH bounces around quite a bit as women get older, but the one adage that is true is that your ovarian reserve is only as good as your worst FSH level.</p> <p>In addition, while a high level of FSH usually indicates a low ovarian reserve, a normal level does not necessarily indicate a good one (so it may be necessary to have at least one or two more of this test done). Finally, the FSH test is only reliable if the results are based on age-specific cutoffs, such as those above.</p>																				

✂ WAYS OF RESOLVING INFERTILITY

1. Medical Therapy

Whenever any drug is prescribed, you should always verify with your physician precisely what it is for and what the potential side effects are. Basically, there are three different types of fertility drugs: those that stimulate ovulation, those that block production of hormones, and those that facilitate conception and support pregnancy.

a. Drugs to Stimulate Ovulation

The most commonly prescribed drug to induce ovulation is Clomid. It's considered less invasive than other ovulatory drugs, and in principle, is prescribed when a woman is either not ovulating at all or only sporadically. It's also used when she has a short luteal phase, with the rationale being that even though a woman is ovulating, a compromised luteal phase is often a reflection of the entire ovulatory sequence. In reality, Clomid is often prescribed as a matter of routine even when the woman's fertility problem is not known.

Another ovulatory drug is letrozole (Femara). It works differently, clearing from the body more quickly, and doesn't dry up cervical fluid the way Clomid does. But it hasn't been studied for as long as Clomid has, so it's not yet clear if it's completely safe.*

If neither of those is effective, your doctor may prescribe pituitary hormones (gonadotropins) through daily injections, so you must be carefully monitored with ultrasound and laboratory testing. In addition, there is a significantly increased chance of multiple births, as well as a possibility of developing ovarian hyperstimulation.

b. Drugs to Block Production of Hormones

Occasionally, it's necessary to suppress ovulation in order to abate conditions such as endometriosis. Women are typically prescribed these drugs for about six months or longer, after which they are then encouraged to

try to get pregnant. They are also used in conjunction with high-tech treatments.

Certain drugs are prescribed because some women have an excessively high level of hormones that may disrupt their normal ovulatory cycle. For example, Parlodel is used to reduce prolactin, the hormone that normally circulates in women who are breastfeeding, but it can also suppress ovulation in women who are not.

c. Drugs to Facilitate Conception and Support Pregnancy

Women are often prescribed Clomid to induce ovulation, but as mentioned above, it has the unfortunate side effect of drying up necessary cervical fluid. In these cases, estrogen can be prescribed along with Clomid to counteract its drying effects. But estrogen taken *without* ovulatory drugs can ironically have an antiestrogenic effect that even further dries cervical fluid.

Progesterone is often given to support a short or insufficient luteal phase. It's administered by injections, oral tablets, vaginal suppositories, or creams. It acts to prevent a newly pregnant woman from menstruating before the egg has had a chance to implant, thus decreasing the odds of a miscarriage.

2. Artificial Insemination (AI) and Intrauterine Insemination (IUI)

These are the simplest of the assisted reproductive technologies. AI typically involves using a catheter to gently insert sperm just outside or within the cervix, whereas IUI involves placing the sperm through the cervix and directly into the uterus. For both techniques, the sperm may be that of your partner or a donor. Nowadays, IUI is the preferred choice because it more effectively bypasses numerous potential fertility problems, including low sperm count or poor sperm motility, antisperm antibodies, poor-quality cervical fluid, and unexplained infertility

ARTIFICIAL INSEMINATION AT HOME

Artificial insemination is one of the few fertility procedures that you can do in the privacy of your own home. And, though most of you will choose a clinic so that you're ensured that everything is done correctly, there are times when you may prefer a warmer atmosphere, especially:

- when you want to maintain the intimacy that is lost in a medical office.
- when your fertility is fine, but your partner has ejaculation difficulties that you would prefer to deal with privately.
- when your partner will be gone during your most fertile days.
- when you are single or your partner and coparent is another woman.

Where sperm can be placed

Technically, there are three different types of artificial insemination, depending on where the sperm is inserted inside the woman's body:

- intravaginal insemination (IVI),
- intracervical insemination (ICI), and
- intrauterine insemination (IUI).

However, IUI should absolutely not be done at home, since it could lead to a serious pelvic infection if performed in a nonsterile environment.

The two choices of sperm

There are two types of sperm that can be used: fresh or frozen. As with everything in life, there are trade-offs for each. The benefits of fresh sperm are that the quantity and quality are better, since there are usually more sperm in a typical ejaculation, and they don't need to survive the thawing process. In addition, of course, using fresh sperm is less costly because there are no sperm to purchase or storage fees to pay. If you're with your male partner, fresh is the way to go, and it's hardly an inconvenience for him!

But if for whatever reason you are using an unknown donor, frozen sperm has many benefits as well, including the fact that there is a reduced risk of passing on a sexually transmitted infection (assuming the

sperm bank screens for them). In addition, of course, the donor can be anonymous and doesn't need to be geographically close to you.

Sperm washing

Frozen sperm can be washed in a clinic with insemination still taking place at home. (The process is described [here](#).) But it's not necessary to wash fresh sperm if they are only deposited in the vagina or right in the open and fertile cervix. Obviously, in traditional intercourse, sperm are never washed beforehand!*

Using a clinician

You may find that hiring a nurse-midwife or other health practitioner to perform the insemination is the ideal situation, offering both the comfort of your home and the expertise of a qualified practitioner for peace of mind. Of course, you'd want to verify that whomever you hire is experienced in such procedures.

Timing guidelines

When performing artificial insemination at home, use the same guidelines that you would with traditional intercourse: Ideally, your partner or donor should abstain for two days prior to providing the sperm, but not more than four days. If using fresh semen, it's best to use it as close as possible to accessing it, ideally within a few minutes of ejaculation. If using frozen sperm, the semen-containing vial should be thawed out for about 30 minutes, until it turns liquid. At that point, the vial should be warmed to body temperature in your hands or under your arm for a few additional minutes before inseminating.

You will want to insert the sperm into the vagina on a day when you have the best quality cervical fluid, ideally as close to the Peak Day as possible. And, if you can, do so again each morning, up through the day of the thermal shift, which may just be the next day. You can use either a nonlatex needleless syringe or a nonlatex sperm cup or menstrual cup to insert the sperm.

Resources for performing home inseminations

For more detailed guidance than I can offer here, there are a number of

websites you can google that provide very clear instructions on how to do artificial insemination at home.

3. Surgery

These days, surgery means not only traditional cutting with a scalpel but also making tiny incisions using a laser. Surgery may be performed to correct obstructions such as tubal scarring and cervical polyps, as well as to remove adhesions such as those caused by endometriosis and scarring from pelvic inflammatory disease. Finally, it can be used to remove growths such as fibroids in the uterus. While the prospect of undergoing an operation is admittedly not pleasant, advances in technology do mean that many procedures can now be done on an outpatient basis.

4. Assisted Reproductive Technologies (ART)

These procedures usually involve removing eggs from a woman's ovaries, fertilizing them with sperm in the laboratory, and implanting the resulting embryo back in the woman's body. They used to involve several variations of that basic concept (which is why it was called by the plural "technologies"). But today, in vitro fertilization (IVF) has become the dominant or even exclusive procedure at most fertility clinics. So ART itself has generally come to primarily refer to IVF.*

When it was first developed back in the late 1970s, IVF was a miracle of science and considered revolutionary. Now, decades later, the basic procedure remains the same, though many of its individual steps consist of ever-evolving alternatives. Regardless, IVF is performed for numerous fertility conditions, including ovulatory problems, blocked tubes, advanced maternal age, male-factor issues, and, of course, unexplained infertility.

The Steps for IVF

In considering this technology, you should be aware that it involves a series of procedures that can be both physically and emotionally uncomfortable.

The following is how an IVF procedure basically progresses, but keep in mind that there are new options continually emerging for every step:

1. Hormone Suppression

The woman takes drugs over about three weeks in order to suppress her normal ovarian function.

2. Ovarian Stimulation

She is administered a series of injectable hormones such as Pergonal for about 8 to 12 days, to stimulate her ovaries to mature multiple eggs.*

3. Sperm Washing

The man's sperm are washed to improve their quality. The process basically separates the sperm from the semen and removes chemicals that may be causing adverse reactions in the uterus. The procedure enhances the fertilizing capacity of the sperm.

4. Egg Retrieval

A dozen or so matured eggs are aspirated from the woman's artificially stimulated ovaries with a vaginal, ultrasound-guided needle.

5. Egg Fertilization

Numerous eggs are fertilized in the lab, usually with her own eggs and her partner's sperm, but occasionally with either donor eggs or donor sperm, as discussed after the list of these steps.

6. Intracytoplasmic Sperm Injection (ICSI)

In many cases, a fine needle is used to insert the sperm "directly into the egg, as discussed in the [IVF and the Use of ICSI section](#) later on."

7. Preimplantation Diagnosis

The resulting embryos are often examined through sophisticated tools that ultimately screen for those that are free of chromosomal defects. Variations of these techniques are discussed [here](#).

8. Embryo Transfer

One or more of the embryos are returned to the uterus through a narrow

catheter inserted through the cervix, where they will hopefully succeed in implanting and ultimately lead to the birth of a healthy baby.

9. Pregnancy Testing and Confirmation

About two weeks after the transfer, a blood test will be taken to confirm pregnancy. If it's positive, an ultrasound will be performed several weeks later.

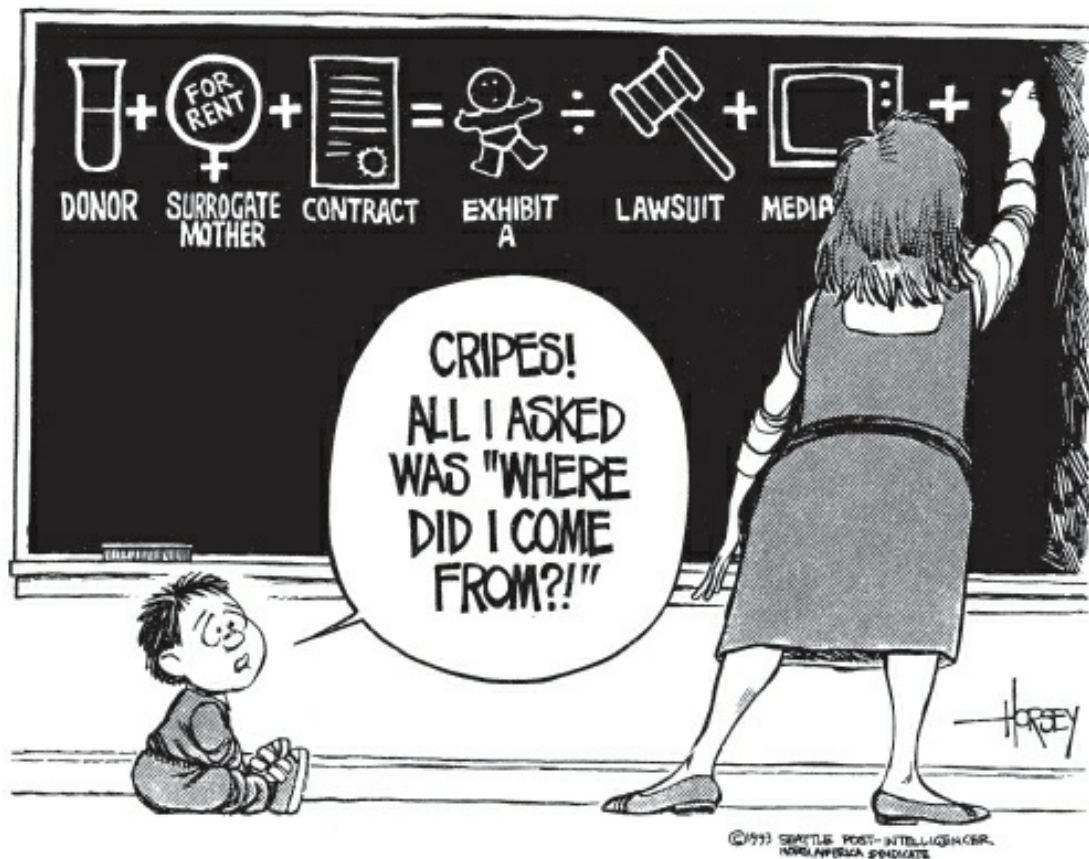
IVF and the Use of Donors

If men are infertile or unable to use their own sperm for whatever reason, donor sperm are often used with either artificial insemination or IVF. If women are unable to use their own eggs (usually due to their diminished ovarian reserve), they can use IVF with donor eggs from other women who are often younger. These eggs are fertilized with their partner's sperm and placed in their uterus in the same way that traditional IVF works. Both sperm and eggs can be chosen from donors with similar physical attributes as well as the same ethnic and religious backgrounds as those of the couple wishing to conceive.

With this option, even women with a poor ovarian reserve are often able to experience the joys and bonding of a normal pregnancy and delivery. You can choose to receive the egg of a screened but anonymous donor, or even use the eggs of a close relative or friend. Of course, there are profound implications to the procedure. Besides the obvious issue of the child not being biologically related to you, there are other factors to consider. For example, would you be comfortable if the child carries your partner's genes but not yours? And would you want to tell your child? Ultimately, the option is very promising, but not one that should be taken lightly.

Couples can also use donor *embryos*, which are already carefully screened for both physical attributes and potential problems. One of the benefits of choosing this route is that it might be more psychologically appealing, since both partners would know that the child isn't biologically related to either of them, so it might feel more equitable. In addition, it's more affordable, because it doesn't involve as many steps as traditional IVF. Finally, many couples may feel better knowing that they have chosen an

embryo from a couple who clearly wanted to be parents and went to great lengths to achieve that goal.



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IVF and the Use of ICSI

Intracytoplasmic sperm injection (ICSI) is a procedure in which a single sperm is inserted directly into the ova through the assistance of high-tech instruments. One of the advantages of ICSI is that the healthiest-looking sperm can be selected for the process. After fertilization is achieved, the newly created embryo is placed in an incubator for about 2 to 4 days before it is inserted back into the woman's uterus.

ICSI was initially developed for those conditions in which the man's sperm is severely compromised, or had been unable to fertilize an egg in previous IVF attempts. But now at least half of all IVF procedures incorporate it, regardless of what the actual cause of the infertility. The

rationale is that since IVF success rates appear to be higher with it, its use could spare couples the emotional and financial burden of additional IVF attempts.

IVF and the Use of Preimplantation Diagnosis Technologies

More than half of all embryos produced during IVF are chromosomally abnormal, and thus often incapable of successfully implanting in the endometrium. This explains why doctors used to return five or more embryos to the woman's uterus, with the rationale that maybe one or two would ultimately implant. Yet, as you know, sometimes three, four, or even all five would take, dramatically increasing the risk to both the mother and her babies.

Today, however, there are a variety of sophisticated and improving technologies that allow doctors to choose the healthiest embryo of the group to return to the womb. The most important and widely known of these is Preimplantation Genetic Diagnosis (PGD). This involves an intensive examination of the newly formed embryo at the cellular level, specifically to look for the genetic markers of various diseases such as cystic fibrosis and muscular dystrophy, which could cause problems both in pregnancy and beyond.

While PGD is a remarkable technology that can improve the odds for women suffering from recurrent miscarriages, it's quite expensive, and moreover, it does not necessarily improve the pregnancy rate among women as a whole. (Indeed, one metastudy found that live birth rates overall actually declined, likely due in large part to the invasiveness of the embryonic biopsy, which is a part of this process.)

A similar technology with a slightly different goal is Preimplantation Genetic Screening (PGS). This procedure is focused not so much on any specific diseases, but rather on filtering out embryos that have an abnormal number of chromosomes—a condition which is also called aneuploidy. This is crucial since an abnormal number greatly increases the risk of both birth defects and miscarriage. (As you hopefully remember, a healthy embryo should have 23 pairs of chromosomes.)

As with PGD, PGS is a procedure that appears to be getting better, with its proponents claiming that it now results in significant improvements in the live birth rate. But again, it can add several thousand dollars to the cost of IVF, and as of this writing, there haven't been enough studies on the newest version to see how well it's truly working (the latest generation of PGS involves testing on 5-day-old embryos with over 100 cells, whereas previously, testing was done on 3-day-old embryos containing only 8 cells).*

There are two other related technologies that have emerged over the last few years and will likely become much more widely used in the years ahead. One is next-generation DNA sequencing (NGS), which is also used to count the number of chromosomes that a preimplanted embryo has. Sophisticated DNA sequencing machines are used for the task, which can make this technology both faster and cheaper than PGS or PGD, while still being as accurate.

The other one is a new imaging technology designed to take time-lapse images of the preimplanted embryo from the time of conception to just before transfer, and, as with the other technologies above, the ultimate goal is to ensure selection of the healthiest possible embryo. There are currently two variations: one is the EmbryoScope, which basically functions as a type of IVF incubator with a built-in camera. The other is the Eeva test (for Early Embryo Viability Assessment).

Both are noninvasive and use sophisticated software to monitor various parameters for embryo health. Again, though, there are few studies as of this writing that can confirm their effectiveness in raising pregnancy and live birth rates. But regardless, and as with *all* these new technologies, you should always ask your clinician to explain their pros and cons for your particular condition.

IVF and the Next Potential Breakthrough

Finally, it's worth noting here that with continued advances in biotechnology, some scientists believe we will one day reach the point where all ovulatory drugs will be unnecessary, since it will be easier to retrieve immature oocytes directly from the ovaries through a procedure using fine-needle aspiration. They would then be matured in vitro before being fertilized through standard

IVF. Indeed, this type of in vitro maturation (IVM) is already available at certain clinics.

However, it's expensive and its success rates appear to still be well below those of IVF using eggs stimulated through traditional ovulatory drugs. In addition, as of this writing, the technology is still only recommended for women with certain disorders, such as PCOS, those at risk for ovarian hyperstimulation syndrome, and those with estrogen-sensitive cancers. Nevertheless, IVM is a technology with great potential in the years ahead, and so I encourage you to keep current on it if you are considering IVF.

TREATMENT OPTIONS FOR WOMEN WITH PCOS

As women's health conditions go, PCOS can be one of the most emotionally painful because, in addition to all of the overt symptoms and health risks that women with this condition may experience, they may also face serious challenges in trying to get pregnant. In fact, PCOS is one of the most common causes of female infertility. The good news, though, is that most women with this condition can get pregnant even with their own eggs, if given the right fertility treatment.

While PCOS is a significant health concern affecting so much more than just fertility, the reason it poses such a serious impediment to getting pregnant is the adverse effects of the polycystic ovaries themselves. In addition, women with PCOS often tend to:

- Stop maturing eggs at the earliest stage of development, so they rarely ovulate or have normal cycles. Instead, they develop multiple small cysts on the outer capsule of the ovaries that are technically "preantral follicles" (not to be confused with "prenatal"). They are usually discovered by clinicians during an ultrasound, and are often referred to as a "string of pearls" for the way they appear on the ovary (see picture [here](#) in the color insert).
- Have long intervals of time between menses, which, technically, are often not even true periods, which, as you know by now, is the bleeding that occurs about 12 to 16 days after ovulation.
- Have long cycles of sporadic patches of eggwhite, so they may feel they are constantly on the verge of ovulating (but a lack of a thermal shift confirms that they actually don't).
- Have abnormal ovulations if they do indeed ovulate, both in terms of the development of the egg as well as the corpus luteum.
- Have an increased risk of endometriosis, further compounding their chances of infertility.

Finally, you should also be aware that women with PCOS rarely benefit from ovulation predictor kits, since they produce numerous spikes of LH during their anovulatory cycles, and this often renders the kit results invalid.

THE GOOD NEWS: PCOS AND THE VARIOUS OPTIONS FOR GETTING PREGNANT

As mentioned in [Chapter 8](#), it's crucial that a woman's treatment plan be individualized for her

specific genotype, age, and hormone levels, even though for all the treatment options the primary goal is to induce a healthy ovulation. You may have already read about some of the treatments listed below in that chapter, but some will be different in the context of trying to get pregnant:

Natural Hormone Balance

Before trying any of the following treatments, you will probably want to do all you can to take control of your PCOS through the natural methods discussed in [Chapter 9](#), because, in addition to being healthier for you all around, they don't have any side effects.

Metformin (Glucophage)

This drug is an insulin-sensitizing medication that can be very effective in helping women with PCOS to develop more regular ovulatory cycles, but it can have quite a few side effects, including fever and back pain.

An Ovulatory Drug Such as Clomid or Letrozole

If Metformin doesn't help a woman to ovulate on her own, she will usually be prescribed a drug such as Provera to induce a "period," after which she can start taking an ovulatory drug such as Clomid or Letrozole, usually beginning on about Day 3 of the new cycle. Letrozole seems to work better for women with PCOS.

However, PCOS patients must be treated extremely carefully, because they have so many immature follicles that they need to avoid ovarian hyperstimulation syndrome, where too many eggs mature simultaneously. They are therefore usually given the least amount of ovulatory drug possible, gradually increasing the dosage until they eventually respond and release an egg. In fact, because of this risk, all women who are prescribed these strong ovulatory drugs should confirm with their doctors that they don't have PCOS before they take them, to better control for ovarian hyperstimulation.

Gonadotropins

If women are still unable to ovulate, they are often prescribed a gonadotropin, which is more potent and produces larger numbers of follicles, but poses an even higher risk for ovarian hyperstimulation. For this reason, most clinics will only prescribe these meds in combination with IVF, so that they can be monitored carefully and have only one or two embryos returned to the woman's uterus.

Ovarian Drilling and Ovarian Wedge Resection

As also mentioned in [Chapter 8](#), these two archaic-sounding treatments can actually be surprisingly effective for women with PCOS. In fact, some physicians believe that either ovarian drilling or ovarian wedge resection should be the first treatment tried if drugs alone don't work, though naturally, others feel it should be the last (alas, as you've seen, such is the nature of modern medicine). The theory behind each is that by removing a portion of the ovary, the androgen-producing follicles are diminished, thereby allowing for more normal cycles and ovulation. In addition, women opposed to IVF on religious grounds may find these procedures more acceptable.

Ovarian wedge resection is rarely performed anymore because it used to have a high

adhesion rate, and thus was widely seen as too risky a procedure. However, a growing number of surgeons are now being trained to use this technique with a very low adhesion rate. This can make it a preferable surgery, since it helps women to ovulate on their own while also addressing so many of the debilitating health effects of PCOS. If interested in pursuing this option, I encourage you to contact the Pope Paul VI Institute for the Study of Human Reproduction in Nebraska for a list of the surgeons they have trained in this procedure.

In Vitro Fertilization (IVF)

IVF, in conjunction with one or more of the ovulatory treatments listed above, tends to be quite successful for most women with PCOS. However, there are those who have a particular genotype who unfortunately tend to have a much lower success rate. These women tend *not* to be overweight, and may not even demonstrate signs of excessive androgens or other characteristics that are typically associated with PCOS. Yet they still develop polycystic ovaries at a younger age, so they deplete their ovarian reserve earlier, leading to premature ovarian aging.

✂ THE MAN'S FERTILITY WORKUP

When people think of fertility problems, they tend to think of it as primarily a woman's issue. But, as you know by now, fertility problems affect men and women equally. The reason a man should be tested first is that his own workup is fairly simple, cheap, and hardly uncomfortable! The foundation is the semen analysis, which is easily obtained by having the man ejaculate into a cup.

Remember that even though the analysis is usually referred to as a "sperm count," the expression is somewhat misleading. The count is only one facet of the whole analysis. As discussed in [Chapter 3](#), the key to judging a man's fertility is not so much to look at the total number of sperm per ejaculate, but rather the total number of those sperm that are of normal shape and motility.

Based on that analysis, a physician will be able to tell you whether your partner's sperm count is considered normal or subfertile. If the analysis shows a low count, he would likely have at least one more analysis performed a few weeks later in order to verify the results.

One additional investigation that is often done with the sperm sample is the sperm penetration assay, or the hamster egg penetration test (yep, hamster!). It's done to determine the fertilizing capabilities of a man's sperm. As the name implies, the sperm is placed immediately next to hamster eggs to see whether they can penetrate them, since such penetration generally correlates with how well sperm can penetrate human eggs.

Like any test, though, it's definitely not perfect. In fact, 5 to 10% of men whose sperm do not "pass the test" are still able to eventually impregnate their partners. And likewise, some men whose sperm do fine in the test are still unable to fertilize their partner's eggs. For this reason, some in the field believe it's a waste of money because it doesn't impart any additional information that isn't already available through a sperm analysis. However, it's considered fairly standard in a fertility workup, and should be taken for what it's worth.

Finally, many clinics now offer exams that test for the chromosomal integrity of sperm. The most common one is the sperm DNA integrity assay

(SDIA). This test is more likely to be performed if the semen analysis itself is abnormal, or in cases of unexplained infertility, but otherwise the test does not reliably predict treatment outcomes and is not widely recommended for routine clinical use.

Depending on the results of the semen analysis, the physician may perform a variety of other procedures. These include a physical exam to look for varicoceles, prostate problems, or testicular anomalies, as well as blood tests to ascertain hormone levels. In addition, the doctor may need to take semen cultures to determine the presence of sperm clumping (agglutination) or genital tract infections, as well as X-rays of the sperm-producing tissues. Once the source of the problem is identified, there may be a variety of treatments possible.

Correcting the Man's Basic Underlying Problem

As with women, the man's fertility may be improved simply by changing diet and eliminating the consumption of caffeine, nicotine, recreational drugs, and alcohol. Some people believe that acupuncture and naturopathic treatments as well as nutritional supplements may also be useful. Still, men facing infertility problems usually have a variety of overlapping symptoms that require medical intervention. While fertility specialists generally view male infertility as easier to detect but more difficult to cure than its female counterpart, it's also true that some of the more prevalent problems can be successfully treated.

In addition, various techniques have been designed to extract sperm from the vas deferens, the epididymis, and even the testicles themselves, allowing them to be used with ICSI (discussed earlier). This essentially bypasses virtually all forms of male infertility, though it must obviously still be used in conjunction with IVF. In any case, male infertility may be due to problems relating to any combination of the following:

- low sperm count (including morphology and motility)
- varicoceles
- damaged sperm ducts
- hormonal deficiency

- testicular failure
- sperm antibodies

Low Sperm Count

The most common cause of male subfertility is low sperm count, due to a variety of possible causes. Among these are hormonal deficiency, bacterial infections, and varicoceles, all of which may be treated by standard medical procedures, as discussed further below. Success rates vary depending on the cause. Unfortunately, low sperm counts often have no detectable source, though abnormal testicular maturation dating back to embryonic development is often suspected.

Regardless, it's possible that sperm production can be increased through the use of various fertility drugs such as Clomid, Pergonal, and HCG, all of which are more commonly associated with women's fertility procedures. In addition, low sperm counts can be treated with a variety of high-tech procedures to take advantage of the sperm that exist, and indeed, even men with zero sperm count have some promising options, as discussed [here](#).

Varicoceles

A type of varicose vein in the man's scrotal sac, varicoceles is often cited as the most likely cause of diminished sperm counts. Around 30 to 40% of all infertile men have them, though it's not clear how much impact, if any, they have on fertility. They almost always occur in the left testicle, since the spermatic vein enters the renal vein at a right angle on that side, allowing pressure to build. The most plausible reason why this would affect sperm is that the pooled venous blood overheats the sperm production centers of the testicles. And, as you know, heat can kill sperm.

Either general or local anesthesia can be used to treat them. The effective sperm count improves in the majority of infertile men after surgery, but only half of these men typically go on to impregnate their partners. This would suggest that male infertility is often caused by a series of overlapping problems. Regardless, you shouldn't forget the general principle that it takes about three months for sperm to mature, so the man would not experience

any improvement in his sperm count for at least that period of time.

Damaged Sperm Ducts

Blocked sperm ducts may account for about 10 to 15% of all male infertility. Scarring in the vas deferens may prevent the sperm from reaching the cervical fluid as it flows through the urethra. This is often caused by an infection that is the result of an STI. The vas deferens may also be blocked by a varicocele that is pressing against it. Some of these cases can be corrected without surgery, but most would require a minor operation to eliminate the blockage or scarring. Microsurgery is generally very effective in restoring fertility to men whose only problem is obstruction of sperm outflow.

Thankfully, it's now possible to avoid the invasiveness of tubal surgery by removing sperm directly from the man's epididymis. This is done through two procedures, called microsurgical epididymal sperm aspiration (MESA) and percutaneous epididymal sperm aspiration (PESA). In PESA, an ultrathin needle is used to retrieve the sperm. It's also possible for sperm to be removed from the vas deferens in similar but somewhat less common procedures—microscopic vasal sperm aspiration (MVSA) and percutaneous vas deferens sperm aspiration (PVSA). All of these procedures are usually done in conjunction with IVF and ICSI.

Hormonal Deficiency

The next most common cause of male subfertility is hormonal deficiency. It's usually due to an insufficient or erratic release of FSH and LH, the sex hormones necessary for sperm production (these hormones, discussed extensively throughout this book, are also present in the male reproductive system). If hormonal deficiency is causing a low sperm count, it may be possible to treat the problem with gonadotropins. Male hormonal problems are generally complex and difficult to cure, though the chances of success are much greater when the problem results in marginal sperm count, as opposed to the complete cessation of sperm production.

Testicular Failure

Another fairly common problem is testicular failure, in which the amount of reproductive hormones being released from the pituitary is sufficient, but the testes fail to respond appropriately and therefore do not produce sperm. The causes for this condition range from illnesses such as mumps and various STIs to physical traumas caused by surgery, tumors, and drugs. It may even be caused by a sports injury, in which a sudden blow to the testes can lead to reduction in the flow of oxygen to the spermatogonia, causing the cells to die. Unfortunately, there appears to be no effective treatment that will improve sperm production in cases where the man truly has no sperm.

However, if there are some sperm, fertility drugs may be able to increase the numbers. And, as mentioned earlier, it's now possible to retrieve sperm directly from the testicles even when the man's *count* is deceptively zero! In two relatively new and remarkable procedures, called testicular sperm extraction (TESE) and testicular sperm aspiration (TESA), special high-powered needles and delicate microsurgical instruments take sperm directly from the testicles.

There is also a new procedure used by some clinicians called testicular mapping, in which fine needle aspiration (FNA) is used to see what areas of the testes, if any, are producing sperm. This is a significant breakthrough, since many men may appear to have no sperm at all, but in fact have some which are hidden in certain testicular "pockets." Testicular mapping currently takes about 45 minutes and is done under local anesthesia, but in the future, a less invasive technique called metabolic mapping may be able to ascertain the location of the sperm through MRI scanning.

Finally, there are some men who truly have no mature sperm at all, but they may have tiny round sperm buds, called spermatids, which have not yet developed a head or tail. Remarkably though, clinicians have harvested and successfully matured them before using them with ICSI and IVF. Unfortunately, this technology is still experimental and the rates for a successful pregnancy are still very low.

So, let's see . . . MESA, PESA, MVSA, PVSA, IVF, ICSI, TESE, TESA, FNA . . . OK, study up—test on Friday!

Sperm Antibodies

In some men, the problem is caused by production of antibodies to their own sperm, so that the immune system effectively destroys the sperm as soon as they are produced. This occurs in about 10% of infertile men, though the numbers may be higher among those who underwent a vasectomy and then reversed it. If a man has developed such antibodies, he may be prescribed steroids, which are potent drugs that suppress the immune system (clearly such treatment has its risks). There is also some evidence that adrenal hormones may restore fertility in certain cases.

Another option is to have the sperm washed, as discussed earlier. Basically, the semen is mixed with culture media in a test tube and then rapidly spun. Although it doesn't dislodge antibodies, it permits separation of the best swimmers, allowing for intrauterine insemination (IUI) high in the woman's reproductive tract. If IUI is unsuccessful, however, the couple can try IVF combined with ICSI, which is, in fact, the most common way of solving the antibody problem.

Finally, it's also possible that the woman may develop antibodies against her partner's sperm. If this problem is identified, there is a good chance that the clinician will recommend ICSI with IVF, since this is considered the most effective option in such cases.

The Bottom Line on Male Infertility

Many of the conditions discussed above as well as some less common fertility-related problems can now clearly be treated. And as the revolution in reproductive medicine continues, it now looks like there is even hope for those men who produce no sperm at all. Of course, these new technologies can be expensive and are not guaranteed to work for all men, but even in those cases where they don't, couples can still use a sperm donor for artificial insemination.

✂ THE LIMITATIONS OF CLINIC SUCCESS RATES

Although the advances in assisted reproductive technologies are real and promising, you still need to be wary of the success rates that clinics report, since they are notoriously inconsistent and often misleading. It's nearly impossible to compare their success rates in using ART, because there are so many confounding variables, such as the cause of infertility and numerous variations within the procedures themselves. In addition, many clinics have a lower age cutoff for women so that they may appear more successful than those that accept older women.

Finally, a straight pregnancy rate is often reported (whether a miscarriage results or not), even though it is the "take home baby rate" that is obviously more relevant for intelligently analyzing your options. Having said all that, for the most reliable comparison of clinics and technology success rates, you might want to explore either of the websites listed below:

- Society for Reproductive Technologies sart.org
- Centers for Disease Control and
Prevention cdc.gov/art/ARTReports.htm

✂ A FINAL WORD ON FAM, INFERTILITY, AND HIGH-TECH OPTIONS

Assisted reproductive technologies continue to make headline-capturing advances. While I believe that a low-tech option such as FAM is the preferred solution to infertility problems whenever possible, you should be aware of its limits. If you have not been able to get pregnant within about 4 to 6 cycles by timing intercourse perfectly with FAM, you should consider seeing a fertility doctor. Regardless, even if you can't have a baby through completely natural means, charting can certainly help you identify the problem and utilize the various solutions that modern medicine increasingly offers.

Dealing with Miscarriages

Alas, most of the high-tech procedures discussed in the last chapter, most of the high-tech procedures discussed in the previous chapter will probably not help if you are experiencing repeat miscarriages. For unlike any other infertility issue, this is not a problem of achieving pregnancy, but of keeping the embryo viable after conception has occurred. And as women age into their late 30s, miscarriages become among the most prevalent causes of infertility, with undetected ones probably composing the majority of fetal loss.

Fortunately, though, promising medical advances are being made even for those women who've already had several miscarriages in the past. Of course, before you can begin to seek treatment, you must first be aware that you are even having them. As you've already learned, charting can play a crucial role in this area. FAM can identify abnormally short luteal phases of less than 10 days that would make a successful implantation improbable. It can also warn of or detect miscarriages as they occur (as seen by at least 18 temps followed by dropping temps and bleeding).

Most women who discover they are getting pregnant but losing the embryo should be able to start trying to conceive again within a cycle or two. But keep in mind that each woman and situation is unique, so the length of time you may want to wait will depend on numerous factors, including how early in the pregnancy the miscarriage occurred, what actually caused it, what possible treatments your clinician will recommend for your situation (discussed later in this chapter) and, of course, whether you are emotionally prepared to try again.

Aside from the obvious steps you should take to make sure you are in the healthiest condition possible, I urge you to consult a qualified fertility specialist if you have had two or more miscarriages. Better yet, you should bring the doctor your Fertility Awareness charts. By doing so, you will not only feel more in control, but you may very well be expediting the process that leads to a healthy baby.

Deborah and Burt used FAM to get pregnant, but the pregnancy sadly ended in a miscarriage due to a blighted ovum (a situation in which a sac develops, but an embryo never does). Because they had no problem initially getting pregnant, they decided not to resume charting when they were ready to try again.

Deborah had one normal cycle following her miscarriage, but the cycle after that was extremely long and confusing to them. When she had spotting on Day 54, she didn't know whether it was ovulatory spotting, implantation bleeding due to pregnancy, or the signs of a possible miscarriage. She only realized then how frustrating it was to not have charted that cycle, because it left her completely in the dark. She got a pregnancy test, which came back negative. Of course, she still wasn't sure if the test was accurate, because she might have ovulated so late that the test could have indicated a false negative if her body had not yet had a chance to produce enough HCG to be detected.

As it turned out, Deborah was not pregnant. Either she didn't ovulate that cycle, or had an extremely delayed ovulation. She wanted me to mention their story because their confusion could have been eliminated had they simply charted. Needless to say, they learned from this experience how valuable charting is, even for those who seemingly have no problem getting pregnant. After waiting a few cycles, they tried again. This time they charted and were thrilled to discover they were pregnant through temps that remained above the coverline beyond 18 days.

📌 SYMPTOMS AND POSSIBLE MEDICAL RESPONSES

Before discussing the most common causes and treatments of recurrent miscarriages, you should be familiar with various potential warning signs that you are actually having a miscarriage, beyond just the drop in your temps after Day 18. Vaginal bleeding is of course the most obvious sign, though not all bleeding is a sign of a miscarriage. (In fact, about 20% of women have such bleeding during their first trimester, though less than half of them will miscarry.) However, if your bleeding fills more than one sanitary pad an hour, you should contact a clinician as soon as possible, especially if it's accompanied by serious cramping or abdominal pain. In addition, the box below includes a more comprehensive list of potential symptoms.

WARNING SIGNS OF A POSSIBLE MISCARRIAGE

- temps continuously falling after at least 18 days above the coverline
- red bleeding of any intensity
- cramping
- abdominal or pelvic pain
- sudden loss of pregnancy symptoms
- dizziness
- headache
- joint swelling
- excessive nausea or vomiting
- fever
- extreme or sudden fatigue
- fainting
- severe or sudden backache

Quite often, clinicians will perform an ultrasound to establish a firm diagnosis, and more specifically, to see if the pregnancy is still considered

capable of progressing to term. Often what appear to be symptoms of a miscarriage are not. Unfortunately, though, there is usually no way to stop most miscarriages once they've started.

As soon as you've had a miscarriage or are in the process of miscarrying, there is little medical treatment required in most cases. This is especially true if you're still in the first trimester and your doctor verifies that you have stable vital signs such as blood pressure and pulse, and you have no signs of an infection. However, in some cases, certain medications may be given orally or vaginally over several days in order to stimulate the passing of remaining embryonic tissue.

In addition, there are certain cases where doctors will recommend a surgical procedure called dilation and curettage (D&C), in which the cervix is dilated in order to use suction or a gentle scraping motion to remove the contents of the uterus. This procedure is often recommended when there is heavy bleeding or an infection, but if you don't have those symptoms, you should discuss your options with the clinician before agreeing to a D&C. This can be important because occasionally women feel that in retrospect, they would've preferred to wait for the spontaneous passage of their pregnancy at home.

Finally, women who've had a miscarriage should be prepared for a range of often difficult emotions that can last for several weeks or longer, and they should not hesitate to seek professional counseling if necessary. But most women will hopefully be able to take comfort in knowing that most of those who've suffered a miscarriage or even recurrent miscarriages are eventually able carry a pregnancy to term.

Of course, if you've had two or more, you should try to seek a diagnosis from a doctor experienced with treating recurring miscarriages. Your charts will likely be helpful for whichever clinician you work with, and in reviewing the most common causes and treatments below, you'll be able to better understand the possible issues you'll face and options you'll have as you try again for a healthy pregnancy.

COMMON CAUSES AND POTENTIAL PREVENTIVE TREATMENTS

Chromosomal Defects and the Promise of Preimplantation Genetic Diagnosis

Researchers have recently discovered that the majority of miscarriages are caused by chromosomal and genetic errors in the embryo. Most of these abnormalities increase as women age into their late 30s and 40s. In a process known as aneuploidy, the actual number and position of the chromosomes within the egg becomes defective, and the end result is an embryo that cannot be sustained through a healthy pregnancy.

Fortunately, and as mentioned in the last chapter, there is a continually improving process called Preimplantation Genetic Diagnosis (PGD) that enables clinicians to choose those embryos that are most likely to thrive throughout the pregnancy. Of course, PGD can be used only in conjunction with IVF, since the idea is to choose the healthiest embryos from perhaps a group of a dozen or more.

For those couples who've suffered several miscarriages, PGD can be a powerful tool by which to shift the odds back in their favor. However, it should not be performed without serious consultation with an experienced clinician. Aside from the expense, which can add several thousand dollars to the cost of an IVF procedure, the state of PGD technology is still such that not all chromosomal errors can be detected. In addition, there's a small chance that normal embryos might be mistakenly identified as defective. Nevertheless, the technology continues to advance and for many couples, the benefits clearly outweigh the costs and risks. The bottom line is that if you have suffered through two or more miscarriages, you should seriously weigh the pros and cons of PGD testing.

Of course, far from all miscarriages are chromosomal. In fact, if you're under 35, it could be just as likely that your miscarriage was caused by one of the following problems:

Infections

One of the surprising things about the role of infections in miscarriages is that the more common ones are not considered responsible. So, having a bad cold, the flu, or a fever during pregnancy is not likely to harm your fetus. But there are certain infections that might, including mycoplasma, toxoplasmosis, chlamydia, and listeria.

In addition, there are infections associated with specific procedures and sources that may cause a miscarriage, including those from a cervical stitch used to tighten a weak cervix or prostaglandins in semen during intercourse itself. If a cervical or semen sample reveals an infection, you and your partner may be prescribed an antibiotic.

Finally, certain viruses are dangerous during pregnancy, including the notorious German measles or rubella, as well as herpes (if the initial viral attack occurred during the first 20 weeks of pregnancy). Others that may also cause miscarriages include mumps, measles, hepatitis A and B, and parvovirus.

Endocrine (Hormonal) Problems

One of the most common hormonal problems leading to early miscarriages is that of an abnormal luteal phase. As you've read, in order for a fertilized egg to have a chance to implant and mature, the corpus luteum in typical cycles should maintain the latter phase of the cycle for at least 10 days. In addition, once pregnancy occurs, it must continue to live long enough for the developing placenta to take over the function of providing nutrition for the embryo. The corpus luteum should live about 10 weeks beyond conception, so if you had a miscarriage that was within the first few weeks of pregnancy, one of the first things the doctor might suspect is a corpus luteum deficiency.

Of course, you yourself should suspect a potential problem if your basal temps reflect a luteal phase of fewer than 10 days. If it does, your doctor will most likely perform a blood test and endometrial biopsy to confirm this. If you do indeed have a problem with progesterone production in the latter phase of your cycle, your doctor may prescribe a form of progesterone, to be taken as soon as you ovulate each cycle. (But remember that the best time to

test for a progesterone deficiency is either 7 days after your thermal shift, or through a Pooled Progesterone Test, as discussed [here](#).) Many doctors also prefer to prescribe an ovulatory drug like Clomid in the first phase of the cycle, in the hopes that it will promote an optimal ovulation and a healthy postovulatory progesterone level.

Uterine Abnormalities

One of the most common causes of miscarriages in the second trimester is regrettably referred to as an “incompetent cervix.” As the name implies, it is a weak cervix that tends to dilate before the fetus has reached full term. In addition, some women are born with congenital abnormalities of the uterus so that it is shaped in a way that the baby can’t grow big enough before it runs out of room, causing the cervix to dilate.

If your physician suspects that recurring miscarriages may be due to structural problems of your uterus, she may perform a hysteroqram—basically an X-ray that uses injected dye to determine its shape. Two other diagnostic procedures often used to view the uterus are a laparoscopy, in which a narrow tube is inserted through the navel, and a hysteroscopy, in which a similar device is inserted through the vagina and cervix. Both procedures allow the doctor to look inside the uterus.

One of the least-invasive treatments, especially in the case of a weak cervix, is to place a suture in it to prevent it from dilating prematurely. But if the uterus is malformed or has uterine adhesions, the condition can usually be successfully treated only through surgery.

Finally, if you have fibroids (or benign tumors) in or on your uterus, you are not alone. By age 40, about 40% of women have them. They generally don’t require any treatment unless they grow exceedingly fast or cause severe bleeding or pelvic pressure. Your physician will often recommend doing nothing, in the hope that the fibroids themselves will not interfere with the pregnancy, since their removal is often more invasive than necessary.

Antibodies and Other Immune System Risk Factors

One of the most serious types of problems implicated in recurrent

miscarriages is when the mother produces antibodies that, in essence, reject her own fetus. Through blood tests, tissue typing, or an endometrial biopsy, the doctor can determine if you are producing such antibodies, and, after a precise diagnosis is made, he may treat you with baby aspirin throughout your pregnancy to prevent blood clots, or even prescription antiinflammatory drugs to treat autoimmune problems such as rheumatoid arthritis or lupus. This is because if these conditions are not addressed, they can lead to the production of antibodies that can attack the uterus and the embryo's placenta.

In recent years, there's also been intensive research into the role that the unsettlingly termed "natural killer" or NK cells play in recurrent miscarriage, since it's known they are a major factor in the way the fetus and the mother interact biologically. Among possible treatments are the following:

- immunoglobulins, which act to absorb these excess killer cells;
- the drug Enbrel, which significantly reduces the activity of NK cells as well as certain other destructive immune system cells, including macrophages;
- certain steroids, which bind to NK cells and prevent them from increasing excess blood vessel growth.

Medical Disorders

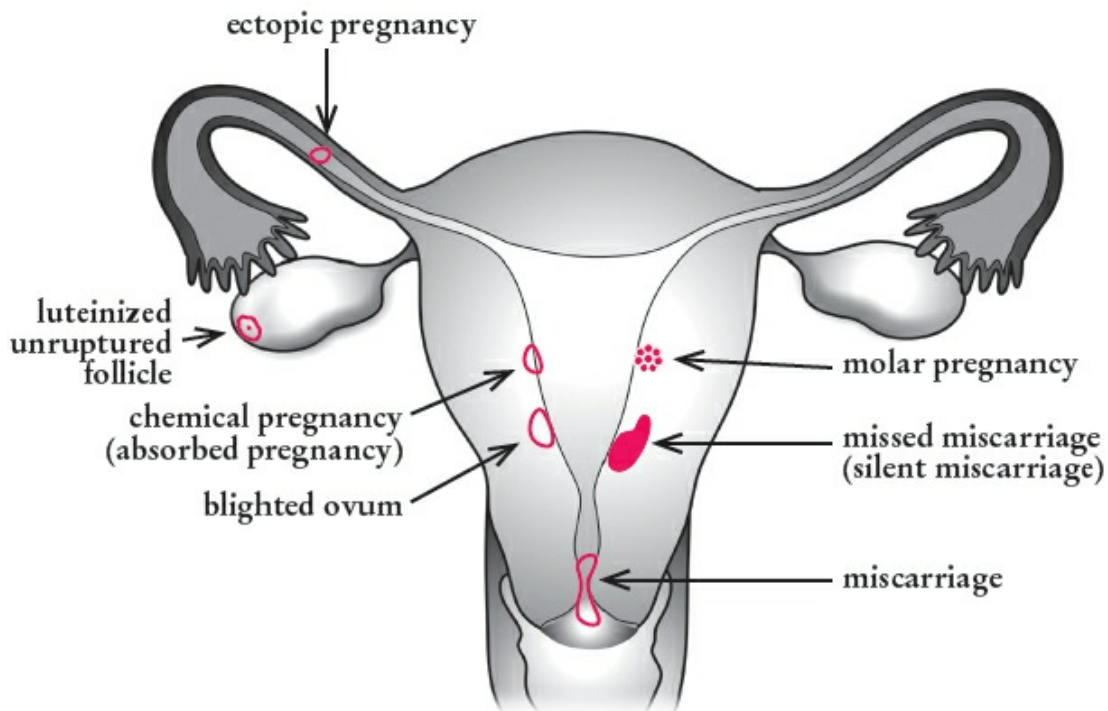
Finally, miscarriages occur more frequently in women who have medical conditions such as uncontrolled diabetes, thyroid disease, high blood pressure, or heart disease. If your physician diagnoses any of these, she may refer you to an internist for treatment before you attempt to get pregnant again.

♀ TYPES OF PREGNANCY LOSS BEYOND VAGINAL MISCARRIAGES

In addition to regular miscarriages in which the fetus is expelled through the vagina, there are a few other types you should be aware of, all summarized in the chart below.

CONTINUUM OF MISCARRIAGES

No conception occurred			Conception occurred, but did not lead to childbirth					Childbirth
False Positive	Luteinized Unruptured Follicle	Ectopic Pregnancy	Chemical Pregnancy (Absorbed Pregnancy)	Blighted Ovum	Molar Pregnancy	Missed Miscarriage (Silent Miscarriage)	Miscarriage	
A rare situation in which a pregnancy test reflects a pregnancy when there is not one.	A follicle that grows and develops but never releases an egg.	A pregnancy in which the fertilized egg attaches itself outside of the uterus (usually in the fallopian tube) and begins to grow.	A pregnancy that is so early that it is only detected through a urine or blood test before it ends in an early miscarriage.	A fertilized egg which implants in the uterus, but doesn't develop into an embryo.	A rare condition in which conception occurs, but instead of a fetus developing, abnormal tissue grows in the uterus.	A pregnancy in which the placental and embryonic tissues remain in the uterus, but the embryo never formed or died in utero.	The spontaneous loss of a pregnancy before the 20th week.	A healthy baby!



Getting the Expertise You Need

Solving the problem of miscarriage continues to be one of the great reproductive challenges today. Yet advances are continuously being made in the treatment of its most significant causes, so if you are dealing with recurrent miscarriages, I strongly encourage you to find a clinician who specializes in their treatment. Given the complexity of this issue, it's the most important step you can take toward solving the problem and hopefully having the child you want.

Idiopathic Infertility: Some Possible Causes When They're Not Sure Why

Undoubtedly, the most frustrating of all diagnoses is that of “idiopathic infertility,” a fancy way of saying, “We just don’t know.” Often though, what this really means is that diagnostic tests have not been thorough enough to identify one or more causes. In fact, infertility is frequently the result of several issues, and thus you might have been treated for one, only to find that you still can’t get pregnant. For this reason, among others, the causes often elude even the best practitioners in the field. However, renowned experts have zeroed in on a variety of conditions that likely cause the vast majority of these exasperating cases.

This chapter will go into further detail about certain conditions that may have been overlooked or not discovered in the battery of tests that you’ve already had done. Most of these are discussed elsewhere in the book, but are more fully covered here in the context of unexplained infertility.

The following are the five suspected causes of idiopathic infertility discussed in this chapter:

- Premature Ovarian Aging (POA)
- Disorders of (seemingly normal) Ovulation
- Endometriosis
- Fallopian Tube Issues
- Immunological Infertility

✿ PREMATURE OVARIAN AGING (POA)

Women in their early 30s and sometimes even younger may be given the devastating news that they can no longer get pregnant because their FSH levels are too high. Yet FSH is notoriously inconsistent from cycle to cycle as women age. The only thing that is certain is that a woman is no longer fertile if she has gone through menopause, which is defined as having gone an entire year without having had a period. So, even if a woman has high FSH levels and is still menstruating, albeit irregularly, there is still hope.

One of the most frequently overlooked diagnoses of female infertility is Premature Ovarian Aging, which is basically having too few eggs relative to what is expected at a particular age. As you will recall, the viable eggs you have left in your ovaries are known as your ovarian reserve. It naturally declines with age, but it's the extent to which it does so in *younger* women that defines whether or not they are experiencing POA. Approximately 10% of women face this condition.

The timely identification of POA is crucial, because once ovarian reserves start to decline, they will only continue to do so. If women are not properly diagnosed, they may be unable to conceive even with assisted reproductive technologies. The proper diagnosis is usually made using *age-specific* hormone values as opposed to universal cutoffs typically used at many clinics. A woman is presumed to have premature ovarian aging if FSH levels are too high or Antimullarian Hormone (AMH) levels are too low. In fact, AMH, especially in younger women, is considered a better predictor of ovarian reserve.

So, for example, a 40-year-old may have an AMH level that would be normal for *her* age, but in a 28-year-old would reflect premature ovarian aging. Unfortunately, above age 42, this hormone loses its predictability.

The good news is that with an accurate diagnosis, women respond surprisingly well to a comprehensive treatment approach that usually involves the following three elements:

- DHEA supplementation
- proactive ovarian stimulation

- individualized management of other health conditions associated with their POA

With this strategy, women can often get pregnant using their own eggs, and even better, their miscarriage rate is actually lower than normal. However, for such an approach to be effective, it's crucial that women receive the correct individualized plan of DHEA supplementation for the appropriate length of time, and that ovarian stimulation is precisely adjusted to the individual woman's needs.

It's imperative that women are properly diagnosed, because there is another related condition that POA is often confused with, briefly discussed next.

Premature Ovarian Aging (POA) and the Confusion with Primary Ovarian Insufficiency (POI)

Primary ovarian insufficiency is also a loss of ovarian function before age 40, and can even affect teens. Unlike POA, though, a diagnosis of POI is usually made if FSH levels are *above* 40 miU/ml, measured twice at least one month apart. But POI is rarely an idiopathic cause of infertility, because women who stop having periods or have menopausal symptoms by age 40 will usually seek a medical diagnosis. Those with this disorder are often put on hormone therapy until about age 50, since the most serious symptom is diminished estrogen, which can lead to high risk for health issues such as osteoporosis and heart disease.

In addition, primary ovarian insufficiency, unlike premature ovarian aging, may emerge suddenly, or more gradually over several years, with the appearance of irregular cycles along with classic premenopausal symptoms such as hot flashes and vaginal dryness. Unfortunately, women with POI will rarely be able to get pregnant with their own eggs, but can often carry a baby to term with donor eggs, using IVF.

The chart below summarizes how to distinguish between POA and POI:

Premature Ovarian Aging (POA)	Primary Ovarian Insufficiency (POI)
-------------------------------	-------------------------------------

Younger than 40	Younger than 40, and can occur even in teens
FSH high but below 40 miU/ml	FSH above 40 miU/ml
Often no symptoms	Irregular or nonexistent cycles, hot flashes, or vaginal dryness
Highest miscarriage rate of any infertility diagnosis if untreated	Only a small chance of getting pregnant
May be able to get pregnant with <i>own</i> eggs, with the supplementation of DHEA before IVF	Good chance of getting pregnant with <i>donor</i> eggs and IVF

✂ DISORDERS OF (SEEMINGLY NORMAL) OVULATION

As you know by now, charting can help you observe major hallmarks of your cycle, most notably if you are ovulating, whether you are producing fertile-quality cervical fluid, and whether your luteal phase following ovulation is long enough. However, occasionally, when a woman is not able to get pregnant even after charting and medical diagnostic tests indicate that she is ovulating, it may be time to delve deeper into the possibility of ovulatory dysfunction.

The fact is that even though regular cycles usually mean normal ovulation, it may not always be the case. In women dealing with infertility, up to half of those with apparently regular cycles are not ovulating normally. And thus for those women, the traditional means of testing for ovulation may not be enough. As you'll recall, these include the following:

- biphasic BBT pattern
- positive ovulation predictor kits
- midluteal phase progesterone levels
- normal endometrial biopsies

However, in order to look more extensively for a hidden ovulatory dysfunction, you may need to be seen by a radiologist who is skilled in diagnosing a variety of potential problems that specifically relate to the viability of the follicle. Such issues include its lack of integrity and maturity as well as its ability to break through the ovarian wall. Those that do not break through are called Luteinized Unruptured Follicles, and are particularly confusing because they typically cause your charts to reflect ovulation even though it didn't occur. For more on this topic, [click here](#).

In addition to these various follicular problems, it's also possible that there are potential luteal phase issues. A luteal phase of less than 10 days has already been discussed as a widely recognized cause of infertility and is easily observable in your charts. But it's also possible that it may *seem* normal when in fact you are producing too little progesterone or estrogen throughout the entire postovulatory phase, or perhaps just for certain crucial

days. Either way, various blood tests and daily ultrasound around the expected time of ovulation can often reveal the problem, and if precisely identified, there are drugs such as Clomid that may successfully resolve it.

🌸 ENDOMETRIOSIS

As you read in [Chapter 8](#), endometriosis is a mysterious condition in which the cells that line the uterus attach where they don't belong, usually elsewhere in the pelvic cavity. The condition is especially problematic for women trying to get pregnant, in part because it's often so difficult to diagnose. With its numerous paradoxes and contradictions, it could actually be fairly intriguing if you, yourself, weren't the subject of its unfortunate effects.

For starters, the degree of pain you may experience is totally unrelated to the extent of the disease. So, for example, you may have only one microscopic spot, but experience debilitating menstrual cramps. Or your whole pelvis could be covered with endometrial implants, but you might feel nothing. Similarly, you may be struggling to get pregnant with a minuscule amount of endometrial tissue, while someone else may have an extensive case throughout her pelvis, and yet has still given birth to three kids. Even more troubling, the surgery performed to alleviate pain and infertility could cause further scarring that only exacerbates the condition later. Such is the often frustrating reality of this very common malady.

So what gives? If you've been diagnosed with idiopathic infertility, endometriosis is one of the first conditions that you should suspect, regardless of whether or not you have any symptoms. And even if you have already had a laparoscopy, remember that the endometrial cells are often so microscopic that they could easily be missed unless the practitioner performing the procedure has a thorough grasp of the various ways in which they appear, and is highly trained in "near-contact" laparoscopy ([click here](#)).

Effects of Endometriosis on Fertility

Most doctors today will acknowledge that even mild endometriosis can compromise fertility in many ways, most frequently by causing fallopian tube adhesions. This is because the slightest scarring on the delicate tubes can prevent them from being able to grasp the egg. In addition, it can cause the

release of toxic substances that can prevent implantation as well as lead to an increased risk of miscarriages.

Probably the most significant effect on long-term fertility pertains to what it can do to a woman's ovarian reserve and function if the endometrial cells adhere to her ovaries. And, as I mentioned earlier, many women who have surgery specifically to remove ovarian endometrioses ironically risk even further diminished ovarian reserve and premature ovarian aging.

So How Can Women with Endometriosis Be Treated for Infertility?

This is the million-dollar question. Clearly, if the issue were simply pain alleviation, then hormones and medications that alter a woman's cycle often work well, albeit with many potential side effects. Yet even they don't cure the underlying disease—they only delay its recurrence. And they are completely inappropriate for women desiring pregnancy. Still, several options exist:

Fertility medications alone or with IUI

If this disease has affected your cycles, you may be prescribed any number of drugs such as Clomid or Serophene. This treatment alone may be enough for you to get pregnant without further intervention, but regardless, your age will help determine how aggressive you should be in moving on to the next option.

In addition, if you have not been able to conceive within a few months with drugs alone, your doctor may suggest trying the same drugs, but this time with IUI (intrauterine insemination). One of the rationales is that Clomid, especially, may dry up the cervical fluid necessary for the sperm to travel to the egg. Bypassing the cervix with IUI would give the sperm a better chance.

Surgery and IVF

Even though there are many who believe that endometriosis is best treated by surgery, it can be a risky option if you are trying to get pregnant, for the reasons discussed above. Indeed, certain fertility specialists like to say

that you need to be “quick but conservative.” In other words, once you have been diagnosed with the condition, you should keep in mind that it tends to get worse with time, so you will want to treat it fairly aggressively. At the same time, you should be extremely cautious with any surgery that could cause excessive scarring, especially on the ovaries.

Some women will need a combination of both medical and surgical therapy, but in any case, if you want to conceive, you should try to get pregnant within six months of completing treatment. This is because the condition can quickly recur as bad as it was before. And finally, if you don't respond to any of the above, you may still be able to get pregnant through IVF.

Weighing the options

To summarize, if you find a surgeon who is highly experienced with removing endometriosis, that may be your best choice. However, there are many doctors today who believe that if you have endometriosis on the ovaries themselves, you should bypass surgery and go straight to IVF in order to avoid further scarring. Of course, the condition itself can compromise the IVF procedure, so you may require more attempts than average for it to be successful. Alas, and as you can see, there is no ideal or risk-free solution for this condition.

✂ FALLOPIAN TUBE ISSUES

If you're reading this section, it's likely that you've already had an HSG to determine whether or not your tubes are open. And, while you may have been relieved to learn that they are, if you are still dealing with idiopathic infertility, you should know that there is another test that may be able to identify more difficult-to-detect tube-related problems.

Before discussing that test, though, let's briefly review what an HSG is. It's a procedure in which dye fills the uterus and ultimately flows through the fallopian tubes, revealing any abnormalities, such as uterine fibroids or adhesions. If the dye flows through the tubes, most clinicians will declare the test successful, and for most women, it is. However, if you're still struggling to get pregnant after having undergone only the HSG, you should discuss the utility of the test below with your clinician.

Tubal Perfusion Measurements and the Broader Tubal Picture

Just because the dye spills out of the uterus and through the tubes, it only tells you that they are open. However, the more important question is whether they are *functioning* normally, for an open tube may still have mechanical issues that prevent it from grasping the egg and drawing it inside. Fortunately, the procedure known as Tubal Perfusion Pressures (TPP) tests precisely for this situation.

If your TPP results are abnormally high, it may signal that your tubes, while open, are too rigid or diseased. Because of this, the fimbria at the end of the tubes may not be able to sweep the released egg into the tubal opening, thereby making an eventual conception impossible. (See picture of [fimbria](#) in the color insert.) If this were the case, your most promising option would be IVF.

There are several causes of blocked or dysfunctional tubes, including pelvic inflammatory disease and even appendicitis, while the most frequent condition affecting the actual fimbria is endometriosis. Regardless, having

the proper tests will hopefully reveal not only whether your tubes are open, but whether they're truly functioning properly, and if they're not, where to focus next.

✿ IMMUNOLOGICAL INFERTILITY

One of the more disputed causes of unexplained infertility is that of immunological conditions such as autoimmune disease, though for the purposes of this discussion, we'll assume the link. Unlike many other causes of diminished fertility, these conditions may not only make it difficult to get pregnant, but it could also make it difficult to sustain a healthy pregnancy once conception has occurred.

Autoimmune diseases are serious chronic illnesses that can affect both genders, but they occur more often in women, and most frequently during the childbearing years. Normally, the immune system functions incredibly well to protect various organs in the human body, but occasionally it goes awry and attacks those very organs. There are more than 80 serious, chronic autoimmune illnesses that can impact nerves, muscles, and connective tissues as well as the endocrine and gastrointestinal systems.

Some of the more common examples of autoimmune diseases are multiple sclerosis, ulcerative colitis, psoriasis, rheumatoid arthritis, and lupus. Although these conditions are still among the most poorly understood illnesses today, it appears that hormones play a role. And while there is a strong hereditary component, the way they cluster in families is not straightforward. For example, a grandmother may have ulcerative colitis, her daughter rheumatoid arthritis, and her granddaughter psoriasis.

Part of the challenge of diagnosing these types of diseases is that in the early stages, symptoms and lab results can be ambiguous, though in principle they are diagnosed through overt symptoms, a physical exam, and lab tests. Interestingly, infertility itself can be one of the first signs that a woman is in the early stages of such an illness.

Since the causes of these chronic conditions are not well understood, their treatment can be tricky, especially as it pertains to fertility issues and miscarriages. If you are diagnosed with one, you should ideally find a clinician experienced with the fairly aggressive medical treatment that may be required, and you can take heart from the fact that most patients with autoimmune conditions are still able to conceive and give birth to a healthy

baby.

Moving Past the Mystery

My hope is that this chapter has given you the basic information and confidence you need to ask for various alternative tests that may ultimately uncover the cause of your fertility issues and, if necessary, to seek out the second and even third opinion of those clinicians who are open to different approaches. I believe that by more thoroughly exploring these common causes of unexplained infertility, women can significantly raise the odds of finding the root causes and necessary treatments to finally give birth, and ideally without having to resort to the invasiveness and expense of IVF.

PART  SIX

*B*YOND FERTILITY:
PRACTICAL BENEFITS
OF CHARTING
YOUR CYCLE

Maintaining Your Gynecological Health

Sex is a pleasurable exercise in plumbing, but be careful or you'll get yeast in your drain tap.

—RITA MAE BROWN

*H*ave you ever thought about how odd it is that the most intimate details about your body are filed in a medical office across town? Why shouldn't you have access to such records in your own home? Once women learn to chart, they take control of all facets of their health care—from annual exam results to the symptoms that may prompt them to seek medical care in the first place.

Most women have fairly common conditions that are considered medically normal but may appear problematic to them simply because they were not taught about the healthy female body. In addition, as mentioned earlier, there are true gynecological conditions that can be more easily identified through charting, including:

- vaginal infections
- unusual bleeding
- premenstrual syndrome
- breast lumps
- endometriosis
- PCOS

By now, this list should be familiar to you. But I think it's important to repeat why charting is so beneficial for your gynecological health. One of the points I made in the beginning of this book is that charting enables a woman to understand her body in a practical way. As you'll recall, I said that a woman who charts every day is so aware of what is normal for her that she can help her clinician determine irregularities based on *her* symptoms rather than those of the average woman. The remainder of this chapter will discuss both normal and abnormal gynecological conditions and how FAM can be used to distinguish the two.

✂️ NORMAL, HEALTHY CERVICAL FLUID VERSUS REAL VAGINAL INFECTIONS

Healthy Cervical Fluid

From a health perspective, the obvious benefit of learning about your own pattern of cervical fluid is to be able to determine if and when you have a true vaginal infection.

Marsha is an American FAM instructor teaching in Israel. While getting her master's degree in public health in the States, she had an annual Pap test. She was charting her cycles, and planned her appointment for midcycle, knowing it would be more comfortable for her since her cervix would be slightly open. Of course, she also had a lot of stretchy cervical fluid at the time. As the physician removed the speculum, he exclaimed, "My dear, you have an infection," to which she replied, "Excuse me? I feel fine and don't have any symptoms." He replied, "Look at this discharge!" showing her the Pap stick with the obvious cervical fluid on it. "Well, I know I'm in my fertile phase and these are just my fertile secretions."

The nurse stood behind him, winking and nodding in agreement with her. He curtly and abruptly responded, "Well, we can't know for sure. I'm going to prepare these slides for STIs, including gonorrhea, syphilis, and chlamydia," and then proceeded to prescribe a week's antibiotics to take until the results came back.

Needless to say, she didn't take the drugs. Nor did the results test positive for any infections. As she cynically sighed, "I knew this was normal for me. But what about the average woman who doesn't know FAM? What kind of message does this send her?"

Is it any wonder that women grow up believing they are dirty all the time and in need of douching and spraying away the "discharge"? The continual advertising of douches and feminine sprays only reinforces the confusion between healthy cervical fluid and what is in fact a true infection. Millions of

dollars a year is spent promoting vaginal douches alone.

If you think this is harmless, consider a well-known talk show whose topic one day dealt with gynecology. No sooner had the two OB/GYNs finished explaining why douches and sprays were unnecessary and potentially infection-producing, when the show cut to a commercial. And what was the commercial about? You guessed it—vaginal sprays!

Only a minute earlier, one of the gynecologists had wryly commented that the income he generated treating women who had developed infections from using these products was enough to send all his children to college. And nowadays, with over-the-counter products readily available for yeast infections, how many women buy them to try to eliminate “those annoying infections” that just keep recurring every month?

Realistically, though, there may be times when you really do have a vaginal infection. Obviously, knowing your own pattern will enable you to detect the onset of an infection almost immediately, and treat it before you’re tempted to shoot yourself. One of the reasons women are often misdiagnosed, as was the FAM instructor above, is that a “symptom” during one time in a woman’s cycle may be nothing more than a fertility sign in another. So, for example, wet secretions midcycle is absolutely normal, but may be an indication of an infection if it occurs in the latter phase. (One exception is explained [here](#).) Of course, the sooner you detect a potential infection, the sooner you can treat and eliminate it.

Symptoms of Vaginal Infections That Can Be Distinguished from Normal Cervical Fluid

Fortunately, once you learn your own cervical fluid pattern, you’ll be able to identify true infections, which almost always occur with any number of unpleasant symptoms that distinguish them. Vaginal infections can range from STIs such as chlamydia and herpes to various forms of vaginitis and, of course, the generic yeast infection.

And women who may be more susceptible to infections are those who have cervical eversion, a benign condition in which the cells that normally line the cervical canal migrate to the outside of the cervix. Since these cells are more delicate, they can become more easily infected. Those who are more

prone to cervical eversion are teens, women on the pill, and pregnant women.

While it's beyond the scope of this book to identify the individual symptoms and treatments for all these conditions, the following symptoms are definitely not part of healthy cervical fluid secretions, and should therefore be seen by a clinician:

- abnormal discharge
- unpleasant odor
- itching, stinging, swelling, and redness
- blisters, warts, and chancre sores

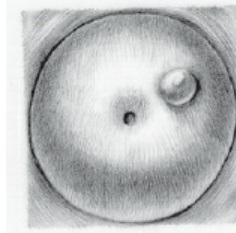
Some women may have a gummy or yellow secretion that is usually thick and snaps like old rubber cement. This may actually be normal, although it can also indicate an inflamed cervix (cervicitis). In addition, a clear or whitish constant discharge can be a sign of cervical erosion. So, you will want to have either of these checked to rule out a potential problem.

Avoiding Infections

There are certain precautions you should take to avoid contracting infections in the first place. Aside from the obvious consequences of douching, you should be aware that wearing clothing that is either damp or too tight may create an unhealthy vaginal environment. So I'm afraid the camel-toe look, in addition to being a tad tacky, is clearly not an option if you value a healthy vagina. In any case, be sure to always wear cotton underwear, or, at a minimum, underwear with cotton crotches, and lingerie that allows your body to breathe.

✂ NORMAL NABOTHIAN CYSTS ON THE CERVIX VERSUS ABNORMAL CERVICAL POLYPS

Nabothian Cysts



These cysts are a fairly common female condition. They are little bumps that appear on the surface of the cervix and are caused by cervical glands which may become temporarily blocked. Women who haven't been taught about these cysts may panic the first time they feel one, not realizing they are completely harmless. Women often feel them the first time while checking their cervix or inserting a diaphragm or cervical cap.

They usually disappear on their own, but if they don't, you should probably have them checked by a clinician at your next annual exam to rule out anything else. Then simply draw them on your chart in the miscellaneous section and keep track of them. You can chart them as done in the [example here](#).

Abnormal Cervical Polyps

Polyps are small, tear-shaped growths that protrude from the mucus membranes of the cervical canal. Unlike nabothian cysts, which are quite firm, these tend to be somewhat spongy. Although they are considered abnormal, they're almost always benign. You may not even be aware you have one unless you experienced one of their symptoms—unusual bleeding. This is due to their vulnerable position in the vagina, making them susceptible to being tapped, especially during intercourse. They are typically not painful, but may cause excess cervical fluid due to irritation of the mucus

glands. If you think you may have one, you should consult a physician.

far left column. ([Click here](#) to see the page in the color insert for another example.)

Abnormal Pain

On the other hand, if you notice pelvic pain that is intense or occurs at other times in the cycle, it could be an indication of any number of conditions. If it's possible you are pregnant and you experience a sharp stabbing pelvic pain, you should see a doctor immediately, since this could be a sign of an **ectopic pregnancy**. Such pregnancies are life-threatening if they rupture and cause internal bleeding. They occur when a fertilized egg implants outside of the uterus, usually in the fallopian tubes (which is why they are often called tubal pregnancies), and may include the following symptoms beyond the pain itself:

- an overdue period
- unusual vaginal bleeding
- a positive pregnancy test
- fainting
- shoulder pain, due to possible internal bleeding

Another type of pain with potentially serious ramifications is associated with **pelvic inflammatory disease (PID)**, an infection and inflammation of the upper reproductive tract. It's the leading cause of preventable infertility due to the pervasive scarring it can cause, especially in the fallopian tubes. Although you may not have any symptoms, it's more likely that you will feel:

- pain in your lower abdomen
- fever
- vaginal discharge
- painful urination
- pain during intercourse
- irregular menstrual bleeding

Perhaps the most problematic source of pain is **endometriosis**. As you may remember, this is where cells from the uterine lining (the endometrium) begin to grow outside the uterus, often attaching to other parts of the internal

reproductive system. It can result in adhesions and scarring, and potentially impede fertility. One of the classic symptoms of endometriosis is pelvic pain before and during menstruation, as well as during intercourse ([click here](#) for a list of other symptoms).

A pelvic pain that is usually less serious but which you might notice at some point in your life may be due to **ovarian cysts**. As you read in more detail in [Chapter 8](#), you may experience either a nagging tug from the swelling, or an intense pain if it bursts, usually on one side.

You may only be able to eliminate the pain of a follicular cyst with a progesterone injection, though luteal cysts usually resolve on their own. In either case, it's best to be checked on Day 5 of the following cycle to be sure the cyst is truly gone.

Symptoms of Ovarian Cancer

This is one of the most dreaded forms of cancer for women because, by the time it's diagnosed, it has often spread. Now, however, researchers are discovering that there are in fact symptoms that women may notice if they are truly in tune with their bodies—another obvious benefit of charting.

If you experience any of the symptoms below for at least three consecutive weeks, especially the first three, you should consult your doctor.

- abdominal pain
- abdominal distension
- frequent urination
- a feeling of fullness, even after a light meal
- a change in bowel habit
- loss of appetite
- irregular bleeding
- bleeding with intercourse
- leg pain (due to ovarian pressure on your nerves)

The Three Vs: Vaginismus, Vulvodynia, and Vestibulitis

It's normal for women to occasionally have vaginal pain or stinging. Perhaps you removed a tampon on a very light day and scraped your vagina while removing it. Or you have a vaginal infection, and the stinging reminds you why you should never douche simply to smell like a field of wildflowers. Or maybe you had sex several times within a couple hours, and it stings like crazy the first time you urinate afterward. That's understandable.

But if you experience pain or stinging most of the time, or find it impossible to have sex without major discomfort, you'll definitely want to see your gynecologist or natural health practitioner. What you may have is any of the three Vs: vaginismus, vulvodynia, or vestibulitis. Before describing them, just know that what you are experiencing is surprisingly common, and you should never hesitate to discuss any of them with your gynecologist. You can be sure that they see women all day with similar issues.

Vaginismus

This typically refers to vaginal issues specifically with sex, such as burning or pain, uncomfortable vaginal tightness or penetration problems, or even a complete inability to have intercourse. The vaginal tightness is due to the involuntary tightening of the pelvic floor (especially the PC muscles), but women are often unaware that this is the cause of their penetration or pain difficulties.

Vulvodynia

This is a regrettably common condition characterized by chronic pain around the vaginal opening for which there is no identifiable cause. The pain, burning, or irritation may be so uncomfortable that having sex or even sitting for a long time can become almost unbearable.

Vestibulitis

This is similar to vulvodynia, in that it causes discomfort and pain in the vaginal area, but more specifically, often manifests as severe pain in the vaginal opening. This area is sensitive and contains the urethra, as well as the Bartholin's glands, which produce lubrication.

Unfortunately, all three of these conditions can become chronic if not treated, and there is no uniform approach that works for all women. However, clinicians have become more experienced in helping their patients successfully manage their symptoms, and there are, in fact, a wide array of possible treatments. They range from the use of topical gels and creams to the use of physical therapy and cortisone injections.

So, again, if you have the symptoms of any one of these, try to get over your embarrassment and see your gynecologist.

♀️ NORMAL CYSTIC BREASTS VERSUS CANCEROUS BREAST LUMPS

Normal Cystic Breasts

Charting your cycle can help you differentiate between normal cyclic breast changes and abnormal breast lumps. The texture of breasts in women with fibrocystic breasts tends to be fairly lumpy, becoming more so in the postovulatory phase of their cycle. By knowing when they have begun that phase, they can determine if their lumps are normal and cyclical, and make the necessary lifestyle adjustments to try to lessen the discomfort of fibrocystic breasts.

There is a lot of support in the natural health community for the use of progesterone cream during the luteal phase. But if the lump(s) remain throughout the cycle, charting can be beneficial in tracking whether further examination should be made by a health practitioner.

Charting is also an excellent way to remind you to do a monthly breast self-exam on Day 7 of your cycle. (Note the BSE symbol in the Notes row at the bottom of the master chart.) The reason that you should perform the exam on this day is because it is the hormonally optimal time, since your breasts are least susceptible to lumps or tenderness caused by progesterone. After completing your self-exam, circle the notation on the chart, as Molly did in the chart below.

The American Cancer Society recommends that most women should start having mammograms at age 40. As with your breast self-exam, you should ideally have it done in your preovulatory phase, when your breasts are not tender or possibly fibrocystic.

Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
Notes							BSE																																			

Molly's chart. Recording breast self-exam. Molly performs a breast self-exam every cycle on Day 7, then records it by circling BSE on her chart.

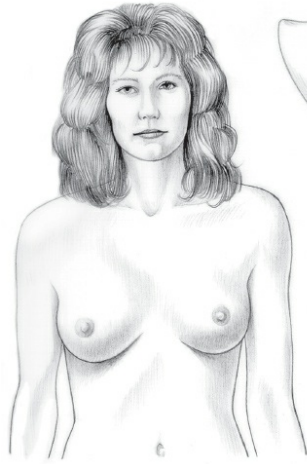
Cancerous Breast Lumps

The prospect of breast cancer is extremely frightening to most women. However, you should know that most lumps are benign and that cancers of the reproductive system are curable if detected and treated early. You, yourself, can directly affect your chances of finding cancer early if you maintain a healthy lifestyle, get annual pelvic exams and Pap tests every 3 years, do monthly breast self-exams, and make a point to promptly attend to suspicious symptoms.

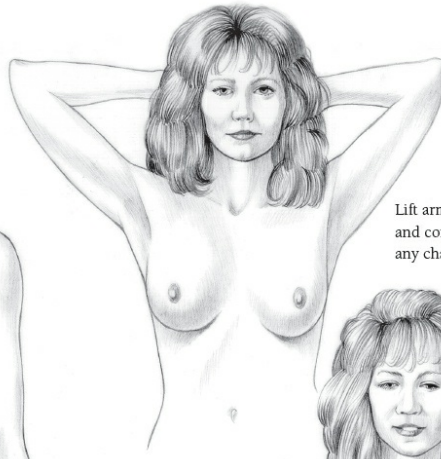
The following are warning signs to look for in your breasts. The important point is to notice whether they remain indefinitely, or disappear with the new cycle. Obviously, anything that persists should be examined by a clinician.

- breast lump or thickening (firm, nonmovable lumps are important to watch for, especially because they are usually painless)
- lump in underarm or above collarbone
- swelling under the arm
- puckering or dimpling in one area of the breast
- persistent skin irritation, flaking, redness, or tenderness of breast
- sudden change in nipple position (such as nipple inversion)
- bloody nipple discharge

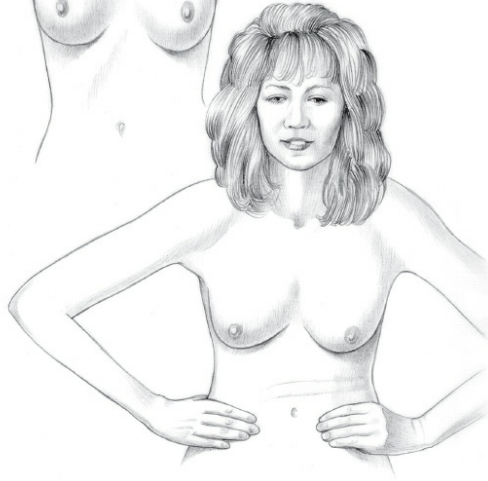
PERFORMING A BREAST SELF-EXAM ON DAY 7 OF EVERY CYCLE



Stand in front of a mirror and observe breasts for any dimpling of the skin, changes in the nipple, or redness and swelling.



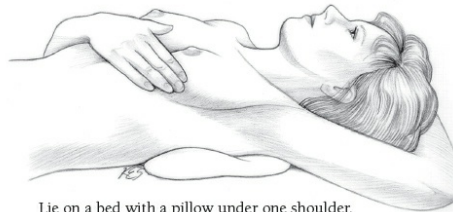
Lift arms above shoulders and continue to look for any changes.



Put hands on hips and bend slightly.



Check breasts while showering, using the soap to help your hands glide over your breasts.



Lie on a bed with a pillow under one shoulder, placing your arm behind your head. Using the pads of your fingers, feel for lumps or thickening with the opposite hand.

✿ SCHEDULING THE BEST TIME FOR PHYSICAL EXAMS, CONTRACEPTIVE FITTINGS, VACCINATIONS, AND SURGERY

Another benefit of charting is that it can help you identify the most effective time in your cycle to have physical exams, contraceptive fittings, vaccinations, and surgery. The best time to schedule a Pap test, for example, is about midcycle, when the cervix is naturally dilated. In the case of fitting for diaphragms or cervical caps, having it done at the wrong time can mean the difference between complete contraceptive protection and an unplanned pregnancy! Since the cervix clearly changes around ovulation, it only makes sense to get fitted at the time when the method is *most likely to fail*. Remember that when a woman is fertile, her cervix becomes soft, high, and open, so that is the best time to be fitted.

As mentioned earlier, you should do your breast self-exam on Day 7 of your cycle. For the same reason, you should schedule your routine mammogram around the same time, ideally about Day 7. This is because your breast tissue is less dense in the preovulatory phase. And, if you're going to have two steel plates squish your breasts, it might as well be done when there is as little discomfort as possible!

A practical piece of advice would be to have a rubella vaccination performed just after your period. This would assure that you aren't pregnant at the time. This is crucial for this particular vaccine, since the effects of the rubella virus on the fetus of pregnant women are potentially devastating.


Some studies have suggested that having breast cancer surgery after ovulation may increase your chances of living longer without a recurrence of the disease. One theory for the difference in outcome is that estrogen in the first part of the cycle could stimulate the growth of cancer cells. You should be aware, however, that these findings do not reflect a general consensus. Finally, if you are having a laparoscopy to remove endometriosis, some believe that it's best to have it done before ovulating in order to decrease the recurrence rate.

Since further research may prove that timing surgeries to a particular phase of your cycle increases the odds of a positive outcome, you should ask

your physician about it. If it's just minor surgery, it may not be so important. But if it involves something as serious as your survival, I would encourage you to do your homework and research the latest studies with a discriminating eye.

Annual Physical Exam
Health Practitioner
Dr. Mary Compassionate

Cholesterol <u>190</u> Ratio <u>3.1</u> HDL <u>65</u> LDL <u>120</u> Cycle Day <u>16</u> Date <u>11-29-01</u>
Blood (CBC) <u>OK</u> Age at time of exam <u>30</u>
Urine Test <u>OK</u> Height <u>5'6"</u> Weight <u>140</u>
Pap test <u>OK</u> Pulse <u>76</u>
Chlamydia Test (optional) <u>not done</u> Blood Pressure <u>120/80</u>
Other Tests <u>—</u> Shots/Boosters/Vaccines <u>Tetanus</u>

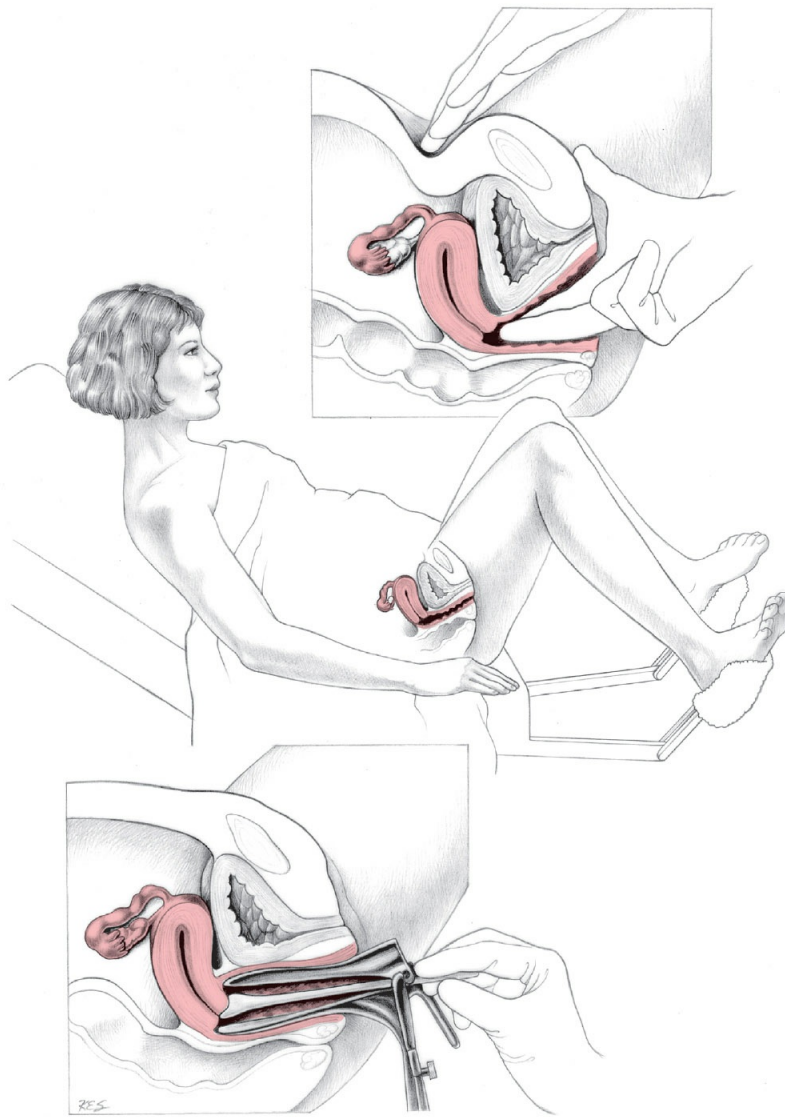
	Status	Comments
Breast Exam 		Dr. Compassionate agreed that the soft lump that I found during my monthly breast self-exam is probably nothing to worry about, but she scheduled a mammogram just to rule out anything.
Mammogram	<u>OK!</u>	The lump on my right upper breast was just a milk duct. Watch it to confirm that it disappears on its own.
Cervix	<u>OK</u>	She pulled out a great 4" clear stretchy thin string! Looked at my cervix with a mirror. Cervical os was really open.
Uterus	<u>OK</u>	
Ovaries		The doctor found a tiny ovarian cyst on left side. Should subside on its own.
Heart	<u>OK</u>	
Lungs	<u>OK</u>	
Mole on my back		She said it looks fine, but referred me to dermatologist to have it checked.

Prescriptions —

Recommendations Suggested I consume a lot of calcium-rich foods to build my bones and prevent osteoporosis later in life.

Referrals Dr. Rea Sure (206)123-4567, dermatologist

WOMAN HAVING BIMANUAL PELVIC EXAM AND PAP SMEAR



A pelvic exam typically includes a bimanual, as well as a Pap test every 3 years. A bimanual is when the clinician inserts a finger into the vagina to be able to stabilize the uterus from the inside while gently pressing down on the abdomen to palpate the uterus and ovaries from the outside. The Pap test is done primarily to detect the presence of pre-cancerous cells of the cervix.

✂ STAYING HEALTHY AND KEEPING INFORMED

I wrote this chapter to help you distinguish between what is normal and what may require medical attention.

By accurately tracking your symptoms on your chart, you can help your doctor determine if you need further testing to diagnose the cause of any particular pain or issue. For this reason, you should learn to recognize what is considered normal, cyclical pain, as opposed to that which is more intense or occurs at unexpected times of the cycle, since that is more likely to indicate a potential health problem. (As mentioned earlier, [click here](#) to see the page in the color insert to view how different colors can be used to keep track of your various symptoms.)

The form in the [Master Charts](#) section at the back of the book can be used for your annual exams. You can either download it from tcoyf.com, or copy and enlarge it by 125%, then copy it onto the back of the chart of the cycle in which you get your yearly physical, taking it with you when you go. You'll find it's a practical way to keep track of your weight, blood pressure, and general gynecological health, including such things as breast exams, mammogram, Pap test, vaginal culture, or any possible STIs. You can use the back of the regular charts to record anything else worth remembering.

NORMAL VERSUS ABNORMAL BLEEDING

Finally, if you have a uterus, then you already know that this topic gets a chapter of its own!

Causes of Unusual Bleeding

*I*t's quite likely that at some point in your life, you will experience unusual or abnormal bleeding, which is essentially any bleeding that is different from a true menstrual period. And, of course, as you know by now, a period is the bleeding that occurs about two weeks after ovulation.

Back to Sixth Grade! Reviewing the Basics of a Healthy Period

In order to understand unusual bleeding, you'll want to remember what is normal as a point of reference: Menstrual cycles generally last from 21 to 35 days, while periods average from 3 to 5 days (though anything from 2 to 7 is still considered normal).

Menses typically follows a pattern similar to one of these two:

light → heavy → moderate → light → very light

or

heavy → heavy → moderate → moderate → light

In addition, a true period will often be associated with mild symptoms such as premenstrual breast tenderness, mild cramps, or a mild low backache.

partner had injured her cervix during intercourse. It wasn't until years later that she realized that the blood she had seen periodically was merely ovulatory spotting collected in the diaphragm.

Anovulatory Bleeding and Spotting

Occasionally women don't release an egg for several possible reasons. One of these is that estrogen doesn't reach the threshold necessary for the egg to be released. When this happens, the drop in estrogen is enough to cause a slight shedding of the lining of the uterus. At other times, estrogen may continue to stimulate the growth of the uterine lining to such an extent that it can't support itself sufficiently, and breakthrough bleeding occurs. In women over 40, the cause of anovulatory bleeding is often the result of a decreased sensitivity to the hormones FSH and LH. The result is that the woman may not ovulate, and without progesterone to sustain the lining, spotting or bleeding may occur. In all these cases, though, the bleeding is not technically menstruation.

The way to determine if a woman did indeed ovulate is through charting her temperature. Remember, ovulatory cycles usually reflect a classic temperature pattern of lows before ovulation, and highs after.

Implantation Spotting

Likewise, if a woman was trying to get pregnant and noticed spotting rather than bleeding anytime from about a week after her thermal shift, she should consider taking a pregnancy test because it may be "implantation spotting" rather than a period. When the egg burrows into the endometrial lining of the uterus, a little spotting may occur. She can also determine if she may be pregnant by noting if her temps continue to remain high beyond 18 days. This would indicate that the corpus luteum was staying alive to support a pregnancy.

Breastfeeding Spotting

Women who have just delivered a child may find that after the initial lochia (spotting following childbirth) has stopped, they have an episode of spotting at about 6 weeks postpartum. It's usually due to the withdrawal of hormones that had been circulating at high levels when the woman was pregnant. In addition, while breastfeeding, hormone levels can fluctuate due

to the varying needs of the baby. Because of this temporary hormonal imbalance, nursing women may experience a number of anovulatory spottings.

Spotting After Office Procedures

Women will often spot after office procedures such as Pap tests, cervical biopsies, cryosurgery, cautery, laser surgery, pelvic exams, and IUD insertions. This is normal.

Hormone Therapy

It's normal to have some spotting or bleeding with HRT, especially in the first few months. Still, you may want to discuss it with your clinician to initially rule out an incorrect dosage or other potential problems.

Dark Brown or Blackish Spotting

This type of bleeding may occur in the days leading up to your period or at its tail end. The blood flows so slowly that by the time it reaches the outside of your body, it has been exposed to oxygen, which turns it from red to dark—think of the color of blood when you first cut yourself, before the darker scab forms. This old blood is only a potential concern if you have it for two or more days (as discussed in the [Luteal Phase Insufficiency](#) section later on).

Clotting During Menstruation

In some ways, clotting is the opposite of the dark spotting. Your body typically releases anticoagulants to keep menstrual blood from clotting. However, when your period is heavy and the blood is flowing quickly, there may not be enough time for anticoagulants to work, and thus clots form. They are common and usually not considered a concern. If they are bothersome, however, you may want to see your doctor to rule out anything serious.

✿ UNUSUAL BLEEDING

You may be able to eliminate some of the types of bleeding below by following the suggestions in [Chapter 9](#) on balancing your hormones. Of course, it should go without saying that if any of them are particularly severe or cause you serious problems, you should see your doctor.

Problems with Menstrual Bleeding

As you read above, your periods should typically follow a pattern of increasing and decreasing in flow, or just decreasing from a heavy flow on Day 1. You may occasionally have a thick, heavy flow, which can be normal. But if you regularly experience heavy periods, defined as soaking through a pad or tampon about once an hour, at a minimum, you should have your blood count checked to rule out anemia caused by excessive blood loss, since this can lead to weakness or fatigue. Regardless, if you ever think that something doesn't feel right with your period, trust your gut and see your doctor.

Cervical Erosion

If you experience a continual whitish slightly bloody discharge, it could be a sign of cervical erosion. This condition is rarely serious and can have numerous causes, from tampon use to the physical impact of multiple childbirths.

Luteal Phase Insufficiency

If you are trying to conceive and have what is referred to as postmenstrual brown or black bleeding (defined as two or more days of spotting at the tail end of your period), it's probably caused by an irregular shedding of the endometrium and small fragments of endometrial tissue. This is usually the result of suboptimal luteal function in the *prior* cycle.

Likewise, if you are trying to get pregnant and you often have two or more days of brown or black bleeding leading up to menstruation, you could theoretically be at risk for a potential miscarriage. This is because, in order for implantation to occur, the uterine lining must be sufficient for the egg to

burrow into before it is shed during menstruation. Both of these are usually treated by focusing on supporting your luteal phase or treating ovulation itself.

Pelvic Inflammatory Disease (PID) or STIs

You should be especially alert to such signs as cramping or abdominal pain, abnormal vaginal discharge, fevers and chills, or any kind of pain during urination or intercourse. Such symptoms, when accompanied by unusual bleeding, could be characteristic of a variety of conditions, from pelvic infections to various sexually transmitted infections.

Endometriosis and Other Disorders

Another possible cause of premenstrual spotting is endometriosis, which can also cause heavy menstrual bleeding or irregular bleeding between periods. If you note other unexplainable bleeding, you should consider getting a diagnosis because it could be caused by hormonal imbalances such as thyroid problems, excess estrogen, or Polycystic Ovarian Syndrome, to name just a few. Fortunately (or not!), most cases of unusual bleeding caused by these conditions are accompanied by other symptoms, so it should make them a little easier to diagnose.

Fibroids

Although clots are often normal during menstruation, they could reflect potential fibroids if you start getting them when they've never occurred before. If they seem excessive or annoying and you would prefer to treat them, discuss this with your doctor. And if you think you might be pregnant and pass large clots along with gray tissue, contact your physician immediately, because you could be having a miscarriage. ([Click here](#) to see the page in the color insert for more on fibroids.)

Dysfunctional Uterine Bleeding (DUB)

The most common type of unusual bleeding has no obvious organic or structural origin. It is often referred to as dysfunctional uterine bleeding (or DUB), and it's usually diagnosed as such when all organic causes have been eliminated. DUB is usually assumed to have a hormonal basis, with about 90% due to anovulation. It typically occurs in women with long or irregular

cycles, such as those with PCOS. It also often occurs in those who are at the two extremes of reproductive age, either early puberty or perimenopause.

Because there are so many potential causes of unusual bleeding, I've included a more comprehensive summary of the most common ones in the table below. Note that the bleeding issues are in the approximate order that they appear in the cycle, beginning with the menstrual period itself.

Of course, being able to share your chart with your physician will allow her to see when the bleeding is occurring and what the quality of the flow is, making it that much easier to diagnose.

CAUSES OF UNUSUAL BLEEDING DURING DIFFERENT PHASES OF THE CYCLE

HEAVY BLEEDING DURING PERIOD	
Soaking through a sanitary pad or tampon every one to two hours for at least several consecutive hours.	
Submucous uterine fibroids	Benign growths that bulge into the uterine cavity and are located just under the lining of the uterus. They tend to bleed more heavily than other types of fibroids, and are more difficult to treat (see types of uterine fibroids here in the color insert).
Endometriosis	The condition in which some of the uterine cells that normally shed during menstruation attach themselves elsewhere in the body, most often within the pelvic cavity.
Endometrial hyperplasia (adenocarcinoma)	An overgrowth of the glandular components of the uterine lining. It <i>can</i> be precancerous.
Cystic hyperplasia	An overgrowth of fluid-filled cysts in the uterine lining.
Adenomyosis	A condition in which the endometrial tissue, which normally lines the uterus, penetrates its muscular walls instead, potentially causing severe menstrual cramps and heavy periods.
Coagulation disorders	Conditions such as systemic lupus, in which the body is not able to control blood clotting effectively.
TAIL-END PERIOD SPOTTING	
Two or more days of brown or black spotting that occurs at the tail end of your period.	

Endometritis	An infection or inflammation of the cells lining the uterus, which can occasionally be chronic.
PROLONGED POSTMENSTRUAL BROWN BLEEDING Brown or black spotting that continues for days beyond the red bleeding of menstruation.	
Corpus luteum deficiency	3 days or more of dark spotting.
Endometrial hyperplasia (adenocarcinoma)	An overgrowth of the glandular components of the uterine lining. It can be precancerous.
Cystic hyperplasia	An overgrowth of fluid-filled cysts in the uterine lining.
Adenomyosis	A condition in which the endometrial tissue that normally lines the uterus penetrates its muscular walls instead, causing potentially painful and heavy periods.
BLEEDING EARLY IN CERVICAL FLUID BUILDUP	
Endometrial polyps	A piece of tissue that projects into the uterine cavity through a large base or thin stalk that attaches to the uterine lining.
Endometrial hyperplasia (adenocarcinoma)	An overgrowth of the glandular components of the uterine lining. It can be precancerous.

OVULATORY BLEEDING This is normal but included because the technical definition of unusual bleeding is any bleeding that is not a menstrual period.	
Estrogen breakthrough	Spotting that occurs just <i>before</i> the Peak Day, and is the result of excess estrogen stimulating the endometrium.
Estrogen withdrawal	Spotting that occurs within the 3 days <i>immediately following</i> the Peak, and is the result of the sudden drop in estrogen just before ovulation.
PROLONGED PREMENSTRUAL BLEEDING (LUTEAL PHASE)	
Endometritis	An infection or inflammation of the cells lining the uterus.
Submucous fibroids	Benign growths that bulge into the uterine cavity and are located just under the lining of the uterus. They tend to bleed more heavily than other types of fibroids, and are more difficult to treat (see types of uterine fibroids here in the color insert).
Endometrial polyps	A piece of tissue that projects into the uterine cavity through a large base or thin stalk that attaches to the uterine lining.

PREMENSTRUAL SPOTTING (LUTEAL PHASE)	
3 or more days of light or brown spotting that occurs prior to the first day of red menstrual bleeding.	
Low progesterone	Not enough progesterone to maintain the uterine lining, which leads to the premature breakdown of endometrial capillaries.
Endometriosis	The condition in which some of the uterine cells that normally shed during menstruation attach themselves elsewhere in the body, most often within the pelvic cavity.

ANOVULATORY BLEEDING	
These may occur after menopause, as well.	
Estrogen breakthrough	Light or brown spotting or heavy and prolonged bleeding that is the result of excess estrogen stimulating the endometrium without progesterone from ovulation to sustain it. This is especially characteristic of women with PCOS.
Estrogen withdrawal	Bleeding that can be anything from heavy with clots to just spotting. It is the result of the follicle maturing enough to release estrogen that thickens the endometrial lining before the follicle breaks down. This causes the estrogen to drop and bleeding to occur.
Endometrial polyps	A piece of tissue that projects into the uterine cavity through a large base or thin stalk that attaches to the uterine lining.
Endometrial hyperplasia (adenocarcinoma)	An overgrowth of the glandular components of the uterine lining. It can be precancerous.

Organic Causes of Unusual Bleeding

This is bleeding that emanates from an anatomic or structural problem of the uterus, as opposed to a hormonal imbalance, and *can occur at any time in your cycle*. Some of these conditions were noted in the previous table, but they are listed here again, for clarity.

Endometrial polyps	A piece of tissue that projects into the uterine cavity through a large base or thin stalk that attaches to the uterine lining. It is usually benign.
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Endometrial hyperplasia (adenocarcinoma)	An overgrowth of the glandular components of the uterine lining. It can be precancerous.
Endometritis	An infection or inflammation of the cells lining the uterus.
Pelvic Inflammatory Disease (PID)	Pelvic infections that can cause irregular bleeding along with a host of other symptoms discussed here . It should be treated immediately to prevent scarring that could lead to infertility.
Chronic cervicitis	<p>A chronic inflammation of the cervix usually due to either cervical eversion, an infection, injury of the cervix, or rarely, cancer. It can be triggered by an STI, but may also have noninfectious causes.</p> <p>Acute cervicitis that is not treated develops into chronic cervicitis, which can lead to an excessive vaginal discharge, bleeding between periods, and spotting after sex.</p>
Fibroids	Benign tumors that are located in various parts of the uterus. They can grow to be very large, and both the size and location of the fibroids affect the severity of the bleeding they may cause.
Thyroid Dysfunction	A condition in which a woman may experience unusual bleeding, in addition to numerous other symptoms, as discussed here .
Adenomyosis	A condition in which the endometrial tissue, which normally lines the uterus, penetrates its muscular walls instead. It can cause potentially painful and heavy periods.

[Click here](#) for more on unusual bleeding while charting.

Appreciating Your Sexuality and Nurturing Your Relationship

“How is your sex life? How often do you have sex?” asked their respective therapists. Alvy Singer reflected. “Hardly ever, maybe three times a week,” he whined. “Constantly . . . I’d say three times a week!” Annie Hall complained. He felt deprived. She felt exhausted.

—SCENE FROM WOODY ALLEN’S *ANNIE HALL* (1977)

Does that sound familiar? A woman’s sexuality doesn’t have to be the mystery so many people think it is. In reality, there are a number of ways in which women and men differ sexually.

Many women tend to view lovemaking as an emotional and intimate experience, not just a physical act. So women may tend to get aroused if they feel trust and affection in the hours and even days leading up to intercourse. Many men, on the other hand, tend to place more importance on the visual and other stimuli at the actual time of sexual interaction.

In addition, a woman’s physical experience of sex is quite different from a man’s simply because her clitoris is located outside of her vagina. This one fact can dramatically affect every aspect of her emotional and physical sexuality.

My friend Bill explained it best when he casually mentioned over lunch one day that girls have it easy:

“When they are 16 or 17 years old and with their boyfriend, they reach down and touch him and Boom! Ahhh, so that’s what it takes. She’s got it figured out. The guy, on the other hand, experiences his whole life with women as stepping into the cockpit of a 747: I know there’s a button somewhere that turns this thing on.”

Alas, a woman’s sexuality is also often closely tied to her cycle, as well. Many women themselves don’t understand this. Is it any wonder, then, that men often find women somewhat confusing? But men who help their partners chart often maintain that they finally get female sexuality in a way that often eluded them before. They describe the newfound wisdom that they’ve acquired in understanding an aspect of women that is so frequently misunderstood. These next few pages will hopefully clarify the puzzle and make you appreciate the secret of your sexuality.

What You’ve Been Missing: For the 10 to 15% of Women Who’ve Never Had an Orgasm

Not only have scores of women never climaxed, but only about 25% can experience orgasms through intercourse alone. Of course, you can’t expect a man to know how to give you one if you, yourself, don’t know what works for you. So, if you’ve never had one, this handy little list below is for you. Enjoy the research.

Shower or bath streams

One of the best and least-intimidating ways for women to learn how to have an orgasm is to light a candle and lie comfortably in the bath or shower with a bath pillow under their head, letting a warm stream of water flow over their clitoris. If you can find the right time and privacy, it’s one of the most relaxing and sensual ways to experience your first of hopefully many climaxes.



"It's a little disorienting when Louise tells me that I can always be replaced by a pulsating shower."

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Vibrators

You've undoubtedly heard references to women's love affair with vibrators, and for good reason. While men can practically have an orgasm just by looking at a female body, for women it's a tad more challenging. Regardless, the most fail-proof way for women to have an orgasm is with a vibrator, provided they determine which kind is right for them. In fact, there are dozens of different types.

There are phallic-shaped vibrators that obviously mimic an erect penis, designed to be inserted. There are curved ones designed to reach the G-spot (more on that below). There are those used only on the clitoris itself, and there are tiny discreet ones designed to be used on the clitoris specifically during intercourse. Finally, there are ingeniously designed ones that are phallic-shaped and have an accessory attached to the outside, made to simultaneously stimulate the clitoris while it is inside the vagina—a twofer, if you will.

The best way to learn what works for you is to visit one of the numerous women-centered sex toy boutiques that have popped up throughout most big cities. Gone are the days of seedy, back-alley sex shops frequented only by suspicious-looking men. Now, women and couples can explore all manner of sex toys and attend enlightening classes on every facet of human sexuality, including, of course, how to have an orgasm (yep, there are classes on how to have an orgasm).

Texting as foreplay

Who would have predicted that with the advent of smartphones, the sex lives of men and women everywhere could be so enhanced? Enter texting and its ability to create a slow simmer throughout the day, so that by the time you and your partner finally see each other that evening, you're ready to tear each other's clothes off.

Erotic imagery

There probably isn't a woman in America who hasn't heard of the book *Fifty Shades of Grey*. Its popularity is a testament to the ability of erotic books and videos to arouse not just men, but women as well. Indeed, there are entire genres of adult videos made specifically for couples, and for many of them, there is nothing sexier than sitting in the privacy of their own home, watching erotica as a way to get their juices flowing.

Extensive teasing and withholding

When it comes to helping women climax, sometimes the simplest things are overlooked. For many of you, perhaps the easiest and sexiest thing your partner can do for you is to intentionally withhold caressing your vaginal area while focusing everywhere else, so that you practically have to plead with him to finally let you climax.

Stimulation of the elusive G-spot

And then, of course, there is the ever-mysterious G-spot—undoubtedly still the most hotly debated topic in the field of human sexuality today. Does it or doesn't it exist? And if it does exist, where the hell is it anyway? When I initially started researching the first edition of this book back in the early 1990s, the G-spot was so poorly understood that I chose not to include anything about it. But I certainly thought that 20 years later, enough scientific studies would have been conducted that we would finally know definitively whether it actually exists!

Wrong. Part of the confusion stems from the fact that, unlike the clitoris, the G-spot has yet to be scientifically identified as a distinct structure. Although many women experience intense sexual pleasure and orgasms stemming from the top front of the vagina, nobody has been able to document a more precise source, or describe its size and appearance. Still, for the

purposes of this discussion, we'll assume that there is indeed an entity that some women have, or at least that some women find sensitive, and we'll refer to it as the G-spot.

It's been described as an area of spongy tissue, about the size of a quarter, on the paraurethral gland (the gland beside the urethra), which is analogous to the male prostate. It's located about an inch or two inside your vagina on the wall that is closest to your belly button. It has a different texture than the rest of your vagina, because it is comprised of erectile tissue with ridges, allowing it to swell when you are sexually aroused. This makes it easier for your partner to find it after extensive foreplay, as seen [here](#) in the color insert.

Because of its location on the upper vaginal wall, it's hard for a woman herself to be able to reach it effectively. The best way for you to access it is with one of the vibrators specifically designed for that purpose. Of course, your partner can also stimulate it much more easily by inserting his index or middle finger all the way in, then bending it up in a "come hither" motion until he finds the area that is more ridged than the rest of the vaginal wall.

Given the G-spot's internal location, he may need to rub harder in order for you to feel it. And, in an interesting twist, older women may find it more arousing because their vaginas tend to be a little thinner, making the G-spot more prominent. Regardless, if you don't feel anything, you may want him to use his other hand to press on your pubic bone at the same time, which might intensify the physical sensation.



Men should not be afraid to stop and ask for directions.

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Oral sex (cunnilingus)

One of the sexiest and most reliable ways a woman can achieve an orgasm is through her partner performing oral sex on her with his warm tongue (of course, neither of you will likely enjoy it unless you are squeaky clean). In addition, it's vital for your partner to understand how excruciatingly sensitive the clitoris can be if touched directly, whether with his fingers or tongue. And if you don't feel comfortable telling him to stay clear of your clitoris after you've climaxed, your shrieks of pain should be a subtle but effective cue.

Warming sexual lubricants

One of the defining feelings leading up to orgasm is a surge of warmth in your vagina and clitoris, and using a warming lubricant either during masturbation or intercourse gives you a head start. If used properly (applying just the right amount so that it doesn't get too hot), it can be incredibly beneficial in helping you to climax. Either you love 'em or hate 'em, but one thing's for sure: this ain't your grandma's lubricant.

Why Orgasms During Intercourse May Be Hard to Attain

In the case of some women, orgasms take quite a bit of time. Before signing on with such a partner, make sure you are willing to lay aside, say, the month of June . . .

—BRUCE JAY FRIEDMAN

The most sensitive part of the man's body is the underside of the shaft, near the tip of his penis. For the woman, it's the clitoris. The problem is that because the clitoris is situated outside the vagina, intercourse is usually not as intense for women as it is for men. In fact, as you read above, studies indicate that a large majority of women are unable to achieve orgasm through intercourse alone. Internalizing this one physiological fact and really understanding how it can impact a woman's sexuality is crucial for men who want to develop a truly loving, sexual relationship with their partner.

Because a lot of people don't fully understand basic human anatomy, misunderstandings in bed continually result. For example, women often fake orgasms because they don't want to hurt their partner's feelings or they don't think it's worth the longer time and effort it would take to actually have one. This type of deception can poison an intimate relationship, which is unfortunate, because it could so easily be resolved if both people understood the difference between male and female physiology. Needless to say, communication between partners is the key to developing a fulfilling and warm sexual relationship.

In any case, it's a good thing we don't live in the 1870s. John Davenport would have had us believe women shouldn't have orgasms at all. As he described it in *Curiositates Eroticae Physiologiae* (1875), the result of orgasm in women was that:

She burns and as it were, dries up the semen received by her from the male, and if by chance a child is conceived, it is ill formed and does not remain nine months in the mother's womb.

Indeed. In any case, it's more than a century later, and we're pretty sure that female orgasms don't cause birth defects anymore. But the length of time

it takes for a woman to climax can be frustrating if people don't understand how normal it is for women to take longer than men. Even if communication between a couple is completely open and healthy, women usually require quite a bit more stimulation to reach an orgasm.

Another potential problem is that many men assume that as soon as the woman has become lubricated, she is ready to be penetrated. For most women, this is not true. Vaginal lubrication is one of the *first* signs of arousal. It signals only that she is gradually becoming more interested in further foreplay. Most women still need considerable time and sensual (rather than sexual) touching to become fully aroused. In fact, one of the most common complaints women make about male lovers is that they rush through the motions and are too narrowly focused on the genitals rather than the whole body.

Increasing your chances of having an orgasm during intercourse

For some women, being asked if she has had an orgasm during intercourse is a sign that her partner doesn't really understand what excites her. In his excellent book *Sexual Solutions*, Michael Castleman asks men to develop a different sexual perspective:

Imagine your own feelings if a woman climaxed courtesy of your oral clitoral stimulation, then asked you: "Did you come?" Many men would resent the question: "How can you even ask if I've come? I've been stimulating you. You haven't touched me where it counts!" Women feel the same way.

And yet, there's a small but exceedingly lucky percentage of women who are able to have orgasms through intercourse alone. Human sexuality researchers speculate that one of the reasons may be that their C-V distance (their what?!) is less than an inch. In other words, the short distance between their clitoris and vagina makes them more likely to be able to achieve orgasm, since the closer proximity to their clitoris gives them a better chance of being stimulated by the man's penis.

The important point is that female sexuality varies as much within an individual woman as it does between women. In other words, not only can your sexual desires change from day to day and within different phases of your cycle, they may also vary from cycle to cycle as well. But guess what? Men can't read minds. So you need to be able to communicate your needs in order for him to help you have an orgasm, whether during sex play or intercourse itself.

Once a woman has had one, it's much easier to achieve another shortly after. And since we know that women are typically able to achieve an orgasm much easier through oral sex than traditional intercourse, it's also one of the best ways to complete foreplay. You may want to try having oral sex just up to the moment you are about to climax, and then follow through with intercourse, ideally in a position for you that is most conducive to climaxing.

Positions that offer the best stimulation

Women can increase their chances of orgasm by learning what positions best stimulate their clitoris. Many women who are able to climax during intercourse say that the optimal position is straddling on top of their partner, with one of them applying manual clitoral stimulation. Most agree that intercourse in the missionary position is simply not enough.

Intimate rocking position

As with my description of how to tie shoelaces in the first part of the book, trying to describe how to use a sexual position that is completely counterintuitive is just as clunky. The dubiously named "coital alignment technique," which you can see I've chosen to rename here, is similar to the missionary position, but instead of thrusting horizontally, the two rock up and down vertically, with him shallowly penetrating her.

It works best if the man lies about 4 inches higher, partially resting his upper body on top of hers. The benefit is that not only does he stimulate her clitoris with the base of his penis and pubic bone, but it also allows him to last longer. With practice, you should both be able to get into a rocking motion that feels natural and may ultimately help you to climax.

For those of you who find this position awkward (God knows that just

trying to describe it was!), there is a modified intimate rocking position that will allow the man to thrust. After he enters the woman, she pulls her legs tightly together between his, allowing the shaft of his penis to stimulate her clitoris.

I would have loved to include a picture of the position in this book, but I opted for you to use your imagination, or better yet, google it (“coital alignment technique,” that is). You likely won’t find a visual of the “intimate rocking position” anywhere on the internet, since my intern, Ruby, and I only recently coined the term over a latte in Seattle.

Positions that best stimulate the G-spot

For most women, the traditional missionary position is the least effective position for being able to climax, if for no other reason than that her two most sensitive areas—her clitoris and G-spot—are barely stimulated. Of course, if a woman has the great fortune not only to have a discernible G-spot but of also being with a man whose penis curves up at the end, she’s got it made. Otherwise, the best position to stimulate the woman’s G-spot is through vaginal entry from behind. This is because the woman can bend at the waist, allowing the angle of entry to maximize penile contact with the front wall of the vagina. Finally, the female-on-top position can also stimulate the G-spot, but not as easily or directly.

Exercises to strengthen your vaginal muscles

Finally, many people don’t realize that the vagina has muscles that can be strengthened just like any others. Both men and women find that sex can be more fulfilling when the woman has control over her vaginal muscles. The way to strengthen it is through Kegels or vaginal contractions, as described [here](#).

By simply tightening and releasing the vagina periodically during the day, you can increase sexual satisfaction for both you and your partner. You can do any combination of Kegels that’s comfortable. A key advantage of these exercises is that they can be done anytime, anywhere, without others being aware of it. You can do Kegels while talking to your grocer or giving a presentation at a corporate meeting, and no one will be the wiser for it. Do

them as often as necessary to maintain a healthy, strong vagina that promotes sexual gratification for both of you.

Female ejaculation

A small minority of women gush a clear, odorless substance from the urethra during orgasm. It's much more watery than semen is, and is comprised mostly of glucose and acid phosphates. And, no big surprise here—the same women who experience female ejaculation are often the ones who have no doubt that they have a G-spot.

These type of orgasms are more common through manual stimulation or a curved G-spot-stimulating vibrator, because they require more pressure and the right angle to provide direct stimulation to that area. As you know, it's already hard for most women to climax during regular intercourse without that added stimulation or, of course, direct clitoral stimulation.

If you would like to try to ejaculate with your partner helping you, he should try to find your G-spot, if you do indeed have one. As mentioned earlier, it would be about 1 to 2 inches inside your vagina, on the same side as your belly button, and again, it feels different from the rest of the vagina because it's slightly ridged. Using a “come hither” motion with his middle or forefinger, he should start to slowly stroke it, building intensity as you get more aroused.

One of the tricks to having this type of orgasm is to *push into it* rather than holding back when you have the sensation that you are about to climax. Of course, cover the bed with plenty of towels to avoid the inevitable “Who's going to sleep in the wet spot?” battle afterward.*

Why You May Tend to Feel Sexier Midcycle

Juicy, luscious, delectable, succulent, and delicious . . . no, I'm not talking about a pineapple. I'm referring to fertile cervical fluid, as described by renowned childbirth educator Sheila Kitzinger. Of course, most women develop slippery secretions as they approach ovulation. Since it feels wet and lubricative, women are conditioned to associate it with sexual arousal. But sexual lubrication tends to dissipate in a few seconds when waved in the air.

True fertile cervical fluid will usually remain on your finger.

Besides the similarity between fertile cervical fluid and sexual lubrication, something else is responsible for women's often feeling more sexual midcycle. The high levels of estrogen around ovulation act to heighten sexuality for many. They may also notice that their vaginal lips feel fuller and tend to blossom open. Again, this is related to increased hormones around ovulation.

These physical changes can make women feel especially sexy at this time. Unfortunately, this increased sexuality can admittedly be somewhat untimely for women who use FAM for natural birth control, as they often feel that their fertile phase is the time they especially want to have intercourse. But many FAM users view the fertile phase as a time to be especially creative with other forms of lovemaking, knowing that in a week or so they can resume intercourse again (of course, barriers can also be used during the fertile phase, but you will need to be exceedingly careful during this time and preferably double up on protection).

Why Intercourse Can Be Uncomfortable During Certain Phases of the Cycle

You may occasionally feel a deep pain during intercourse. Or perhaps you notice discomfort during certain sexual positions, especially when you straddle your partner. Remember that when your estrogen levels are low and you're outside your fertile phase, particularly after ovulation, your cervix tends to be low in your vagina. During these times, it's possible that your partner's penis can actually tap your cervix during intercourse.

The reason you may feel the discomfort only when you straddle him is that the cervix tends to drop lower in that position. This makes sense when you consider that one of the the best ways to check your cervix is by squatting, since this is the position that pushes the cervix to its lowest point. This doesn't mean that you can't ever enjoy sex in that position, but you should be aware of the fact that when you're in your infertile phase, your cervix may be too low to be comfortable, and you might want to adjust your position accordingly.

How Birth Control Can Affect Your Sexuality

It should come as no surprise that birth control can be a source of tension for many couples. Because no method is perfect, there may be drawbacks that undermine a couple's intimacy by tending to place the burden on the woman. For example, if a woman feels resentful that she has to endure urinary tract infections from the diaphragm, or vaginal dryness and loss of libido from the Pill, she may not be as receptive to intercourse as the man is.

But if she doesn't have to bear the brunt of the side effects and her partner participates in her charting, she will probably be much more sexually responsive. In essence, through his actions, he can show her how respectful he is of her body and comfort, and how much he wants to share in the responsibility of contraception. The fact is that birth control doesn't have to be a divisive issue in the bedroom.

Among my first clients was a charming couple, Amy and Alex. As we were reviewing her charts, I realized that the writing was barely legible. It said something about her menstrual cramps that day, but I couldn't decipher it. When I asked her what it said, she held it up to her eyes, squinted, then turned to Alex and said, "Honey, what did you write here? I can't read it either." As it turned out, the entire chart was in his writing, down to the most intimate details of her menstrual cycle.

How Your Partner Can Participate in Your Charting—and Why a Sensitive Guy Would Want To

Men fear women.

Men fear women period.

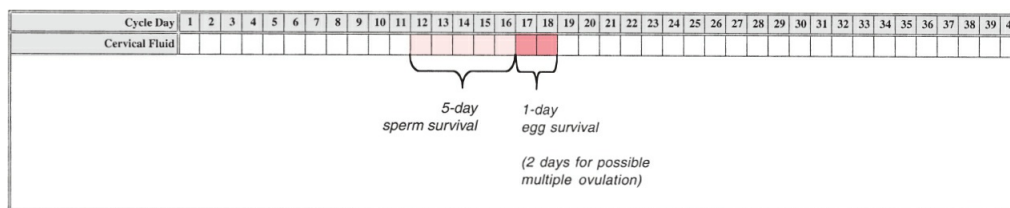
Men fear women's periods.

*Men fear women not getting their periods.**

Men are often criticized for not taking a bigger role in birth control. But the truth is that most men are caring and probably would be happy to be more

actively involved if only there was a way they could. As you've seen, there is a way with the Fertility Awareness Method. And rather than perceiving it as work, most people agree that the minute or two a day is so enlightening that it can be fun rather than a chore. Men who help their partners chart find that they discover a lot about them in the process. Ultimately, FAM can draw couples together.

The reality is that aside from a condom or vasectomy, the Fertility Awareness Method is the contraceptive most conducive to male involvement. Remember that the FAM rules were designed for the combined fertility of the man and woman together. Men are fertile every single day, whereas women are fertile only a few days per cycle. The first part of the woman's fertile phase is a reflection of the man's fertility (that is, the potential for sperm to survive 5 days in fertile cervical fluid). The second part is a reflection of the woman's fertility (that is, the potential for an egg to survive one day, with an additional day added for a possible double ovulation).



The woman's fertile phase is determined by both sperm and egg viability.

To put it more succinctly, then, a woman's fertile phase is a function of the respective fertility of both partners. Indeed, as Dr. Suzanne Poppema of Seattle so eloquently put it in an NPR interview, "I've taught our sons to know that they are responsible for each and every sperm that leaves their bodies until they know the sperm are either dead or have been used to help create a pregnancy."

Many men who learn about the menstrual cycle are struck with the idea that the length of their partner's fertility is primarily determined by their own continuous fertility, and thus feel equally responsible for contraception. By being so aware of their partner's cycle, they are more understanding and cooperative, because they can no longer feign ignorance. It's worth remembering that many accidental pregnancies result from a lack of

communication between the two partners. FAM is a wonderful way to involve both individuals equally in such an important aspect of a couple's life.

The Fertility Awareness Method encourages couples to communicate, simply put, because it's more effective if both partners understand it together. As you've seen, men often choose to do the actual charting. In order to record the woman's fertility signs, the man may record her temps in addition to asking her about all facets of her cycle—from what kind of secretions she had to whether she had breast tenderness or felt depressed during the day. In other words, he can become intimately in tune with his partner's biology and emotions by simply recording her chart and helping interpret her fertile phase with her. The potential for furthering intimacy is obvious. "If you can talk about cervical fluid," one of my male clients once joked, "you can talk about anything!"

THE GUY'S GUIDE TO BETTER SEX

Take out the darn trash. There. I said it. Millions of women around the world are probably sighing "Amen" to that. Understanding female sexual response is not all that big a mystery if men just internalize one of the cardinal concepts of female sexuality:

A woman is much more likely to be sexually responsive to her partner if she doesn't feel like she's his mother.

This brings us to the first concept below.

Choreplay

Several studies have finally validated what most women have experienced for years. Forget about locating her clitoris—for many women, there is nothing sexier than a partner who can find and use the vacuum cleaner! And most women will probably admit that what often gets their juices flowing is the sight of their partner spontaneously unloading the dishwasher without being asked. Who knew?

A man who helps with the daily minutia of life is undoubtedly more sexually attractive to his partner because she'll be less likely to

drop into bed, exhausted from having returned home from work, only to still have to cook, clean, and do laundry. Finally, she'll be able to relax, knowing that there isn't a lasagna-encrusted casserole dish in the sink and a pile of overflowing trash in the kitchen dating back to the Middle Ages.

The bottom line is that nothing squelches a woman's desire for sex quite like feeling like a perpetual nag. Or, worse yet, feeling like her partner's nagging mom. So rather than thinking that foreplay starts in bed just minutes before intercourse, you should assume that choreplay is a sexy precursor to all that happens that night.

Delayed gratification is so very underrated.

While people find it fairly challenging to delay gratification in most situations, the one time where both men and women are amply rewarded is when a woman is sexually teased and then teased some more. In other words, it's not just about technique. It's about building up anticipation. So, rather than reaching for her clitoris the minute you get into bed, begin warming her up hours before with subtle signs of affection or sexy texts during the day. And once in bed, realize that for many women, it's not just about intercourse—it's about that journey during the day leading up to it.

Don't go anywhere south until she is completely warmed up.

Nothing quite puts the brakes on a woman's sexual arousal like her partner's touching her clitoris before she is ready. For starters, inflicting pain should not be part of your lovemaking repertoire (well, save for the occasional S&M session, which we'll leave for another book).

In addition, remember that even if she starts to become lubricated, for most women, this is only an indication that she is starting to become aroused—not necessarily that she is ready to be touched on her clitoris. The best way to be sure that she is ready? As mentioned earlier: tease her by caressing her everywhere but her clitoris, until you have her begging to be touched there.

Bring her to orgasm before you have one yourself.

It tends to put a crimp on a woman's ability to climax when her partner

pulls out, rolls over, and starts snoring before she's even warmed up. And let's be honest, once a man has an orgasm, he's less likely to be motivated to help his partner. On the other hand, you'll appreciate the tradeoff when your partner is fully lubricated and ready to have intercourse after she's had her own. Or, if it's easier for her to bring herself to climax, make that part of your foreplay before you have intercourse.

Use sexual positions that allow for more clitoral stimulation.

Since her clitoris is outside her vagina, intercourse alone is simply not enough for most women. Of course, this is only an issue if your partner wants to orgasm during sex. Many women love having one before, since they find that it's too hard, distracting, and time-consuming trying to climax during intercourse, when they would rather focus on the wonderful intimacy that sex provides.



So there ya go. If you already do everything above, you must have one incredibly content and loving partner. But on the off chance that you might have learned a thing or two, you'll much more likely become the type of lover that your partner has always fantasized about.

Premenstrual Syndrome: You Mean It's Not All in My Head?

Ah, yes. Premenstrual syndrome: the common condition whose cause eludes researchers and doctors alike. At times, it seems as if there are as many theories about PMS as there are symptoms. “It’s a progesterone deficiency.” “No, it’s due to a vitamin deficiency.” “Actually, it’s related to prostaglandins.” “No, it’s obviously due to a neuroendocrine imbalance.”

In fact, after finally winning the perennial argument that PMS is a real condition, women may be a bit chagrined to learn that yet again, the validity of their symptoms has come into question. In 2012, a widely publicized study found a woman’s premenstrual mood swings in particular may be just a reflection of the fact that they’re . . . um, moody. Well, as a practitioner who’s reviewed a chart or two, I’m going to write this brief overview, on the assumption that PMS is real and that it affects women in all kinds of physical and emotional ways.*

So, with that in mind, what is PMS? Basically, it is a recurring condition that can cause a variety of unpleasant physical and emotional symptoms in the luteal (postovulatory) phase of the woman’s cycle. Although most women tend to experience it in the week or so leading up to menstruation, it can happen anytime from ovulation on. It primarily affects women over 25 and tends to worsen with age, especially for women who have given birth. The timing of the symptoms is often consistent within each woman, and thus charting may give you the opportunity to deal with it constructively.

🌸 THOSE DELIGHTFUL SYMPTOMS

It's been estimated that as many as nine out of ten women experience at least some form of PMS during their reproductive years. Since it's unclear what causes it, there are different theories as to how best to treat it. So if you are adversely affected by PMS, I would encourage you to explore your options, since there are practical ways in which you can alleviate many of your symptoms.

Even the way symptoms are categorized varies among clinicians. Still, many classify them using some variation of what Dr. Elizabeth Vliet, in her book *Screaming to Be Heard*, refers to as "the seven PMS clusters." They are shown in the box below.

TYPES OF PMS SYMPTOMS*

Affective	Depression, irritability, anxiety, anger, tearfulness, panicky feelings
Behavioral	Impulsive actions, compulsions, agitation, lethargy, decreased motivation
Autonomic	Palpitations, nausea, constipation, dizziness, sweating, tremors, blurred vision, hot flashes
Fluid/Electrolyte	Bloating, water-weight gain, breast fullness, hand and foot swelling
Dermatological	Acne, oily hair, hives and rashes, herpes, and allergy outbreaks
Cognitive (Brain)	Decreased concentration, memory changes, word-retrieval problems, fuzzy thinking, foggy-brain feelings

Pain

Migraines, tension headaches, back pain, muscle and joint aches, breast pain, and neck stiffness

PREMENSTRUAL DYSPHORIC DISORDER (PMDD)

If what you experience in your luteal phase is so severe that it interferes with virtually all facets of your life, you probably have PMDD: Premenstrual Dysphoric Disorder, an intense form of PMS. It is similar to PMS, but if you have at least five of the symptoms in the list below (of which one is from the top four) you're more likely to have PMDD:

- feeling sad, hopeless, or self-deprecating
- feeling tense, anxious, or “on edge”
- marked mood changes interspersed with frequent tearfulness
- persistent irritability, anger, and increased interpersonal conflicts
- decreased interest in usual activities, which may be associated with withdrawal from social relationships
- difficulty concentrating
- feeling fatigued, lethargic, or lacking in energy
- marked changes in appetite, which may be associated with binge eating or craving certain foods
- hypersomnia or insomnia
- a subjective feeling of being overwhelmed or out of control
- other physical symptoms, such as breast tenderness or swelling, headaches, joint or muscle pain, a sensation of bloating, weight

gain

In order to be properly diagnosed, you must experience these symptoms during your luteal phase, and they will usually resolve within a few days of starting your period. However, if you experience them in your preovulatory phase as well, you most likely do not have PMS or PMDD, and will need to explore other possible conditions.

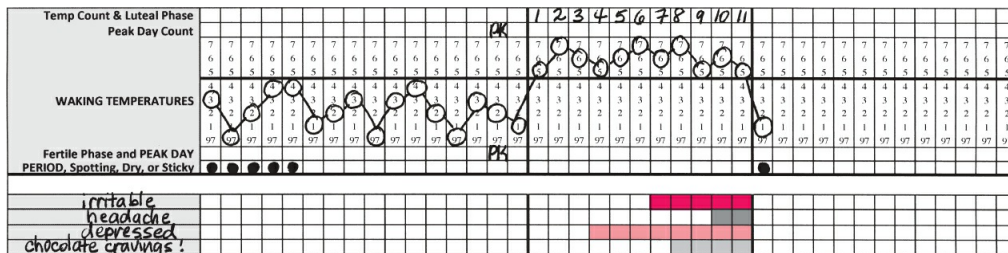
DIAGNOSING AND CHARTING PMS

The most important point in diagnosing Premenstrual Syndrome is that you determine whether the symptoms are cyclical in nature. Of course, its recurring nature is caused by the hormonal changes that occur in an ovulatory cycle. This means that, technically, women who don't ovulate shouldn't experience classic PMS. That would include preadolescent girls as well as those who are pregnant or postmenopausal. One would also expect women on the pill to not experience PMS symptoms, since they don't ovulate either, but for inexplicable reasons, they often have heightened symptoms.

When trying to determine if you even have PMS, the first step is to chart your symptoms along with your fertility signs. By recording both, you can verify whether they're cyclical and what factors may trigger them. Most women with PMS tend to notice the same symptoms from cycle to cycle. The best way to monitor the various symptoms is to write them to the left of the narrow columns at the bottom of your master chart, as in Daisy's chart below.

Many women find that color coding is an excellent way to immediately visualize when they occur in the cycle. Use colors that you associate with various conditions. For example, if you feel irritable, use an annoying color such as fluorescent green. Or:

- Depressed Blue
- Headache Red
- Breast tenderness Pink
- Chocolate cravings Brown



Hannah's chart. Charting PMS signs. Hannah records various PMS signs using different colors near the bottom of the chart. This allows her to quickly determine whether her symptoms are cyclical or indicative of a problem requiring medical attention.

🌸 TREATING PMS

Once you have determined the cyclical nature of your PMS symptoms, you can decide on the appropriate steps to take. Many women find that just being able to anticipate when they will occur can help deal with them. When you realize that your depression, irritability, or headache is only a sign that your period is a few days away, you should have less cause for concern. Often the symptoms themselves create needless anxiety as women wonder if they are “going crazy” or suffering from a serious illness. The knowledge and control that come with charting can be the first step in managing PMS.

There are many self-help therapies that seem to work well for women, but if you suffer severe symptoms, I would encourage you to get medically evaluated before attempting to treat yourself through change in diet, vitamins, or minerals. Severe PMS (such as debilitating depression or panic attacks) can be an indication that you have underlying problems that may require hormone therapy.

Treatments range from alternative health care to traditional medical therapy, with self-help approaches somewhere in the middle. Your goal should be to discover the best solution for your particular situation. I have listed self-help treatments first, since they tend to be the easiest and most accessible for most women.

Self-Help Approaches

Self-help therapy is geared toward preventing PMS altogether, rather than just treating the symptoms. Of course, you may not always be able to do so, in which case you may want to take one of the over-the-counter drugs discussed [here](#). If you are charting your cycle, be on the lookout for when you have your thermal shift, so that you can be especially attentive to the following suggestions.

Dietary Considerations

There is probably no better way to control PMS symptoms than proper

diet. The nutritional guidelines recommended by almost all experts emphasize a well-balanced diet of whole grains, fruits, and vegetables, including legumes. And, as expected, PMS symptoms can be greatly alleviated by dramatically cutting back on everything that you no doubt love, including most foods that are high in sugar, salt, and fat. Substances such as alcohol, nicotine, and caffeine—and, yes, even chocolate—should be avoided. Of course, the cure may be worse than the condition. Believe me, I hear ya. But regardless, you may want to increase your intake of complex carbohydrates while decreasing that of protein, as well as eat more frequent, smaller-portioned meals.

You should know that many nutritionists believe that a variety of vitamins, minerals, and herbs may go a long way in alleviating various PMS symptoms, such as vitamin B6, vitamin E, calcium, magnesium, and evening primrose oil. Finally, many women appear to get excellent results from using the supplement Optivite P.M.T., as well as others with similar ingredients.

Exercise and Yoga

You just can't seem to get away from advice to exercise, can you? Whether your concern is weight loss, lowering cholesterol levels, maintaining cardiovascular fitness, or PMS, the bottom line is that exercise is an excellent therapy for numerous ailments. One reason is that it activates the production of endorphins, a naturally occurring stimulant in your body. This explains why people usually feel so good after exercising. The trick to using exercise to benefit you the most is to maintain a regular exercise program of at least three to five times a week, about 30 minutes each session.

In addition to vigorous exercise, yoga is an excellent source of relief for many PMS sufferers. Traditionally, the goal of yoga has been to promote balance and harmony. Adherents of yoga will tell you there's nothing better for promoting health on all levels—physical, mental, emotional, and spiritual.

Rest

Of course, once you've exercised, you have to rest sufficiently to maintain optimal health. The common wisdom is that people should get at least 7 to 8 hours of sleep per night. Some need more. Ultimately, your body will tell you what feels best. Some women find that something as simple as going to bed earlier helps lessen PMS symptoms.

Stress Reduction

Who today doesn't experience stress at least occasionally? Of course, some stress is inevitable. Still, do whatever you can to eliminate at least some of it from your life, whether it be through massage, yoga, meditation, dancing, or going to a movie. Whatever you do, at least be aware that stress in the postovulatory phase is going to exacerbate your PMS symptoms.

Coping with Emotions

For many women, one of the most distressing aspects of PMS is feeling out of control every cycle. It's as if their emotions are exaggerated tenfold. It can be especially distressing to women who are used to thinking of themselves as caring and warm people. They often feel as if their anger, anxiety, or depression are out of character for them. But remember, women in our society are socialized to always be nice, always be the caretaker, always be giving, and never show dissatisfaction. Perhaps a better way to perceive your premenstrual emotions is to recognize that it is a time when you finally allow yourself to express the frustrations society expects you to suppress.

Of course, if you feel that the intensity of your emotions during this time is incapacitating or harmful to your relationships, you may benefit from the help of a therapist in addition to consulting a clinician. Because therapists are more objective, they can often help clarify if the problem is hormonally based. Remember, PMS doesn't cause emotions, but it will exaggerate what is already there.

Nonprescription Drugs

There are currently a variety of over-the-counter drugs designed to deal with specific PMS symptoms. These drugs, which include various analgesics, antihistamines, and diuretics, have proven effective against such symptoms as uterine cramps, headaches, and breast tenderness. Again, I suggest that you read the relevant sections of a more comprehensive PMS book or, at a minimum, talk to an informed pharmacist. Finally, it should be clear that while drugs such as Tylenol and Advil will certainly relieve many discomforts, a concerted regimen of healthy diet and vigorous exercise would do more by minimizing such symptoms in the first place.

Complementary Health Care

As mentioned in [Chapter 9](#) on natural ways to balance your hormones, traditional Chinese medicine as well as naturopathic treatments may be helpful for some women, but you need to consult a qualified practitioner who is trained to diagnose you as a whole person, and not just examine your symptoms. Some successfully use either acupuncture or acupressure, both of which perceive PMS as the result of imbalance or blockage of vital energy, or qi (pronounced “chee”). Osteopathy, reflexology, and aromatherapy may be helpful as well. Of course, in all these cases, you need to consult a professional to determine if these might work for you. Many of the more specialized PMS books discuss the theory and practice of complementary treatments in more detail.

Using Drugs and Alternative Therapies Together

You may prefer to try to eliminate PMS through the natural alternatives just discussed. However, your symptoms may be so severe that you might want the quick relief drugs can provide. The good news is that natural and medical therapies aren't mutually exclusive. You can use medication for severe symptoms while simultaneously changing your lifestyle to try to prevent PMS symptoms in the future. Eventually, then, you could go off drugs altogether and rely strictly on natural means to control your symptoms.

Traditional Medical Treatments

There are a number of standard medical therapies that you may want to try. But before consulting with your physician, it will help to have charted your symptoms for several cycles so that he or she can efficiently arrive at the most accurate diagnosis.

Diuretics

Many doctors prescribe diuretics for women whose PMS causes weight gain, bloating, and breast tenderness due to fluid retention. However, some clinicians believe that the first treatment should be to balance hormones and improve diet, allowing the symptoms to diminish on their own.

Hormone Therapy

Unfortunately, because there are conflicting theories regarding the primary cause of PMS, the proposed hormonal treatments also vary. Those who think that it's due to low estrogen levels in the luteal phase believe that an oral contraceptive with the least amount of progestins may provide substantial relief for those with severe PMS, but you probably know by now that you would likely be better off avoiding the pill. Those who think it's due to a progesterone deficiency believe that natural progesterone creams rather than artificial progestins utilized during the latter 2 weeks of the cycle can be effective in diminishing symptoms.

If you prefer to use the more natural approach, you should try to consult with a doctor who is familiar with the use of the newest progesterone creams. Although there may be some risk to certain women, they are generally easy to use and have few side effects. Progesterone therapy has now gained wide acceptance as a treatment with potentially great benefits for many women.

Tranquilizers, Antidepressants, and Mood Stabilizers

If you suffer from serious postovulatory anxiety, mood swings, or depression, your doctor may prescribe any number of tranquilizers or antidepressants, especially serotonin reuptake inhibitors (SSRIs), which seem to provide at least some relief. Some work by elevating levels of neurotransmitters like serotonin and norepinephrine—chemicals in the brain that regulate personality, mood, sleep, and appetite.

Antiprostaglandin Medication

Probably the most painful symptom of both PMS and menstruation is uterine cramps. We now know that they are caused by imbalances in prostaglandins—chemicals produced in the uterine lining that increase prior to menstruation. Luckily, there are effective drugs such as Motrin that eliminate cramping.

PMS, Conventional Medicine, and Long-Term Solutions

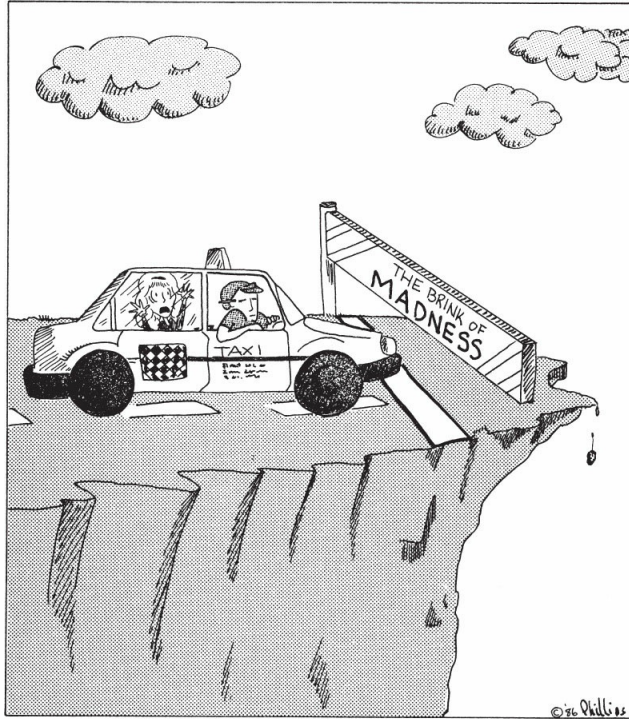
You should keep in mind that there are always potential side effects whenever you take any drugs. And remember that while medications can be extremely useful in eliminating PMS symptoms, they will be effective only as long as you are taking them. Since PMS is known to often get worse with

age (lucky us!), that could mean years on drugs or hormone therapy for women who are severely affected. Still, while the dietary suggestions and other natural alternatives may involve some sacrifice, at least you know that there are a number of choices that offer relief.

✿ KEEPING SANE ALL CYCLE LONG

The reality of womanhood is that PMS is an unfortunate fact of life for many, and even a fairly debilitating condition for some. Like menstruation, it's hardly an experience that most women would choose to have. But treatments exist, and you do have some influence in restricting its severity, if not achieving its complete prevention. Perhaps as important, you may have the ability through charting to pinpoint your own PMS pattern, allowing you to take preventive action in the days immediately prior to its usual arrival.

One small advantage of advanced warning may also be to alert your partner, who could be sensitized to the cyclical basis for your physical and emotional changes. By being attuned to your cycle, your partner can understand why, for example, you may be feeling depressed or premenstrually unresponsive, sexually or otherwise. Such knowledge on his part won't make PMS go away, but with both of you sensitive to your cycle, it can help minimize its impact.



Peggy is driven to
the brink of
Madness

“The Brink of Madness,” PMS Attacks, by Steve Phillips, copyright © 1986 by Steve Phillips, used by permission of Ten Speed Press, P.O. Box 7123, Berkeley, CA

Demystifying Menopause

Perhaps with education and proper perspective, we can look forward to the day when people will stop viewing menopause as a crisis, or even as “the change,” and see it more appropriately as “yet another change.” For living is constant change. That is its essence and its promise.

—DR. KATHRYN MCGOLDRICK, former editor-in-chief of the *Journal of the American Medical Women’s Association*

Menopause. The word itself evokes countless emotions in women—everything from dread and fear to excited anticipation and relief. But back in the day, the word wasn’t even uttered aloud. For some reason, it was a stage in a woman’s life that was simply not discussed in polite company. Perhaps a lot of the stigma formerly associated with menopause related to a woman’s primary role being defined as a mother, since it’s true that menopause signals the end of the biological potential to reproduce.

Luckily, things have changed considerably. Women’s roles have expanded dramatically, and society no longer defines a woman simply by her capacity to give birth. Today, many women are making the decision not to have children altogether, yet they still feel feminine and fulfilled.

Interestingly, there is a correlation between a woman’s age at menopause and that of her mother’s. In fact, studies show that if a mother went through menopause fairly early, her daughter may, as well. (See [diminished ovarian reserve](#) section.) Just knowing this one scientific fact may help women to

better plan whether or when they might want to try to get pregnant.

Needless to say, the topic of menopause is so huge that I couldn't do it justice in just one chapter. I would encourage you to read about it more thoroughly in any number of excellent books available today. The reality is that this topic and, more specifically, the associated issue of hormone therapy, represent a continually evolving body of knowledge that can make your eyes glaze over. So it will require serious research to make the most informed and best decisions for your own health.*

🌸 WHAT EXACTLY IS MENOPAUSE?

“I thought it was when women stopped having periods.”

“Isn’t it when women run out of eggs?”

“I think it’s when women reach about fifty.”

“It’s when a woman can finally enjoy sex without having to worry about getting pregnant.”

Actually, all of the above have kernels of truth, but I should first clarify a few terms, listed in the box below.

Menopause	In the strict biological sense, this refers to the permanent cessation of menstruation resulting from the loss of ovarian follicular activity—it’s basically a mouthful to say “the final menstrual period.”
Premenopause	In the context of menstrual cycles, it refers to the years leading up to menopause when the cycles start to change. But it can also simply mean anytime before a woman goes through menopause.
Perimenopause	This refers to the years immediately prior to menopause through the first year after. Or, as I like to call it, “Good Times.”
Climacteric	This is a dated term for the transition from the reproductive years to the nonreproductive state. It generally lasts about 5 years.
Change of life	This is a somewhat euphemistic and also dated term used to include the emotional, intellectual, and obvious physical changes that a woman

	experiences during this transitional time.
Primary Ovarian Insufficiency	This is now the correct term that refers to the loss of function of the ovaries before age 40.
Premature Menopause	This term has now been replaced by the more accurate expression listed immediately above, and refers to the loss of function of the ovaries before age 40.

In brief, the road to menopause is a decade-long continuum in which the average woman's ovaries will gradually become less and less efficient until they eventually stop responding to the hormones that ultimately lead to ovulation. But it's important to note that for some women, the process can start well before 40 years of age, and thus you could find yourself experiencing some of the classic menopausal signs discussed below, years before you thought you would.

Women with this condition, called Primary Ovarian Insufficiency (POI) but formerly called premature menopause, are often put on hormone therapy until about age 50, since the most serious symptom is diminished estrogen, which can lead to higher risk for health issues such as osteoporosis and heart disease. In addition, if you think you are going through POI and you would still like to get pregnant, I encourage you to read about your options [here](#).

Regardless, menopause is a uniquely individual experience. Some women glide right through it, barely noticing any changes at all. Others have a harder time, often choosing medical assistance to cope with the challenges it presents. The only definitive statement that can be made is that menopause is when menstruation stops, which for the average woman is around age 51.

One day, you too may have the joy of passing the baton, as it were, to either your daughter or niece. I had that privilege when I was 55 and my brother Robert's daughter, Sabrina, was 17. She and I were traveling together to visit one of my dear friends when I secretly packed a special gift to give Sabrina when the clock struck midnight on August 27th. It was at that moment that my charts told me that it had been a year since my last period, and I had now officially gone

through menopause. It was time for me to pass on the metaphorical ceremonial tampon.

So while the two of us giggled and hugged, I happily handed her the symbolic red-ribbon-wrapped tampon. What made that night even more special was the fact that as the minute hand on the clock passed over midnight, we celebrated five years to the day since she herself got her first period.

🌸 CLASSIC SIGNS OF IMPENDING MENOPAUSE

The most obvious way to tell if you are nearing menopause is by noticing the three classic signs that most women experience to varying degrees:

- menstrual cycle irregularities
- hot flashes
- vaginal dryness

Medical professionals refer to them as symptoms, but it makes more sense to refer to them as signs. After all, “symptoms” imply disease, and certainly menopause is nothing more than a natural passage of life. Many women have questioned the medicalization of menopause, just as they have insisted on natural approaches to birth control, getting pregnant, and childbirth. They want to perceive it as a healthful part of their lives—perhaps different, but with distinct advantages.

Gail Sheehy, author of the groundbreaking book *The Silent Passage: Menopause*, describes what it was like to educate people about this universal transition:

As I traveled around the United States giving lectures and appearing on TV and radio talk shows, the conversation about menopause had to be started up from scratch in each city. . . . Reactions from male talk show hosts were sometimes comical. “Menopause,” gulped a Cleveland man on the midday news. “Is that like—impotence?” “Um, no,” I murmured lamely. “. . . Baldness. Is that like Alzheimer’s?”

Menstrual Cycle Irregularities

One of the first signs of impending menopause is a change in your menstrual cycle. About 80% of women experience some kind of cyclic change, perhaps as early as about seven years before. Typically, women first find that their periods become heavier and more frequent as their cycles shorten. But eventually, their periods start to become lighter and less frequent as their

cycles become longer and ovulation becomes more sporadic. These latter changes are due to ever-decreasing levels of estrogen.

If you find that your periods are getting unusually heavy, there are some practical tips that you may want to reconsider. Try to avoid excessively hot showers and baths whenever you're bleeding. In addition, you should avoid alcohol and aspirin throughout the cycle, both of which inhibit blood clotting. But the best thing you can do is to maintain a lifestyle of steady and vigorous exercise, which will help adjust the hormonal imbalances that are causing the heavy bleeding in the first place.

Of course, irregular or heavy bleeding could be symptomatic of various medical conditions, including pelvic infections or even a uterine fibroid, which is a fairly common occurrence as women get older. Therefore, it's especially useful during this time to continue charting and report any conspicuous abnormality to your clinician.

Hot Flashes

You may be one of the lucky few who manage to coast through menopause with no discomfort whatsoever. Unfortunately, though, the vast majority of women experience hot flashes at one time or another during their perimenopausal years. They can start while your cycles are still regular and often continue through to about two years after your last menstrual period. In some women, they may persist several years longer. The unpleasant episodes may last anywhere from a few seconds to a few minutes. They may occur once a week or even once an hour! Oh joy.

You may experience hot flashes as nothing more than the feeling you get when you've just stuck your foot in your mouth at a dinner party—that familiar passing warmth on your face or upper body. But you may also experience them as a drenching sweat accompanied by chills. In rare cases of extreme intensity, they may even occur with heart palpitations and feelings of suffocation. Many women describe feeling an “aura” just before—a distinct sense that they are about to have a hot flash. Some even feel anxious, tense, dizzy, nauseous, or a tingling in the fingers a few seconds in advance.

Researchers believe that hot flashes are caused by changes in the hypothalamus, the master gland in the brain that controls, among other

things, body temperature and cyclical fertility hormones. These changes are a result of declining levels of estrogen, which, ironically, trigger the body to turn on a misguided hormonal cooler. In essence, then, hot flashes reflect an inappropriate lowering of the body's natural thermostat.



“Maxine’s Crabby Road,” 2001, reprinted with special permission from Hallmark Licensing, Inc.

There are several practical things you can do to make life easier while going through what may be a transition over several years. You should try to wear clothes made of either cotton, fibers that allow you to breathe, or wicking fibers often found in athletic wear, because the key is literally to stay cool. Among the most exciting products on the market are the countless new items that allow you to remain comfortable for up to several hours at a time (for example, cooling bandanas you can wear around your neck or forehead). And obviously, it's best to avoid hot weather, or at least have continual access to cold water.

As with everything else, get plenty of vigorous exercise and maintain a well-balanced diet, including lots of fresh fruits and vegetables. Many women find relief from including soy-based products in their diet. Soy is a naturally occurring plant compound that mimics estrogen. You should, however, be wary of some of the hype surrounding it. And you might want to limit it to only a few times a week because it can block the absorption of needed nutrients. The ideal forms reduce that drawback and include tofu, tempeh, and miso. (Of course, if you are like my colleague, you too may exclaim, “Tofu? Yuck! I’d rather have hot flashes!”)

The most commonly prescribed medical treatment for hot flashes is hormone therapy (HT). By replacing the estrogen that has plummeted to such a low level, HT is nearly 100% effective in eliminating them. However, HT is controversial and not without its side effects and potentially serious risks, as discussed [here](#).

Finally, many women who chart may find a pattern to their hot flashes. Recording them can help you feel more in control, by allowing you to be psychologically prepared for when they return.

Vaginal Dryness

One of the most commonly experienced and least discussed effects of menopause is the drying of vaginal tissue, again due to progressively dropping estrogen levels. Women are typically too embarrassed to talk about it, feeling that it must be their unique problem. But, in fact, most women find that their vaginas take longer to become sexually lubricated as menopause approaches. Some may even feel irritated by the type of stimulation that they previously found pleasurable.

While menopause can definitely lead to vaginal dryness, there are practical things you can try to keep your vagina lubricated, including taking more time for foreplay and using water-based lubricants. If you still find that you have vaginal dryness that makes intercourse uncomfortable or even painful, you may want to try estrogen therapy in cream form. This should relieve dryness or soreness in the vagina, usually within a week or two. Creams are often recommended over pills because they don't pose as many side effects or health risks as oral medications do. However, be aware that many clinicians believe that any time you use estrogen, you should balance it with progesterone.

Confusing Irregular Cycles with a Pregnancy

Keep in mind that unless you chart your cycles, menopause may make you think you are pregnant when you are not. The reason for this is that you may seem to skip periods (which, as you should know by now, are just very long cycles). In fact, "missed periods" may be normal during this transition, though they could also be a sign of pregnancy. If you are charting, there are

two ways to tell the difference between the two:

- You are likely pregnant if you have more than 18 consecutive days of high temps above the coverline, especially if you also experience tender breasts and nausea. (However, you'll need to confirm it with your doctor. Home pregnancy tests are unreliable during premenopause due to fluctuating pituitary hormones.)
- You are probably not pregnant if your temperature pattern shows consistently low temps, or a delayed ovulation that indicates that you are merely having a long cycle. These extended cycles become increasingly likely if you are experiencing hot flashes and vaginal dryness.

A WORD ABOUT MENOPAUSE AND OVULATION PREDICTOR KITS

A tempting way to detect if you are still ovulating is through one of the many ovulation predictor kits widely available. But you should know that these kits can be especially unreliable if you are indeed nearing menopause. The reason for this is that premenopausal women tend to have exceedingly high levels of LH that don't necessarily trigger ovulation.

In addition, using the kits to detect menopause is impractical since a woman may ovulate so sporadically during this time that it would be nearly impossible to pinpoint when to even use them. Because they usually only come in 5- or 9-day supplies and cost from \$20 to \$50 or more a kit, you would be spending a pretty penny to verify whether you're still ovulating. Charting is cheaper, easier, and simply more accurate.

🌸 **HORMONE THERAPY (HT)**

These days, it isn't raging hormonal imbalance that drives a postmenopausal woman berserk. It's raging medical debate. Some 30 to 40 million American women want a definitive answer on estrogen, and instead, they're getting the daily odds.

—ELLEN GOODMAN

Few issues in medicine evoke more confusion and contradictory reactions than hormone therapy. Should menopausal women take artificial hormones or not? Are bioidenticals the way to go? The debate is often extremely heated, and ultimately inconclusive. The bottom line is that there is no ideal answer. Each woman's situation is unique, and will have to be thoughtfully discussed with her own physician.

Part of the controversy over HT stems from the fact that when it was first prescribed, in the 1930s, not much was known about its potential long-term effects. It wasn't until years later that it was discovered that the type of estrogen therapy then being practiced would increase a woman's risk of uterine and breast cancer. In the 1970s, research showed that women who took estrogen were several times more likely to develop cancer of the endometrial lining than those who did not.

Pharmaceutical companies and many doctors stress that things are dramatically different today. They cite several reasons for prescribing the new models of HT, including the fact that the modern therapies contain a lower dosage of estrogen and are combined with progestins (a form of progesterone), to balance the negative effects of estrogen. Nevertheless, there still may be a slightly increased risk of breast cancer, strokes, and heart attacks.

Today, one of the most commonly prescribed estrogens is Premarin. It's referred to as a conjugated estrogen, and is considered the most natural estrogen available. And where is it extracted from? The urine of pregnant horses, of course!*

A Brief Look at Bioidenticals

Obviously, in the context of HT, the word “natural” is now most closely associated with bioidentical hormones, which are, alas, an area of as much controversy and confusion as HT in general. So what exactly are they? Definitions vary (of course!), though the Endocrine Society says they are “compounds that have exactly the same chemical and molecular structure as hormones that are produced in the human body.” But, unlike the actual estrogen and progesterone in your body, they are usually derived from sources such as soy and wild yams, and are often produced at a compounding pharmacy.

Those that are compounded by pharmacies are not FDA approved or regulated, but a new generation of FDA-approved bioidenticals is now being produced by certain pharmaceutical companies. Many clinicians recommend those that are regulated because you can at least be sure they are safe from impurities and contain what the labels say they do.

Regardless of how these substances are formulated, it’s clear that millions of women have been attracted to the concept of bioidenticals because they want nothing more than to get relief from their menopausal symptoms without the requisite risks and side effects typically associated with traditional HT. And yet, despite their most ardent supporters, the evidence is mixed and it’s simply not clear if bioidenticals are actually safer than synthetic hormones.

Deciding What’s Right for You

While most women let the severity of their menopausal signs play a dominant role in deciding whether to take HT, you should also be sensitive to more subtle factors that could tip the scales in your own particular case. Indeed, the development of bone loss, glucose intolerance, or even higher cholesterol should be discussed with an informed physician, as should other factors such as your family medical history. In any case, if you do ultimately choose to take HT, you should remember that every woman’s body and medical situation is different, and that the amount and type of hormones you take should be a function of your own specific health needs.

What Hormone Therapy Cannot Treat

It's often tempting for menopausal women to look to HT as the magic pill that's going to resolve all sorts of problems. The fact is that there are a number of things that HT will specifically not prevent, including depression, wrinkled skin, and weight gain. Alas, I'm afraid it's true, your metabolism really does slow down as you age. But it's also true that HT may make you feel better by treating the symptoms that cause your anxiety.

What Hormone Therapy Can Treat

There is no question that HT can relieve hot flashes and vaginal dryness. It also helps maintain the acidity of the vagina, making it more resistant to infections. And, far more significantly, most researchers agree that HT can help prevent osteoporosis. Still, it should be made clear that HT will help these specific problems only while you are taking the hormones. Once you discontinue, the problems will often return. This is particularly true with hot flashes. You should also remember that hormones will not restore bone density to their premenopausal level. It will only prevent bone loss for as long as you remain on the therapy.

Risks of Hormone Therapy

Despite the addition of progestins to counter the adverse effects of estrogen, HT could increase the risk of heart attack, stroke, blood clots, and breast cancer in certain women. This increased danger may be greatest for those who already have a higher risk, including women who have a family history of those conditions, are diabetic, or are substantially overweight. Finally, older women who are already postmenopausal are also considered at a significantly higher risk.

However, many clinicians still believe that HT, whether synthetic or bioidentical, has an important role to play for women suffering from serious menopausal symptoms, so long as they are still premenopausal, have no significant risk factors, and are prescribed the correct dosage and blend of estrogen in combination with progesterone.

Side Effects

In addition to the potentially increased medical risks, there can be annoying side effects. Among the more common are nausea (especially if taking high-dose estrogen), fluid retention, and fibroid enlargement. And some will continue to have cyclical vaginal bleeding, though it is usually shorter and lighter than typical menstruation.

HT: Balancing the Data

The reality of HT is that potentially serious problems need to be weighed against some very real and substantial benefits, with each individual woman judging how the pros and cons balance out when applied to her own personal situation. If you are considering HT, you will definitely need to consult with a clinician who is experienced in this field. This is clearly an important and complicated subject, and one with which I urge you to keep current. There are many factors to consider, but ultimately you can make a rational decision, as long as you are informed.

✿ MENOPAUSE AND SEXUALITY

Menopause has a paradoxical effect on female sexuality. But just to set the record straight: it does not signal the end of a woman's sex life! While it's true that it tends to cause vaginal dryness, it finally frees women of the fear of pregnancy. The liberating feeling that results can be more than enough to compensate for the extra effort that it may take to become sexually lubricated. In fact, many women find their sex lives improve when they no longer have to worry about pregnancy or menstruation.

TESTOSTERONE AND WOMEN—WHO KNEW?

Though we normally think of testosterone as an exclusively male hormone, the reality is that women produce small amounts of it from puberty onward. True, men produce about 20 times as much as women do, but the tiny amount that women produce is essential for much of their well-being. Unfortunately, though, as they age, and especially as they approach menopause, their testosterone levels may fall so much that it can cause dry skin and brittle hair as well as some truly disconcerting symptoms, including a loss of:

- sexual desire and sensitivity
- vital energy or feelings of well-being
- mental sharpness
- muscle tone
- pubic hair
- calcium from bones, contributing to possible osteoporosis
- muscle tone in the bladder and pelvis, resulting in urinary incontinence

Over the last few years, testosterone supplementation has emerged as an increasingly popular therapy for women during perimenopause and after. There are also other groups of women who suffer from

testosterone deficiency and could benefit from such supplementation, including those who have had a hysterectomy (even if the ovaries have been left in place), those who have had chemotherapy resulting in loss of ovarian function, and those who go through menopause earlier than the average age of around 51.

The evidence for testosterone treating most of the symptoms above is mixed, but it does appear to have encouraging results in dealing with lack of sexual desire and libido. Regardless, though, if you are considering testosterone supplementation, you will need to find a clinician who is familiar with this therapy, not least because it's crucial that you take the appropriate dosage.

✿ FERTILITY AWARENESS FOR BIRTH CONTROL DURING THE PREMENOPAUSAL YEARS

Some medical practitioners warn against using natural birth control when you begin to have menopausal signs, because of the irregularity of cycles during this time, but this advice shows a misunderstanding of how the Fertility Awareness Method works. Yes, it is true that cycles tend to become more sporadic for women in their 40s, but the key to FAM is that each individual day is observed for possibly fertile conditions, and thus the cyclic consistency is almost irrelevant.

What is relevant is that many premenopausal women may have fertile cervical fluid patterns for increasingly longer periods of time (such as preovulatory sticky day after day). This is both the potential frustration and irony of FAM in the years approaching menopause, for while the method's conservatism may tell a woman she is fertile more days than ever, the fact is that as she ages, her potential fertility is diminishing rapidly.

The truth is that using FAM during the menopausal years can be confusing, but, depending on your own particular cycles, it may also be easier than ever before. Indeed, you may go for months at a time with nothing but dry, infertile days. Regardless, using FAM will provide you with an amazing window into the workings of your body as it travels through “yet another change.”

How to Determine Whether You Are Near Menopause

Using FAM during menopause may involve some modifications, but before using the special guidelines, you obviously need to determine how close to menopause you actually are. As discussed previously, you will generally have distinct symptoms to alert you, in addition to the fact that you will most likely be in your 40s as the transitional time arrives. As you know, the most distinct signs signaling the premenopausal transition period are menstrual cycle irregularities, hot flashes, and vaginal dryness.

An alternative way to determine how soon you will go through menopause is to have the very test developed to determine your chances of having a baby—the antral follicle count discussed [here](#). While its purpose is to predict how many eggs a woman has left in her ovaries (her ovarian reserve), the information gleaned can be useful regardless of whether or not you want to achieve a pregnancy.

✂ CHARTING YOUR FERTILITY SIGNS AS MENOPAUSE APPROACHES

If you decide that you want to chart your cycles for birth control, brace yourself for quite a ride. You can still use the method effectively, but this phase may be a challenge. Whatever your choice, charting will reflect your hormonal changes, giving you a sense of control over your seemingly unpredictable body.

When charting premenopausally, anticipate significant changes in your typical fertility pattern. Each of your fertility signs will reflect your new hormonal fluctuations as your body prepares for the cessation of ovulatory cycles.

Waking Temps

One of the most obvious reflections of your diminishing fertility will be your waking temps. Rather than seeing the usual thermal shifts every cycle, you will start seeing new variations. Initially, you may notice that your cycles become shorter and more frequent, and thus your thermal shifts occur sooner than usual. In addition, you may notice that the number of postovulatory temps decreases, reflecting shorter luteal phases than you used to have.

And finally, you'll notice more and more anovulatory cycles, in which your temps remain low throughout, indicating that you didn't release an egg. All of these variations in your temperature pattern are absolutely normal as you approach menopause, and should serve only to remind you of the benefits of charting to help you understand what is happening in your body.

I myself had reached that magical perimenopausal age of 50 when I went in for my routine annual exam. When my doctor asked me whether I was still cycling normally, I responded that yes, I was, but that I had several really short cycles as well, averaging only 18 to 22 days. Of course, if I were trying to conceive, that would be problematic, but I wasn't. She still expressed concern, stating that I

should get an endometrial biopsy to determine what was causing all of that “dysfunctional bleeding.”

Were it not for my illuminating charts (this was my 322nd cycle, after all!), I would have subjected myself to a totally unnecessary procedure. But I was able to assure her that not only were my cycles normal, but I was still having absolutely obvious thermal shifts with normal luteal phases. That was all she needed to hear—that the bleeding was indeed from ovulation and not from a worrisome condition or disease.

Cervical Fluid

As the number of your ovarian follicles decreases, you will stop ovulating as often. So you will produce progressively less estrogen, which in turn will decrease the amount of fertile-quality cervical fluid you have. For example, if you used to have three days of eggwhite per cycle, you may now have only one day, if any. Yet without ovulation, progesterone won't be present to rapidly dry up what cervical fluid there is, so it may become harder to identify your Peak Day.

Your usual fertile pattern of cervical fluid may change to more days of either dry, sticky, or even a watery secretion, without any of the fertile characteristics, such as being stretchy, clear, or lubricative. Your vaginal sensation may also become continuously dry or sticky. Or you may experience sporadic wet patches of cervical fluid as your body still makes noble attempts to ovulate.

Cervical Position

Observing your cervix during confusing phases of anovulation can be especially helpful. You will probably notice that as menopause approaches, your cervix is more often firm, closed, and low, confirming longer phases of infertility and clarifying ambiguous cervical fluid or temperature patterns.

Secondary Fertility Signs

Along with the obvious changes you may notice in your three primary fertility signs, you will probably see changes in your secondary signs as well. You may even notice certain fertility signs for the first time, as discussed below.

Midcycle Spotting

If you're someone who never used to have midcycle spotting around ovulation, you might be surprised to start experiencing it now. Its appearance is due to the fact that ovulatory spotting tends to be more common in long cycles, and one of the hallmarks of premenopausal cycles is their increasingly longer lengths.

Mittelschmerz

If you are used to having midcycle pain around ovulation, you may notice that you don't experience it as often as you stop ovulating as frequently.

Breast Tenderness

One of the nice benefits of anovulatory cycles is that you don't usually experience the postovulatory breast tenderness characteristic of normal cycles. This is because no progesterone is released to cause the discomfort.

THE CONTRACEPTIVE RULES AS MENOPAUSE APPROACHES

Once you have determined that you are indeed experiencing menopausal signs, the way you will use Fertility Awareness can be fairly straightforward: You should follow all the standard rules of FAM for birth control discussed in [Chapter 11](#), except that you should not rely on the First 5 Days Rule.

What this means in practice is really quite simple. Chart your cycles as you always have, but you should no longer assume that the first 5 days of the cycle are infertile. The reason for this is that your premenopausal cycles are subject to hormonal fluctuations that may cause a dramatically early ovulation. Again, we are dealing with degrees of risk. Although there is little data to cite, it's likely that the first 3 days of a period are nearly as safe as the first 5 days were before you had that initial hot flash. But, to be most conservative, you should assume you're fertile until you can verify a dry day, which as you know, is essentially impossible to detect while you're bleeding.

“Hard” Cycles, “Easy” Cycles

As menopause draws closer, you may find that you go for months without any dry days. Instead, you might have a continuous and extended preovulatory pattern of sticky days, perhaps interspersed with patches of wet cervical fluid. The occurrence of unchanging cervical fluid day after day is called a Basic Infertile Pattern (BIP) and is very common in premenopausal women. In such a case, ***you will need to use the BIP rules discussed in [Appendix J](#)***. They allow women with a sticky BIP to count more days as infertile than would be possible under the standard FAM rules. However, the BIP rules are admittedly more difficult to follow, and as you will read there, they are somewhat riskier for premenopausal women.

Understandably, you might decide that using them is simply not worth the trouble. Yet before you decide anything definitively, I would encourage you to continue charting for several months. Aside from the fascinating record you'll have of your reproductive system going through the throes of

contraception. Personally, I feel that vasectomy for your partner is a better option than tubal ligation, because it's a cheaper and less invasive procedure with fewer possible complications. But whatever you choose, remember that you are considered potentially fertile for a full year after your last period.

✿ MAINTAINING YOUR SANITY THROUGH THE MENOPAUSAL YEARS

In the end, how easily you glide through menopause will be determined in large part by your expectations before you get there. While the various menopausal signs can be a nuisance, they certainly don't have to be traumatizing. Reasonable solutions are available, so keep a sense of humor, and know that you're hardly alone.

Charting your cycles will offer you a unique opportunity to observe your body in a wondrous period of transformation. As they veer from less than 3 weeks to 3 months or more, you'll always be on top of the hormonal turbulence within you. One day in your late 40s or early 50s, after having gone all summer long without menstruating, you may have the opportunity to impress a friend. You'll be able to tell her that you know that you still have at least one more period to go, starting the following week. "How can you be sure?" she'll ask. "I know," you'll say, "because it says so on my chart."

Enriching Your Self-Esteem Through Knowledge About Your Body

Once we are old enough to have had an education, the first step toward self-esteem for most of us is not to learn but to unlearn.

—ANONYMOUS

Hostile cervical mucus
Incompetent cervix
Inadequate pelvis
Senile gravida
Habitual aborter

*H*mm . . . let's see: defect, hostile, incompetent, inadequate, senile, aborter. Doesn't *that* paint a pretty picture? Regrettably, the list above merely describes women with fairly common conditions, such as nonfertile cervical fluid, a weak cervix, a narrow pelvis, a pregnancy after 35, and a tendency to miscarry.

If you'd like to be further entertained, you can review the entire list of dubious medical terminology still used in women's health today at www.tcoyf.com. You may think that this type of language doesn't affect self-esteem, because most women aren't even aware that these descriptions are recorded in their medical records. But many are matter-of-factly informed that they have the above conditions by well-meaning clinicians who seem

oblivious to how offensive this terminology can be. These phrases reflect an antiquated medical system that is often insensitive to women and out of touch with their needs.

Instead of identifying with the above vocabulary, picture an altogether different scenario. Imagine growing up being told that your body is a marvel of biological beauty that will orchestrate amazing changes every cycle. Rather than thinking that you keep producing infectious discharges, you'd be able to identify healthy cervical secretions as a reflection of the remarkable hormonal system working within. Imagine going to the doctor and feeling knowledgeable rather than vulnerable. And instead of succumbing to douche commercials that diminish self-confidence by implying that women are dirty, you could simply disregard them, knowing that just showering with soap and water will keep you clean and feminine.

What if teenagers acquired practical knowledge about their cycles and fertility even before the first day they menstruated? Not only would it increase their self-assurance, it would enable them to identify both medical problems and normal biological occurrences, sparing them so much of the fear and confusion that comes with adolescence. And although FAM should not be promoted as a method of birth control among adolescents, the reality is that the practical knowledge it affords could reduce unplanned pregnancies in an age group that, unfortunately, still believes among other things that you can't get pregnant the first time.

Imagine being able to utilize your body's own fertility signs to provide you with a completely natural, safe, and effective method of birth control that promotes shared responsibility and communication between you and your partner. Or envision what it would be like to know your own hormonal symphony so well that you could zero in on the day that you want to conceive.

And if by chance you or your partner really do have a fertility problem, picture a dialogue of truly informed participants. Imagine you, your partner, and your doctor using your own charts to find the least-invasive strategy, before deciding that IVF is your first and only solution. Yes, it may be, but at least you would understand why.

On a more mundane note, wouldn't it be nice to experience PMS in a whole new light, finally understanding why you develop symptoms on a cyclical basis? Knowing there are steps you can take to alleviate the various

pains and discomforts will always help, particularly if you take preemptive steps based on conveniently predictable patterns. In such a case, your fertility charts could serve as a biomedical data bank, perhaps helping you stave off that particularly unpleasant bloated feeling three days before your period.

And what if menopause was finally perceived for what it is—an inevitable, natural transition in a woman's life. If women were actually taught what to anticipate in the years leading up to their last period, they certainly wouldn't feel so confused and mystified by all the new changes. In reality, women in their late 40s are hormonally similar to 13-year-old kids. Their bodies may create the biological equivalent of a Hollywood mystery, but, like their adolescent daughters, these women can eliminate the confusion and take control as they enter the last phase of this long and interesting journey.

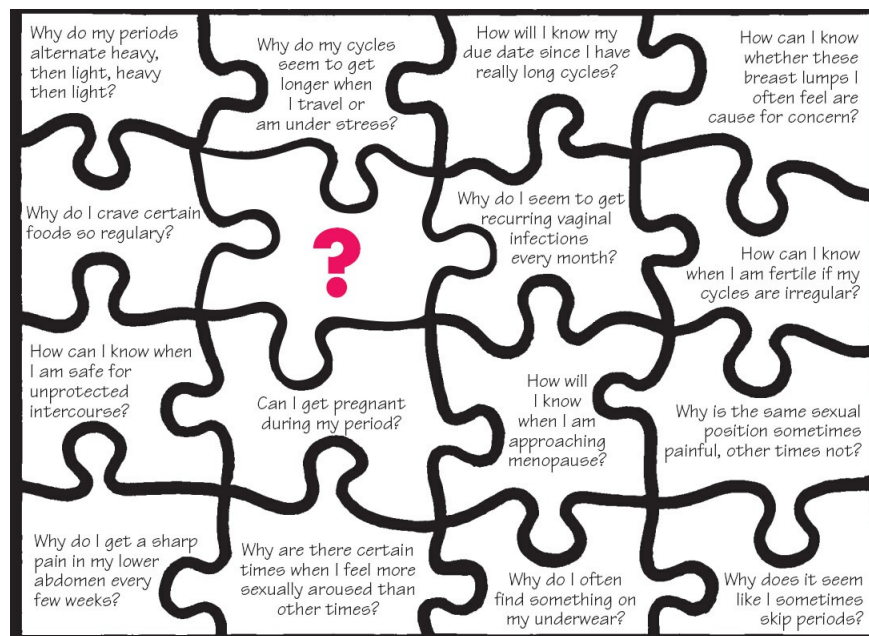
There is a proverb that is as truthful as it is applicable:

Knowledge is power.

Unfortunately, so much of what people usually want to know is locked away in inaccessible databases of governmental, corporate, and academic bureaucracies. But there is also a wealth of eminently practical information that in many ways serves to define your womanhood, and that knowledge is available to you whenever you want. Yes, it does take a couple of minutes a day to access, but it requires no particular job connections, or even a computer. Fertility Awareness is certainly not high-tech. But for all of you who are of reproductive age, the education it provides can reveal an entire world about which you may know so very little: Yourself.

Epilogue

A History of Progress: Women's Health and the Missing Piece of the Puzzle



Many anthropologists are aware of a universal tradition among the Bantu women of East Africa, passed down from grandmother to granddaughter, generation after generation. In order to teach their progeny about the relationship of cervical fluid to fertility, the elder woman takes a smooth stone to gently wipe the inner lips of her granddaughter's vagina. She then explains to the maturing adolescent that it is in the secretions found on that stone that the key to her future fertility will come and go, magically, cycle after cycle.

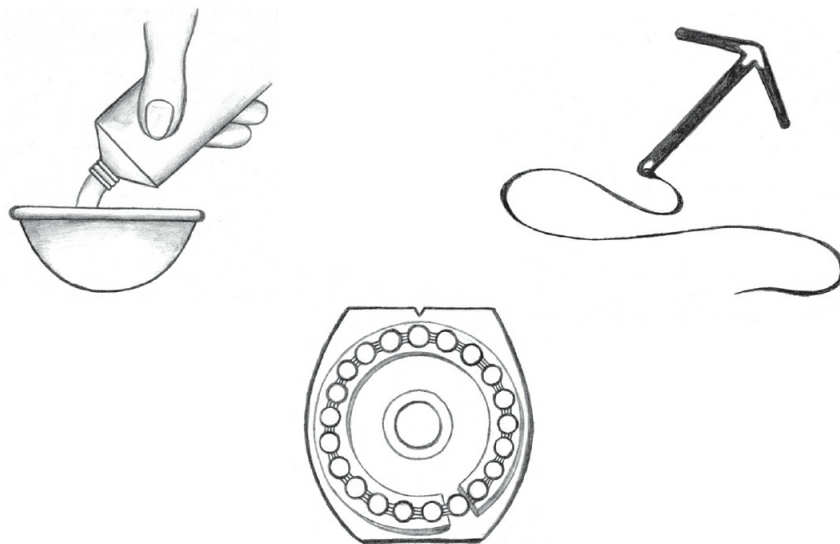
Since *Taking Charge of Your Fertility* was first published 20 years ago, I have had the opportunity to hear from thousands of readers about the impact Fertility Awareness has had on their lives. What has been most gratifying to me is learning of their almost unanimous view that every woman should know its basic scientific principles. Not just to maximize their odds of conception, or to avoid pregnancy, but, perhaps most important, to finally demystify the everyday riddles of their own bodies.

Quite simply, these women have confirmed my own long-held belief that Fertility Awareness education could well become one of the most important chapters in the amazing multigenerational history of the American women's health movement, a history that is worth briefly noting in order to put the information contained in this book into some basic historical context.

✿ THE SEARCH FOR VIABLE CONTRACEPTION AND THE RAMIFICATIONS OF THE PILL

Of all the health-related struggles confronting women, perhaps the longest lasting and most universal has involved the often contentious issue of birth control. Indeed, it's well known that various societies throughout history have acted to prohibit whatever contraceptive technologies were available to them, and of course the United States was no exception. In fact, it was only thanks to the courage of Margaret Sanger in the early 20th century that Americans first enjoyed the lawful and widespread availability of condoms and diaphragms.

Sanger herself was arrested and harassed, both for publishing newsletters that demanded such access and for opening America's first birth control clinic in Brooklyn, New York, in 1916. (The clinic was abruptly closed by police.) Yet her actions struck a chord with women throughout the country, and by the early 1920s, the American Birth Control League, a forerunner to Planned Parenthood, had 37,000 members. The power of this and other organizations overcame both legal obstacles and resistance from the male-dominated medical establishment.



Of course, the most dramatic developments in modern contraceptive

history came a couple of generations later, with the arrival of the pill. Ironically, it was the difficulties that women initially faced in exposing its dangerous side effects (many of which have since been resolved) that helped lead to the first truly organized movement devoted to women's health itself. It's no coincidence that less than a year after activists disrupted a 1969 U.S. Senate hearing on the pill, because not a single woman was called to testify as to her own negative experiences in taking it (!), the Boston Women's Health Book Collective published the first mimeographed booklets of what soon evolved into the landmark tome *Our Bodies, Ourselves*.

By the time access to legal abortion was finally guaranteed in 1973, grassroots activism devoted to a variety of women's health issues had taken hold, from the backlash against the overuse of radical mastectomies for breast cancer to the demand for more information about DES and its devastating effects on a generation of girls born to mothers who had used it. Yet given the well-publicized risks of both the pill and later the IUD, the movement as a whole remained most concerned with access to safe and effective contraceptive choices, and for many, this still remains one of the key women's health issues today.

✿ RETURNING CHILDBIRTH TO THE MOTHER'S CONTROL

The general tenor of the women's movement of the 1960s would soon have a powerful impact on other fundamental areas within women's health. In the decade or so following the release of the pill, a highly visible campaign began to spread in reaction to what was seen as the general overreliance on medical technology in the delivery room. Although most women had come to expect some form of modern anesthesia, many began to forcefully reject the routine use of labor-inducing drugs, surgical rupturing of membranes, forceps deliveries, episiotomies, and even the usual practice of whisking the baby off to the nursery as soon as it was delivered.

In 1972, Suzanne Arms's book *Immaculate Deception* made perhaps the most persuasive call for rehumanizing the entire process of childbirth, including standard postpartum practices. Her book was a landmark that sparked great debate among both ordinary women and the medical community, in large part for her claim that the American hospital was often not the best or most logical place for childbirth to occur, and for her assertion that midwives should take the primary role over doctors in those routine births where medical intervention was not necessary.

As a result of Arms and other pioneers, many American women today actively plan the type of birth they want, including such decisions as whether it should be at home or in a hospital, with a midwife or an OB/GYN, using Lamaze or Bradley childbirth preparation, and finally, whether it should be experienced naturally or with drugs. And though most women today don't necessarily choose to have a completely natural childbirth, the shift of decision-making power from the doctor to the mother appears to be one of the most significant ways in which women have taken control of a fundamental aspect of their reproductive lives.

✿ THE “OUTING” OF MENOPAUSE AND OTHER FEMALE TABOOS

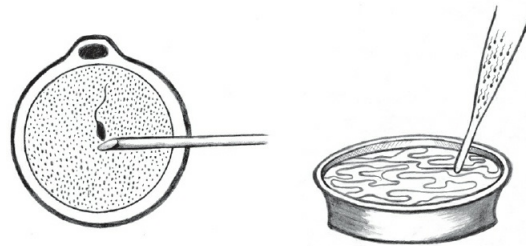
In contrast to childbirth, societal developments concerning menopause have been marked not so much by any definitive social movement or medical breakthrough, as by simply an increase in candid and informed discussion. The fact is that until the late 1960s, most women rarely if ever broached the topic of menopause with even their closest friends. But as in other areas, the standard practices of the medical establishment began to draw increasingly vocal criticism. Specifically, a few courageous activists began to object to the prevailing view of menopause as a disease that needed to be treated (either psychologically or hormonally), and soon many were attacking the routine use of hormone replacement therapy, which at that time seemed to have as many negative drawbacks as benefits.

Still, the real breakthrough came only in the early 1990s, with Gail Sheehy’s classic *The Silent Passage*. This work clearly struck a nerve with millions of women and swept away the notion of menopause as a taboo topic. Not only did many women begin to see it as a potentially positive gateway to a newly energized phase of life (as opposed to merely the symptom-filled conclusion to one’s fertile years), but more than ever before, women began to talk with everyone about their menopausal-related hopes, fears, and concerns, from their doctors and friends to strangers on talk radio. And thus today, hormone therapy and hot flashes are just two more typical subjects of media inquiry and women’s social gatherings.

Of course, menopause has only been the most notable example of a women’s health-related subject that has gone from taboo status to a mainstream topic of great general interest. Witness the formation of support groups for PMS and hysterectomy, the explosion of mass education and grassroots organizing for breast cancer research, or even widely popular books, which have explored everything from the history of menstruation to female anatomy. For those who remember the ignorance and isolation that prevailed just a generation ago, all of this is wonderful news.

✂ THE PROMISE AND TEMPTATION OF HIGH-TECH FERTILITY PROCEDURES

Perhaps the most compelling topic in reproductive health, and the one that has probably captured the most attention of both women and men, has been the continuing advances in reproductive technology. From the birth of Louise Brown in 1977 (the world's first "test tube baby"), to the popularization of IVF in the 1980s, to the most recent headlines on sperm micromanipulation, and even freezing eggs, the world has witnessed a staggering revolution in the potential options that are afforded those couples who are perceived as being infertile. Yet these high-tech advances are hardly reproductive panaceas. Their overall success rates remain fair but not great, and because of their high costs in money, time, and emotional energy, they are not an ideal choice for most couples.



Of course, one can assume that assisted reproductive technologies will continue to improve, and that in the future their physical and financial costs may diminish to the point that many people will come to view them as just another routine alternative on the road to a successful pregnancy. To the extent that these technologies present ever greater choices for those who truly need them, this can be seen only as a positive development.

Yet there is also a possibility that the progress to which I'm referring could have a very real downside—specifically, if future couples glibly turn to the latest technological advancements before seeking the knowledge with which so many of them could naturally become parents. And given the missed opportunities for self-edification that such knowledge would bring, this would be unfortunate, no matter how cheap and easy high-tech

pregnancies become.



**FERTILITY AWARENESS:
THE MISSING PIECE
OF THE PUZZLE**

As we have seen, women over the last few generations have taken ever-greater control of their lives, and in so doing have often become substantially more in tune with their own bodies. Nevertheless, the progress they have made has been sporadic and piecemeal, with each new movement or breakthrough applying only to a relatively small part of life's great menstrual mystery. Indeed, the advances made in both childbirth and menopause have dramatically improved their physical welfare, but it's worth noting that childbirth usually occurs during the primary reproductive years of 20 to 40, while menopause arrives only in the decade or so that follows.

Likewise, women now have a variety of fairly decent alternatives for avoiding pregnancy, and every year yields new technologies and hope for those struggling couples trying to conceive. But birth control methods and high-tech fertility treatments reflect specific goals of different women at different times, and even though they are the flip side of the same menstrual coin, the pursuit of the final objective teaches women virtually nothing about how or when conception occurs in any given cycle.



Printed with special permission from Rosy Aronson.

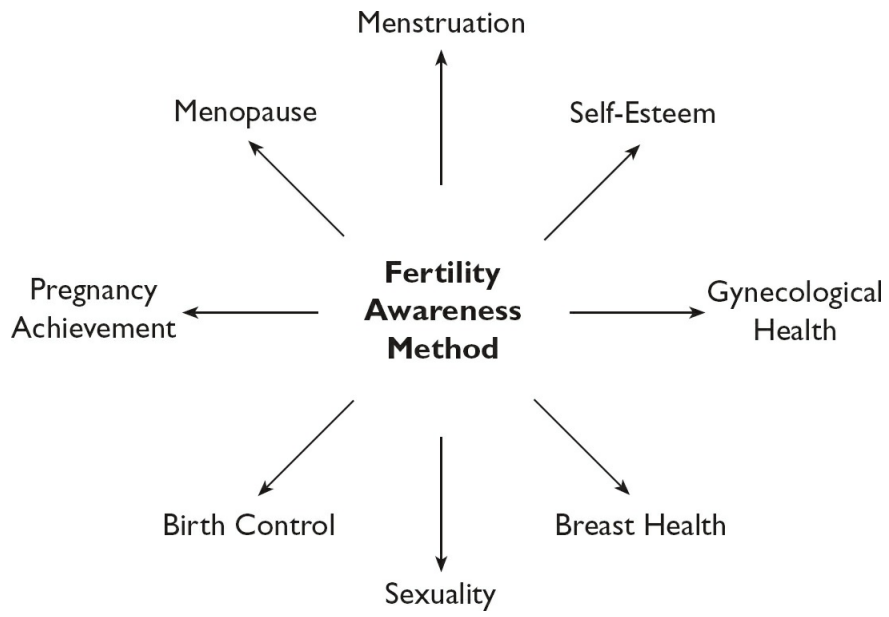
Given the exciting evolution of the various women's health movements discussed above, it's worth briefly mentioning the historical development of

the Fertility Awareness Method (FAM), which is a comprehensive body of knowledge that is applicable to all menstruating women, for the entire duration of their reproductive years. As noted earlier, *Our Bodies, Ourselves* was a major step forward, but even this amazing source paid scant attention to FAM's initial development and validation, even though it had begun to gain a sizable number of adherents in Europe as early as the 1960s, the majority of whom used it as a form of birth control.

In fact, the first comprehensive studies to show the scientific validity of using both cervical fluid and waking body temperature as a way of accurately detecting ovulation occurred in the 1950s. Yet because Fertility Awareness would remain widely confused with the notorious Rhythm Method, it did not, alas, become a widely known contraceptive choice during that inspiring time in the 1970s when so many American women began to take so much of their physical well-being into their own hands.

By the time I wrote the first edition of this book in the mid-1990s, more and more women were beginning to hear that FAM was natural and effective. Of course, it still hadn't achieved the grassroots impact that other women's health movements had, yet I was ever more confident that it was only a matter of time.*

What most of my readers now know is that the Fertility Awareness Method is not a contraceptive guessing game or just a system for maximizing the odds of conception. Nor is FAM the exclusive domain of strict Catholics or flower children who grew up decades ago. They are thrilled to discover that it also serves as a wonderful window into all facets of a woman's gynecological well-being, and that it is basic knowledge that every woman should possess, no matter what she ultimately chooses to do with it.



✿ COMING FULL CIRCLE

Although I wrote *Taking Charge* with a clear vision of educating all women of reproductive age, the success of the first edition was primarily due to the large majority of readers who were seeking to conceive. Initially, I was puzzled as to why this was, because before I wrote it, my own seminars were still much more popular with those seeking to avoid pregnancy. In retrospect, I realize now that the very title of this book often misleads people into thinking that it's strictly about getting pregnant.

Regardless, I find it fascinating that the continuing advances in high-tech reproductive technologies are perhaps most responsible for popularizing Fertility Awareness in general. This is because as increasingly more couples muster the financial and emotional resources to try high-tech reproductive options, they often discover that FAM should be the first step they take in their efforts to conceive, *before* they begin the invasive tests and procedures that drain so much of their money and energy. My vision is still to transform FAM into a body of knowledge that is a basic component of all sex education, but if it takes the determination of those struggling with infertility to propel it into broader society, then so be it.

I hope Fertility Awareness will eventually bring the women's health revolution full circle, and that its growing popularity may one day result in its being seen as important as the technological advances and grassroots movements that have already come before it. This is because, as so many women are now learning, FAM is a truly liberating tool for understanding and maintaining basic reproductive health, and can function as such from an adolescent girl's first period to her last one, nearly 40 years later. In fact, as the decades have passed, a growing critical mass of women have finally discovered that it is arguably the most empowering information that women can be taught about the miraculous workings of their own bodies.

I feel privileged to play a role in the dissemination of such important and edifying knowledge, in large part because I have come to realize that if FAM continues to grow in popularity in the years ahead, it may one day be seen as the logical culmination of what has, in fact, been a series of women's health

movements, from the first demands for access to contraceptives to the relatively recent and increasing interest in finding natural alternatives for menopausal symptoms.

And, yes, there is a certain irony in the fact that women considering high-tech procedures for getting pregnant would be the group that is most responsible for bringing Fertility Awareness into the mainstream, for as you've learned in this book, the practice of using FAM to chart your cycles generally involves little technology. Still, because of the age we live in, it's increasingly popular to use computerized charting programs and apps such as the one I helped develop to complement this book, available at www.tcoyf.com.



It's still too early to tell, but these digital charts may yet serve as another crucial catalyst in the growth of Fertility Awareness education, as it one day becomes commonplace for women to e-mail them to their doctors on the day before an office visit. And unlike today, virtually every physician would be darn sure that they're familiar with FAM's basic medical principles, in part because if they weren't, they would know less than your average teenage girl.

Color Insert

The Three Primary Fertility Signs

The chart and pictures below reflect the three primary fertility signs of one woman's cycle, which in this case was 30 days in length. These photos were taken on Days 12, 17, and 20.

As she approaches ovulation around Day 17, increasing levels of estrogen keep her temperatures down while causing her cervical fluid to become progressively wetter and her cervix to become soft, high, and open. But almost immediately after ovulation, the newly released progesterone causes her temps to rise, her cervical fluid to dry up, and her cervix to revert back to firm, low, and closed.

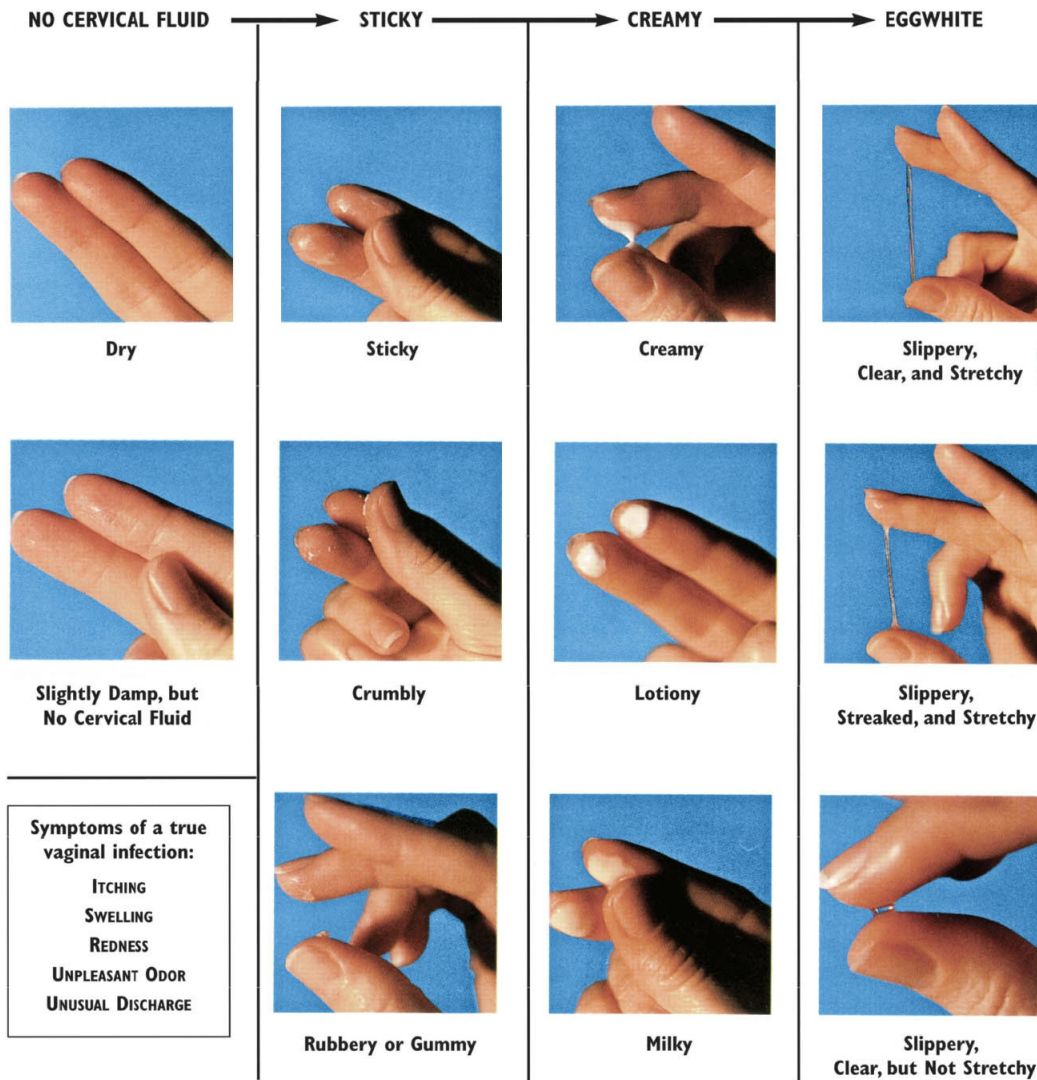
You can see that in the middle picture of her cervix, the cervical fluid was removed so as not to obscure the visibility of the opening. Also note that photos are unable to reflect the height of the cervix, but it does reveal an obvious difference in its angle after ovulation.

WAKING TEMPERATURE

Healthy Variations of Cervical Fluid

Most women tend to be dry for a few days after menstruation, but as they approach ovulation, their cervical fluid becomes increasingly wet and copious. The quality of cervical fluid is on a continuum from dryer and less fertile to wetter and more fertile as ovulation approaches.

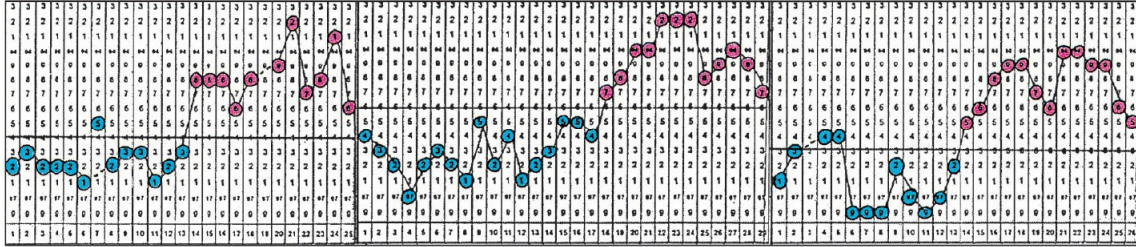
Each woman has her own unique pattern. The above photographs show just some examples of what women may experience. A woman's Peak Day of fertility is the last day she experiences either eggwhite-quality cervical fluid (stretchy, clear, or lubricative) or a lubricative vaginal sensation.



Photographs by Frankie Collins

Seeing the Forest Through the Trees

Note the obvious pattern of thermal shifts indicating ovulation in three of the author's charts, placed side-by-side. Even though there are a few temperatures that are out-of-line or even missing, you can clearly see a pattern of lows before ovulation (blue), and highs after ovulation (pink).



The Ferning of Fertile Cervical Fluid

When viewed under a microscope, the stretchy eggwhite secretions in the picture below on the left look like a beautiful ferning pattern conducive to sperm motility. The drier, sticky types of cervical fluid on the right don't have that magical appearance.



The Most Fertile-Quality Cervical Fluid

Fertile eggwhite-type cervical fluid exudes from this woman's open cervix right before ovulation.



Stretching the Concept of Perfect Timing

To see how the cervical fluid below contributed to the conception of this little guy, see his story [here](#).



Photographs of cervical fluid and baby by Bruce Bobman

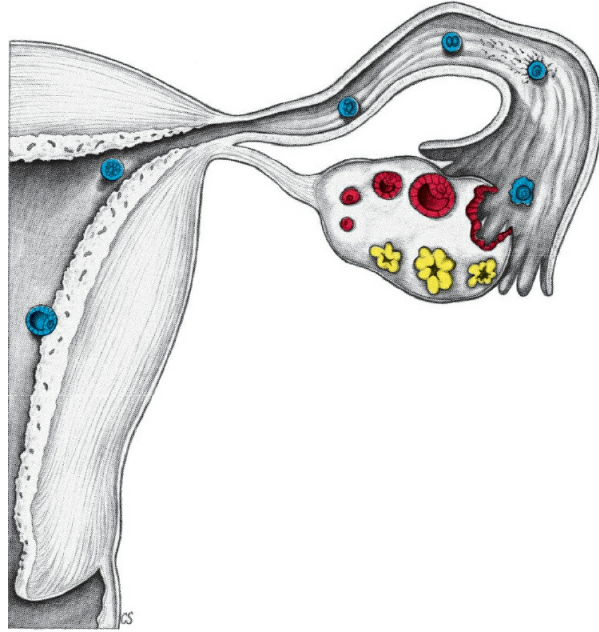
The Beauty of Reproductive Biology

The Life of an Ovum

In the illustration below, a tiny egg within the ovary slowly develops its own follicle (red). After completely maturing, it's released from the follicle left behind on the ovarian wall, in the most significant event of the menstrual cycle: ovulation. In most cases, the just-released egg (blue) will continue on its journey, being swept into the fallopian tube by its outer fimbriae.

The follicular material left behind in the ovary will soon form the corpus luteum (yellow), which omits progesterone. If fertilization does not occur, it will die within 12–16 days, causing progesterone levels to plummet, and menstruation to follow.

However, if intercourse occurs in the short fertile phase surrounding ovulation, the sperm may meet the newly released egg within the tube, where fertilization would take place. If this happens, the fertilized egg, now a zygote, continues the journey, becoming a blastocyst that implants in the lining of the uterus about a week later.



Ovulation photographs by Erlandsen/Magney: Color Atlas of Histology, 1992

The Delicate Fimbriae of the Fallopian Tubes

Contrary to what you would imagine, the opening of the fallopian tubes, called fimbriae, are remarkably ruffled, allowing them to sweep the miniscule egg into the narrow tubes.

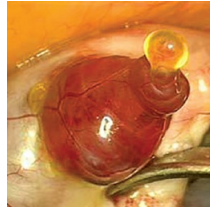


“Fallopian Tube” © Science Source® a division of Photo Researchers, Inc.

The Moment of Ovulation Magically Captured on Camera

Don't be squeamish! In one of the most amazing photos ever taken of such a

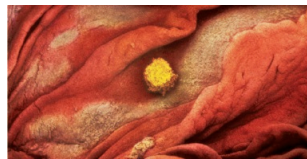
biological event, a doctor just happened to capture the moment of ovulation while operating on one of his patients. As you can see, the egg seeps out from its surrounding follicle on the surface of the ovary.



“Ovulation” printed with permission from J. Donnez

The Journey Continues

No, that’s not an egg resting on vaginal lips. It’s the ovum as it is swept through the fallopian tube, waiting to either be fertilized by sperm or reabsorbed by the body if conception does not occur.

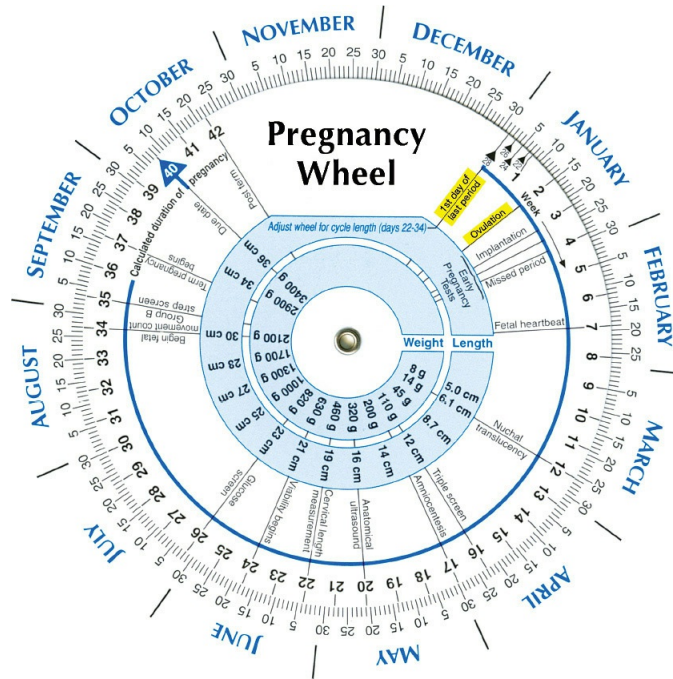


Photograph by Lennart Nilsson, A Child Is Born, Dell Publishing Company

A Typical Pregnancy Wheel

This is one of scores of calculating devices that you will find in virtually all fertility clinics. They are considered indispensable in determining a woman’s due date. However, they are often inaccurate, since they assume that women ovulate on Day 14, regardless of when they really do.

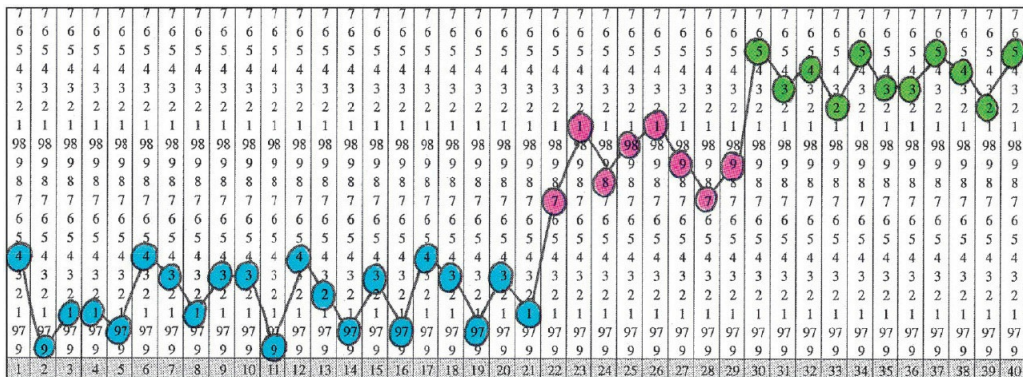
This particular wheel is set for a woman whose 1st day of her last period was January 1st, and thus ovulation was assumed to have occurred on January 14th. In reality, she could have easily ovulated several days earlier or weeks later, as is seen in the charts [here](#).



“Pregnancy Wheel” printed with special permission from FairHaven Health, LLC

A Triphasic Pregnancy Chart

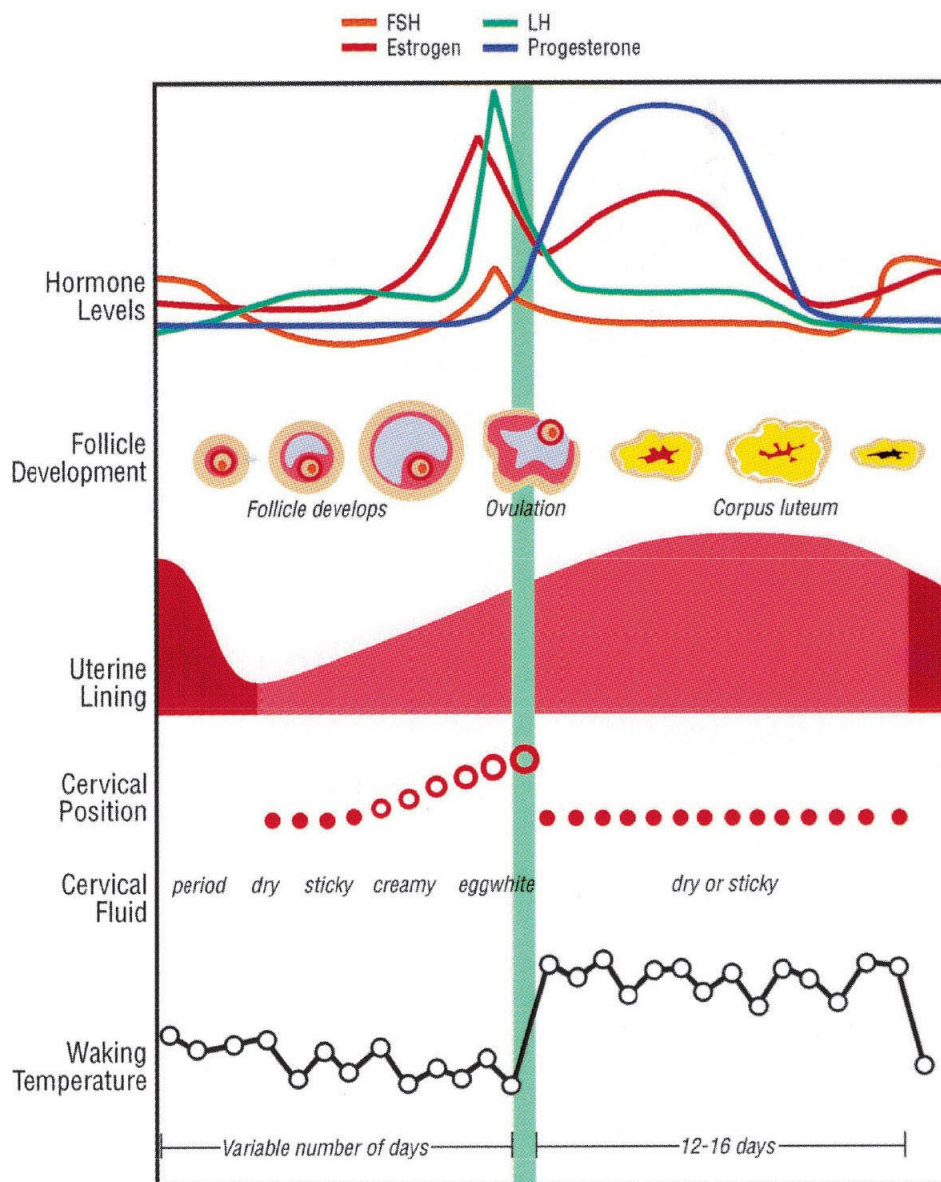
When a woman becomes pregnant, her temperature pattern may evolve into three levels, as can be seen by the three colors below. The second level is the result of the progesterone released after ovulation, while the third level is thought to be the result of the pregnancy hormone HCG, which circulates after implantation. Note that this woman ovulated on Day 21, not Day 14, as seen by the fact that her thermal shift didn't occur until Day 22.



Hormone graph by Kate Sweeney

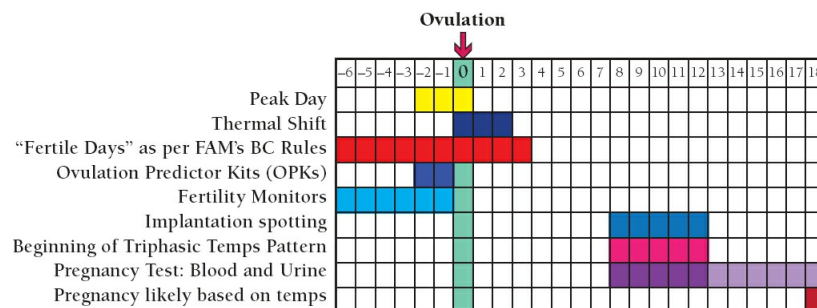
Ovulation in Context . . .

Note that the length of the phase before ovulation can vary widely, as seen at the bottom of the graphic. But the phase after ovulation is almost always 12–16 days. Within *individual* women, the postovulatory phase is remarkably consistent, usually not varying more than a day or so.



. . . And How Fertility Awareness Helps You Track It

The only way to determine the precise day of ovulation is through serial ultrasound, in which a woman’s ovaries are followed for several consecutive days. Realistically, of course, that’s not practical nor affordable for most. But given the various ways to corroborate observations of your body and cycles, it’s also generally not necessary. The graphic below simply highlights the average days, relative to ovulation, in which you might expect to see or use any of them.



Peak Day (Most Fertile Day)

The chances of conception are limited to about 6 days per cycle, with the most fertile day occurring on the Peak Day, the last day of clear or stretchy lubricative cervical fluid or vaginal sensation.

Thermal Shift

The waking temperature shift most often occurs within a couple days of ovulation, and usually confirms that an egg has been released.

“Fertile Days” with Buffer for Natural Birth Control

What makes the Fertility Awareness Method effective is that the rules add a buffer of a few days on both sides of your fertile phase.

Ovulation Predictor Kits (OPKs)

These urine tests identify when LH peaks, which in turn should trigger an

egg to be released within 24-36 hours.

Fertility Monitors

These type of tests measure not only your LH, but the estrogen rise that occurs prior to your LH peak, so they are able to reflect increasing fertility up to four day earlier than OPKs.

Implantation Spotting

When the fertilized egg implants in the uterine lining, it may cause a slight amount of bleeding.

Beginning of Triphasic Temps Pattern

When the fertilized egg implants in the uterine lining, it may cause a third more subtle rise in temperatures.

Pregnancy Tests

All pregnancy tests measure hCG (the hormone released after the fertilized egg implants in uterus). There are two types of pregnancy tests.

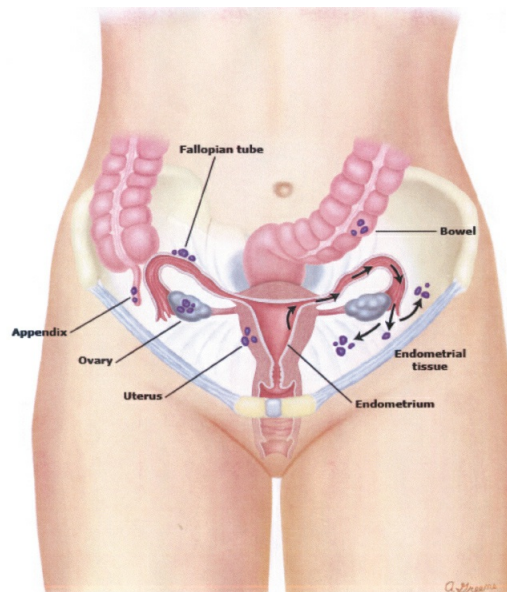
Quantitative blood tests are more sensitive and reflect exactly how much hCG you are producing, which will usually double every 48–72 hours. Qualitative urine tests, on the other hand, answer only one question: Are you pregnant?

Pregnancy Likely Based on Thermal Shift

If you have 18 conspicuous normal temps above the coverline, it is usually an indication that you probably conceived.

Endometriosis

This is a mysterious condition in which the cells that typically line the uterus implant instead in other locations within the pelvis. Women with only a mild case may experience debilitating symptoms, while others with it throughout their pelvic cavity may be totally unaware that they even have it. This illustration shows you some of the various locations where endometriosis can be found in the pelvis.



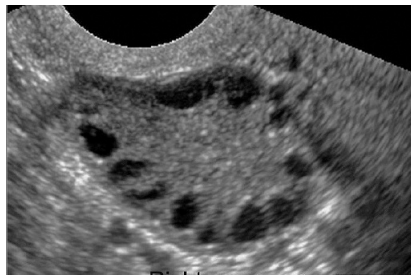
“Endometriosis (Beyond the Basics)” reproduced with permission from UpToDate. Copyright © 2015

Identifying Endometriosis Through Charting

Three of the most common symptoms of this condition are heavy bleeding, intense menstrual cramps, and deep pain during intercourse. By keeping track of these and other symptoms, you can better help your clinician determine what testing to do in order to make a diagnosis.

Polycystic Ovarian Syndrome (PCOS)

This is a serious metabolic condition caused in large part by hormonal imbalances, including excessive insulin. It is surprisingly common, and is characterized by irregular or anovulatory cycles, as well as more serious medical conditions. One of the classic diagnostic signs is the “String of Pearls” seen below, which are cysts that encircle the ovary and can be seen during ultrasound.



Reprinted with permission from William Herring, MD, FACR. Learning Radiology

Identifying PCOS Through Charting

Note how this woman has cycles that range from about 38–143 days, as recorded on the top of the chart. This particular cycle was 39 days, and she had numerous patches of wet cervical fluid before she finally ovulated about Day 28. You can see that she also had ovulatory spotting on that day, which is a more common phenomenon in women with long cycles.

Fibroids

By the time a woman is 40, there's a good chance that she will have developed at least one fibroid somewhere on her uterus. As seen below, they are benign growths that vary from the size of a pebble to that of a melon. There may be one large one or a cluster of smaller ones. Some form stalks that connect them to various parts of the uterus, some grow on the inside or outside, and still others grow deep within the muscle itself.

While most women will never even be aware that they have them, others may experience long and heavy periods, urinary or bowel issues, pelvic pain, and an enlarged abdomen, among other symptoms.

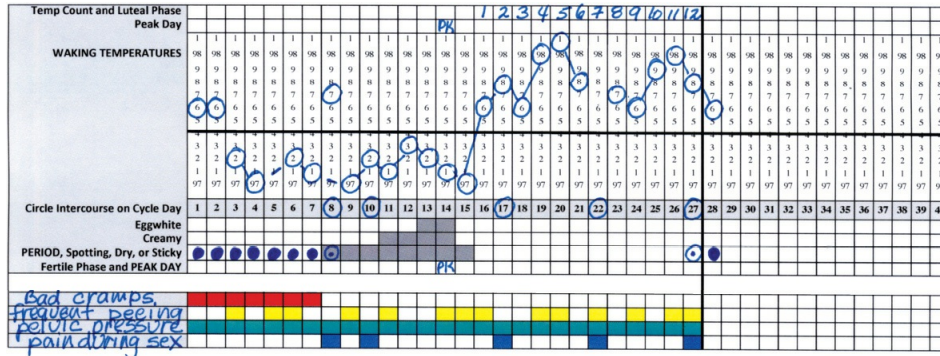
Fibroids used to be one of the most common reasons for hysterectomies, but today, there are many more options available for those women who experience serious symptoms, depending on whether or not they would still like to have children.



“Where Fibroids Grow” © The StayWell Company

Identifying potential fibroid symptoms through charting

Some of the symptoms that women may experience with fibroids are debilitating cramps during their periods, frequent urination from the fibroid pressing against their bladders, pelvic pressure in general, and pain during sex. Any one of these symptoms alone would not necessarily make you think you had fibroids, but together, they may help your doctor with a diagnosis.



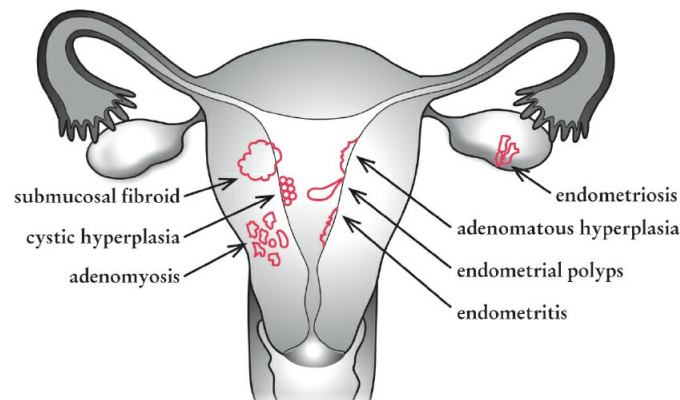
Identifying Sources of Unusual Bleeding

It's very possible that at some point in your life, you may experience unusual vaginal bleeding. This is generally considered any bleeding other than menstruation, which occurs about 12–16 days after ovulation. There are basically two different types: bleeding that results from organic causes, as seen in the illustration below, and dysfunctional uterine bleeding (DUB), which is caused by a hormonal imbalance.

Some sources of organic bleeding include various fibroids and polyps, which because of their physical nature are often more easily diagnosed. However, bleeding caused by endometriosis can often be very difficult to diagnose due to the microscopic cells that it deposits outside of the uterus.

Dysfunctional uterine bleeding is, by definition, caused by hormonal disturbances, and is therefore more likely to cause menstrual irregularity such as exceedingly short or long cycles, in addition to anovulation. Some examples of conditions that are caused by DUB include PCOS and thyroid issues.

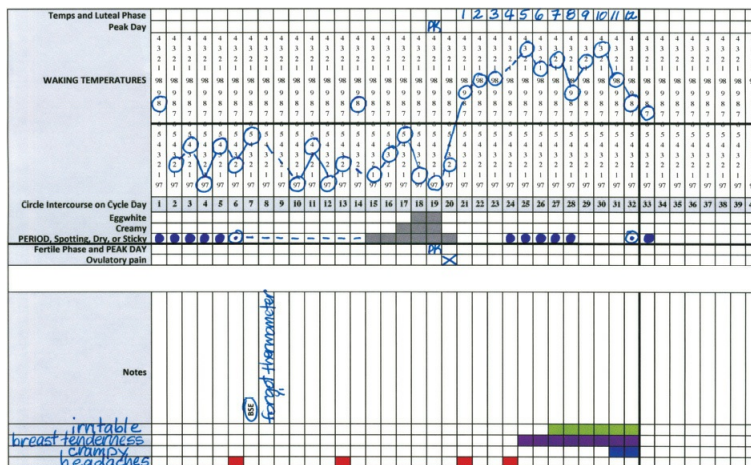
In any case, any menstrual bleeding that is severe or causes debilitating discomfort is not normal and should be diagnosed by a clinician.



Color-Coding Rows for Noting Conditions Such as Unusual Bleeding and Secondary Fertility Signs

As you can see below, you can record any unusual bleeding as well as various secondary fertility signs such as ovulatory pain. Signs for PMS, including irritability or feeling bloated, can be recorded using colors to make your chart more graphic.

In addition, you may want to record when you exercise, as well as when you perform a breast self-exam, which should always be done on Day 7 of your cycle. Simply circle the BSE after doing it.

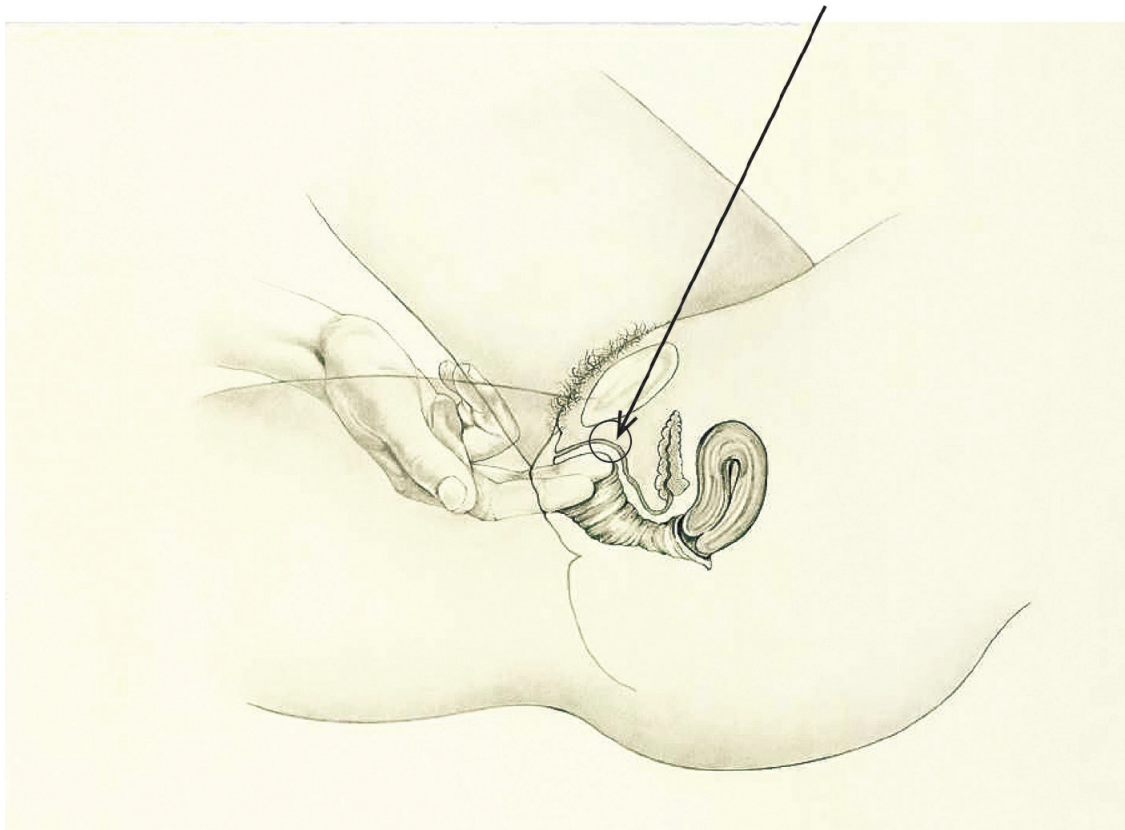


Finding the Elusive G-Spot

One of the most hotly debated subjects in the field of human sexuality is the question of whether or not there is such a thing as a G-spot. Paradoxically, what *isn't* really disputed is where it resides. Assuming it does exist, it is located about an inch or two inside the vagina on the upper wall close to the pubic bone.

Perhaps part of the mystery lies in the extent to which some women find that area pleasurable. Some feel absolutely nothing, while others, when rubbed there, are able to actually ejaculate in much the same way that men do.

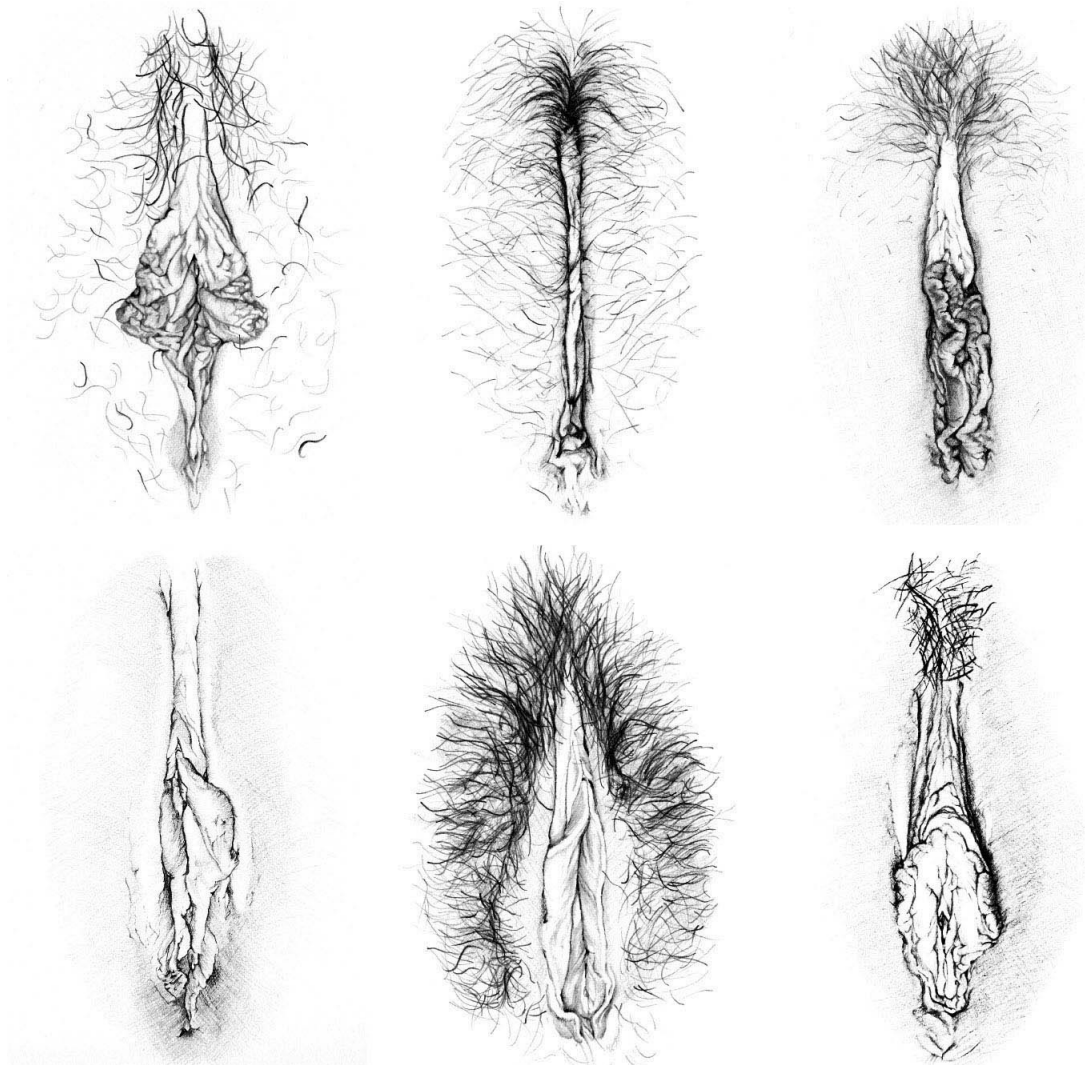
The illustration below shows two fingers stroking the G-spot in a “come hither” motion, which is typically harder to achieve during regular intercourse.



© 2015 *Sheila Metcalf Tobin.*

The Spice of Life: Variations in Female Anatomy

As you can see below, there is an endless variety of shapes, sizes, and fullness of vaginal lips. There are also different hair patterns, with many women choosing to fully or partially remove their hair. Regardless, these illustrations should dispel any concerns women may have about whether or not they are normal! All vaginal lips are unique.

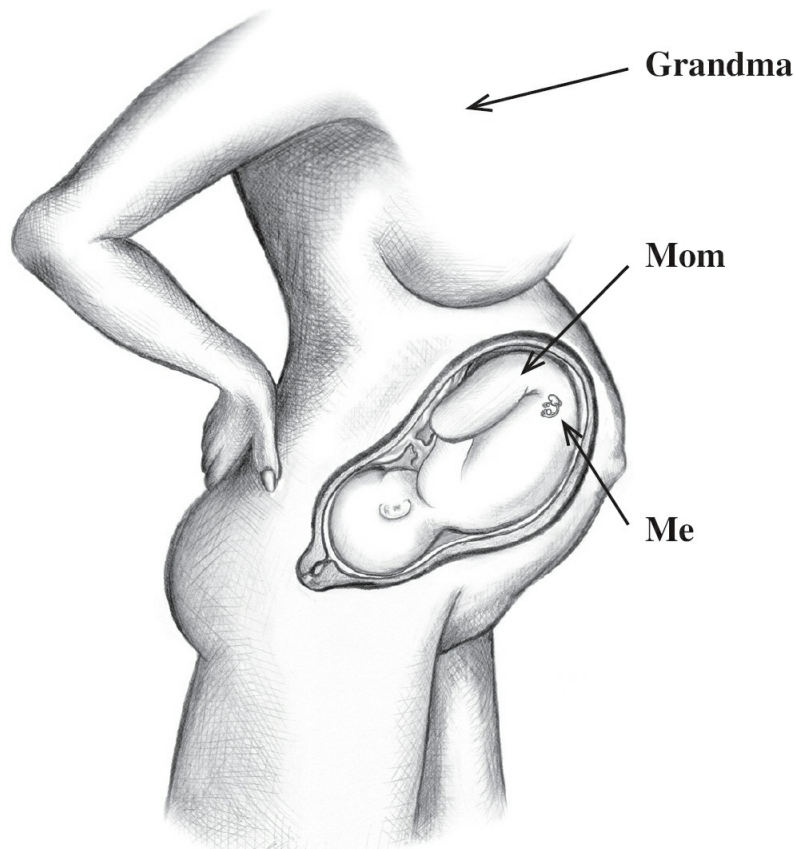


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“Where do I come from?”

A New Perspective on a Timeless Question

Every one of us started life in our maternal grandmother’s womb before our own mother was even born! How is that possible? Because every female fetus, including your mom, produced all the eggs she will ever have while still inside *her* mom. Of course, one of those eggs ultimately developed into you!



*A*PPENDIXES

Troubleshooting Your Cycle

After you start to chart, you may come across situations in which you need more clarification or guidance. What follows is a list of what I believe to be the most likely problem areas, based on my decades of practice. They are categorized both by symptom or fertility sign, and by when it occurs in the cycle.

I hope these pages serve as a valuable resource that addresses any additional concerns or questions you may have.* In addition, I encourage you to either take a class or consult with a certified Fertility Awareness counselor, both of which can be found through the websites listed [here](#).

✂ CATEGORIZED BY SYMPTOM OR FERTILITY SIGN

Bleeding

- Spotting before menstruation (at the end of the luteal phase)
- Very light or heavy periods
- Dark brown or blackish spotting at tail end of period
- Unusual bleeding
- Midcycle spotting
- Spotting anytime from week after ovulation to expected period
- Spotting after intercourse

Cervical Fluid

- Continual sticky cervical fluid day after day (Basic Infertile Pattern)
- Continual wet-quality cervical fluid day after day
- Absence of any eggwhite-quality cervical fluid or only watery-quality
- Patches of wet cervical fluid interspersed over long cycles
- Wet cervical fluid well after ovulation
- Wet sensation or eggwhite before menstruation
- Infection masking cervical fluid
- Wet cervical fluid found at the cervix but not at the vaginal opening

Waking Temperatures

- High temperatures during period
- Higher- or lower-than-average waking temperatures throughout cycle
- Ambiguous thermal shifts
- Temperature dip before the rise
- Temperature below coverline well after ovulation
- Drop in temperature day before period begins
- Fewer than 10 days of high temperatures above the coverline
- 18 or more high temperatures after ovulation

Two levels of high temperatures after ovulation (triphasic pattern)
Dropping temperatures after either 18 high temperatures or a positive pregnancy test

Temps That Cause Tricky Coverlines

Because women occasionally have thermal shifts that make it difficult to draw their coverlines, [Appendix H](#) addresses the following:

No thermal shift

Outlying temperatures

Erratic temperatures

Weak thermal shift whose 3rd temp does not reach 3/10ths above coverline

Temperatures that rise one-tenth degree at a time (slow-rise pattern)

Temperatures that rise in spurts (stair-step pattern)

Temperature that drops on Day 2 of the thermal shift (fall-back pattern)

Fever

Cervix

Cervix that can't be found

Cervix that never fully closes

Bumps on the surface of the cervix

Pain or stinging during intercourse

✂ CATEGORIZED BY WHEN IT OCCURS IN THE CYCLE

During Menstruation

Very light or heavy periods
Dark brown or blackish spotting at tail end of period
High temperatures during period

Midcycle

Midcycle spotting
No thermal shift
Ambiguous thermal shifts
Temperature dip before the rise
Temperatures that rise one-tenth degree at a time (slow-rise pattern)
Temperatures that rise in spurts (stair-step pattern)
Temperatures that drop on Day 2 of the thermal shift (fall-back pattern)
Absence of any eggwhite-quality cervical fluid or only watery-quality
Cervix that can't be found

After Ovulation (Luteal Phase)

Spotting before menstruation (end of the luteal phase)
Spotting anytime from week after ovulation to expected period
Temperature below coverline well after ovulation
Fewer than 10 days of high temperatures above the coverline
18 or more high temperatures after ovulation
Two levels of high temperatures after ovulation (triphasic pattern)
Wet cervical fluid well after ovulation

Just Before Next Menstruation

Spotting before menstruation (end of the luteal phase)
Spotting anytime from week after ovulation to expected period
Drop in temperature day before period begins
Wet sensation or eggwhite before menstruation

Anytime in Cycle

Bleeding

Unusual bleeding
Spotting anytime from week after ovulation to expected period
Spotting after intercourse

Waking Temperatures

Erratic temperatures
Outlying temperatures
Higher- or lower-than-average waking temperatures throughout cycle
Fever
When taking accurate temperatures is not always possible

Cervical Fluid

Continual sticky cervical fluid day after day (Basic Infertile Pattern)
Continual wet-quality cervical fluid day after day
Absence of any slippery eggwhite-quality cervical fluid
Patches of wet cervical fluid interspersed over long cycles
Infection masking cervical fluid
Wet cervical fluid found at the cervix but not at the vaginal opening

Cervix

Cervix that never fully closes
Bumps on the surface of the cervix

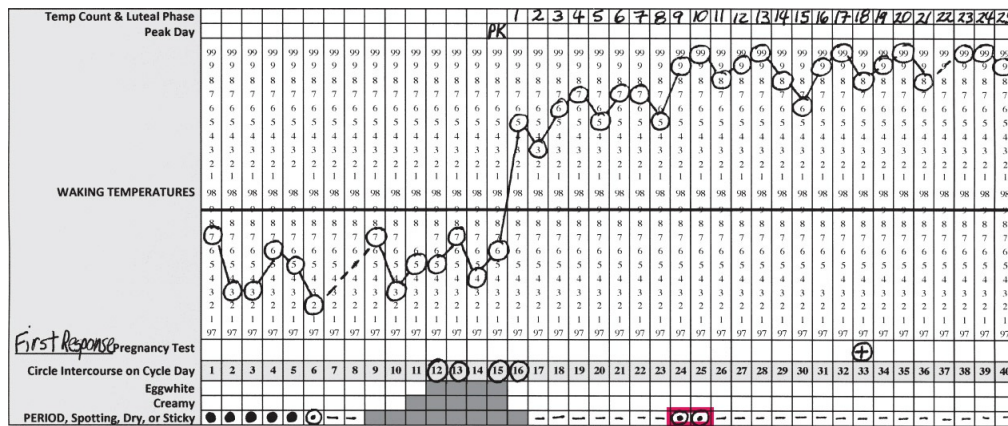
Intercourse

Pain or stinging during intercourse
Spotting after intercourse

SPOTTING ANYTIME FROM WEEK AFTER OVULATION TO EXPECTED PERIOD (IMPLANTATION SPOTTING)

If you experience spotting anytime from about a week after your thermal shift to the expected date of your period, it may be a sign of pregnancy. When the fertilized egg burrows into the uterine lining, it can cause implantation spotting. If you have reason to think you might be pregnant, pay special attention to your temperatures to see whether they remain above the coverline for at least 18 days, or even continue to rise into a third level right around the spotting, called a triphasic pattern. This is discussed [here](#).

If you prefer to take a pregnancy test, be aware that even the most sensitive ones probably won't be valid until you've had at least 10 post-ovulatory high temperatures. And store-bought tests generally require a few more days than blood tests because they are not as sensitive to the minute amounts of HCG that the embryo initially produces.



Implantation spotting

CONTINUAL WET-QUALITY CERVICAL FLUID DAY AFTER DAY

If you notice continuous wet or eggwhite-quality cervical fluid that extends for possibly weeks at a time, it could be an indication of excessively high levels of estrogen due to, among other conditions, PCOS or thyroid dysfunction.

Another fairly common condition that may cause a prolonged phase of wet cervical fluid, often with a delayed Peak Day, is an ovarian cyst. They are follicles in the ovary that stop developing before ovulation, forming fluid-filled cysts on the ovarian wall that usually last for a few weeks before disappearing on their own. Although they often have no symptoms, they can cause a chronic dull ache (usually on just one side), painful periods, or even pain during intercourse. Fortunately, physicians can usually diagnose them through a pelvic exam or ultrasound, and in most cases, they can be easily treated through a progesterone injection that disrupts the estrogen dominance, dissipating the pain and allowing bleeding 5 to 10 days later.

Prolonged wet cervical fluid could also be caused by stress. But the classic stress-induced pattern usually consists of *patches* of wet cervical fluid as your body keeps attempting to ovulate. Of course, a thermal shift will confirm when you ultimately do ovulate. If you are breastfeeding, your body could be making numerous attempts to start ovulating again, thus extending your normal fertile pattern for longer than usual.

Regardless what the cause is, if you are using FAM for birth control, see [Appendix J](#) on how to chart with these patches of cervical fluid.

Finally, you could have a vaginal infection. If you have any of the following symptoms in addition to continual wetness, you should see a health practitioner for a proper diagnosis:

- abnormal discharge
- unpleasant odor
- itching, stinging, swelling, and redness
- blisters, warts, or chancre sores

Circle Intercourse	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40											
Eggwhite Creamy																																																			
PERIOD, Spotting, Dry, or Sticky																																																			
Fertile Phase and PEAK DAY																																																			
VAGINAL SENSATION																																																			
CERVICAL FLUID DESCRIPTION																																																			

Excessively wet cervical fluid

Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40						
Eggwhite																																														
Creamy																																														
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	●	—	—																																							
Fertile Phase and PEAK DAY																																														
VAGINAL SENSATION							dry	"	sticky	"	wet	wet	wet	wet																																
CERVICAL FLUID DESCRIPTION									white pasty 1/4"	more really sticky	white lotion 1/2"	a lot of lotion, 1/2"	even a lot more	gobs of white creamy																																

No slippery eggwhite-quality cervical fluid observed

PATCHES OF WET CERVICAL FLUID INTERSPERSED OVER LONG CYCLES

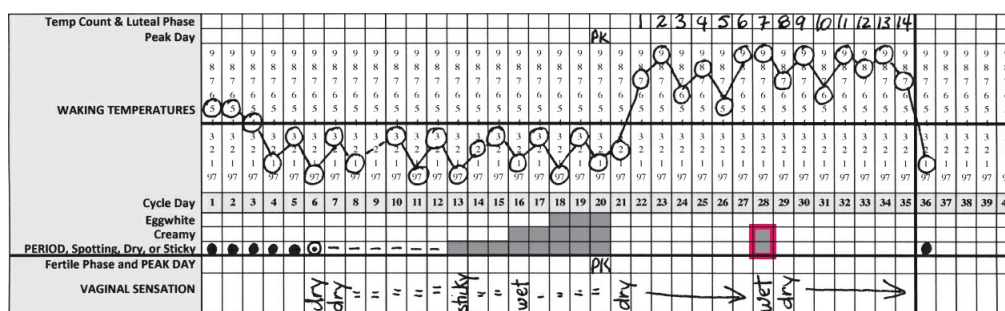
Whether you are trying to avoid pregnancy or to get pregnant, if you have highly irregular or long cycles interspersed with patches of slippery or stretchy cervical fluid, you might consider being checked for medical conditions such as PCOS or thyroid issues. However, such a pattern could be a result of nothing more than intense stress, as seen on Samantha's chart below.

Regardless, during the various phases in your life in which ovulation occurs less frequently, your body may go through episodes of trying to ovulate before it actually does. Eventually, after weeks or months of experiencing "false starts" in the form of patches of cervical fluid, you should be able to verify that ovulation finally occurred by the arrival of a thermal shift.

For women using FAM for birth control, this transitional pattern can be frustrating in that those patches need to be treated as fertile, and the symptothermal rules require you to abstain or use barriers during all those patches, adding a buffer zone after each one. If this is your pattern, you can apply the [Patch Rule](#).

WET CERVICAL FLUID WELL AFTER OVULATION

After ovulation, there is a second smaller surge of estrogen well into the luteal phase, which occasionally causes a day or two of wet cervical fluid. This often coincides with a temporary drop in temperatures. It is not an indication of returning fertility. So those avoiding pregnancy need not be concerned, assuming the Temperature Shift and Peak Day rules have clearly shown that ovulation has already taken place. But if you're not sure, don't take risks.

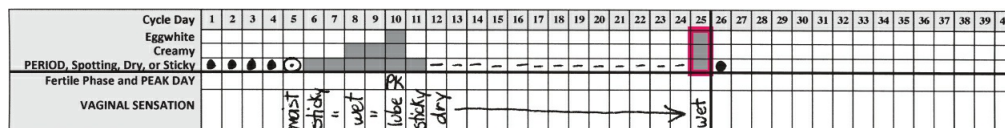


Wet cervical fluid mid-luteal phase

WET SENSATION OR EGGWHITE BEFORE MENSTRUATION

Having a very wet, watery sensation, or even a slippery eggwhite-quality substance, about a day or two before your period is absolutely normal. It's merely an indication that the corpus luteum has started to disintegrate, as it does before menstruation.

The first part that typically flows out when progesterone drops is the water that composed some of the endometrial lining. This watery substance should not be confused with fertile-quality cervical fluid. It has no bearing on your fertility. By definition, if it comes out just before your period and after you have established that you are in your infertile phase, then you are indeed not fertile that day.



Lubricative secretion or feeling a day or so before period

INFECTION MASKING CERVICAL FLUID

Vaginal infections produce many aggravations, including their ability to mask cervical fluid. What typically differentiates most infections from healthy cervical fluid is that infections usually have at least one of the following unpleasant symptoms:

1. True discharge, which is perhaps gray, green, foamy, or even like cottage cheese
2. Itching or irritation such as stinging
3. An offensive or unusual odor
4. Discoloration of the vagina, such as redness
5. Potential swelling of the vagina and vaginal opening

If you suspect that you have an infection, you should record a question mark in the Cervical Fluid Description row. It is imperative that you abstain from intercourse during the time you get treated in order to allow your body a chance to heal, and to prevent passing it back and forth between you and your partner. If nothing else, it can be extremely painful to have sex when you have an infection!

Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40							
Eggwhite																																															
Creamy																																															
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Fertile Phase and PEAK DAY																																															
VAGINAL SENSATION																																															
CERVICAL FLUID DESCRIPTION																																															

Vaginal infection

WET CERVICAL FLUID FOUND AT THE CERVIX BUT NOT AT THE VAGINAL OPENING

Women who check their cervical fluid at the cervix may notice that it sometimes seems wetter or more abundant than what they simultaneously observe at the vaginal opening. This is logical, since it can take a few hours for the cervical fluid to trickle down.

Remember to keep in mind that if you check internally, you will always have at least a slight moisture or film on your finger that should not be confused with cervical fluid. Simply wave your finger in the air for a few seconds. If the dampness dissipates, then you know it was probably only the moisture from your vagina itself.

If you find a slight, white filmy substance on your finger but your vaginal sensation is dry, you may then consider that day a dry day. This is because women will usually have vaginal cell slough internally even when it appears as if they are dry externally. This would still be considered low fertility. See [Appendix G](#) for more about internal checking.

Birth Control Method Used																																												
Circle Intercourse on Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
Eggwhite Creamy																																												
PERIOD, Spotting, Dry, or Sticky																																												
Fertile Phase and PEAK DAY																																												
VAGINAL SENSATION																																												
CERVICAL FLUID DESCRIPTION							dry	white film at cervix, but dries	"	dries as soon as wave finger	sticky	white sticky paste	really smooth wet lotion	wet	wet from am → streaked, 1" pm	streaked 2" am → 3" clear	1"	2"	3"																									

Discrepancy in cervical fluid. Note that cervical fluid that is wetter at the cervix than externally, as well as any film-like substance, can be recorded in the Cervical Fluid Description row. But the shading you record in the Cervical Fluid row should reflect what you observe at the external vaginal opening. You may prefer to use the master chart at the back of the book that is labeled in the bottom right-hand corner “Birth Control (Internal and External).”

HIGHER- OR LOWER-THAN-AVERAGE WAKING TEMPERATURES

One of the most obvious symptoms of a possible thyroid issue is a pattern of very high or low waking temperatures. (Most preovulatory temperatures range between 97.0 and 97.7 degrees and postovulatory range between 97.8 and up.) Some clinicians believe that any consistent pattern of preovulatory temps below 97.3 should be tested. If you find that you have any of the combination of symptoms below, at a minimum, you should have your thyroid checked.*

Be aware that getting a correct diagnosis for thyroid issues can be elusive, as seen [here](#). Tests often come back “normal” when in reality, your thyroid is still not functioning optimally. That is why it is imperative that you see a doctor who specializes in thyroid issues.

Hyperthyroidism, or excessively high thyroid activity:

- high waking temperatures (preovulatory temps 98.4 and above)
- short cycles
- scant menses
- short luteal phases
- possible milk in breasts without nursing
- infertility

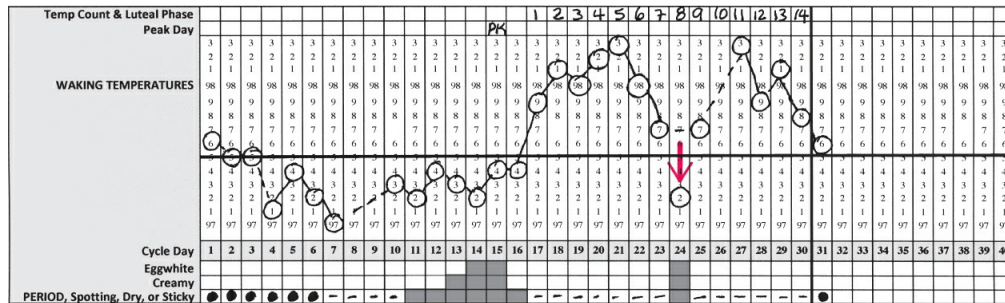
Hypothyroidism, or low thyroid function:

- low waking temperatures (preovulatory temps)
- anovulatory cycles (with no thermal shift)
- long cycles
- heavy or long menses
- prolonged phases of less-fertile quality cervical fluid
- short luteal phases
- unexplained infertility or miscarriage

The charts below show how each of these conditions might look.

TEMPERATURE BELOW COVERLINE WELL AFTER OVULATION

After ovulation (during the luteal phase), there is a second smaller surge of estrogen, which may cause a temporary drop in temperature and often coincides with a day or two of wet cervical fluid. There's no need to be confused, though, because it is not an indication of returning fertility. The egg is already dead and gone by then.



Temperature drop mid-luteal phase

FEWER THAN 10 DAYS OF HIGH TEMPERATURES ABOVE THE COVERLINE

If you have consistently fewer than 10 days of postovulatory high temperatures above the coverline, it may indicate one of two things:

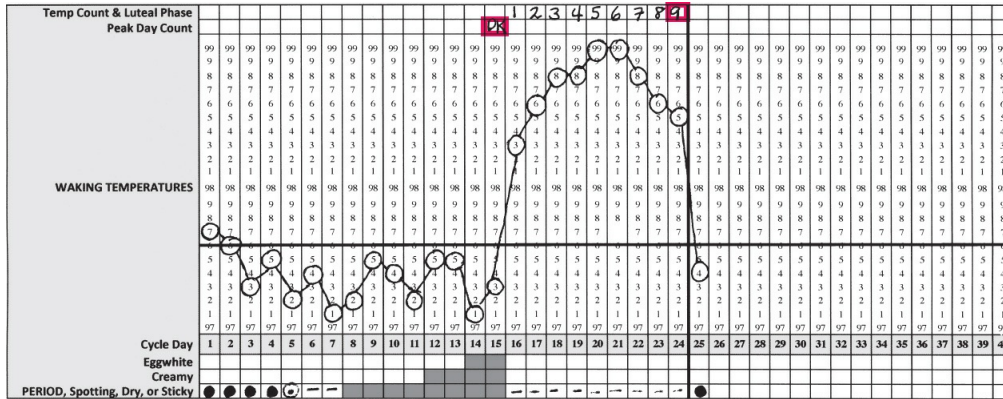
1. You have a luteal phase deficiency, as seen in Morgan's chart below.
2. Your temps may take a few days to reflect ovulation, as seen in Christy's chart below.

The way to resolve the ambiguity is to identify your Peak Day before the rise in temperature, since ovulation usually takes place within a day or two of that day. If there is a large discrepancy between the Peak Day and the thermal shift, you can probably assume your temperature takes several days to increase following ovulation.

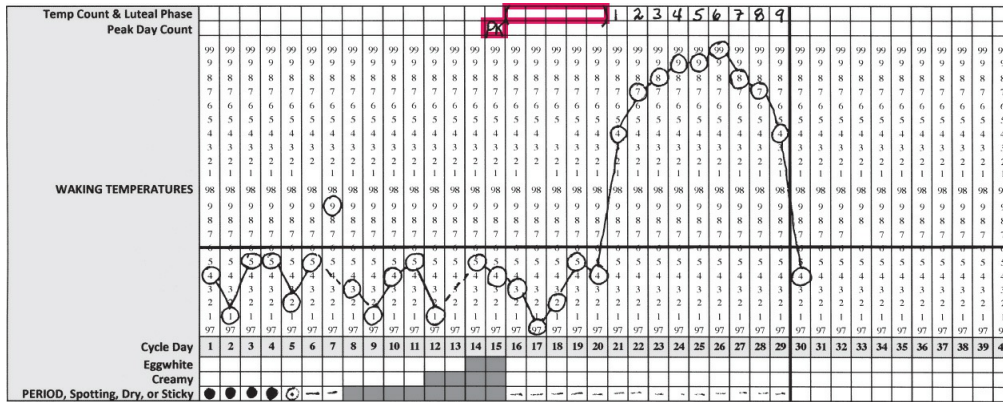
Alas, the only way to definitively confirm whether your temps are lagging following ovulation is through ultrasound, but this would obviously be impractical. Still, if you find that you have this pattern, it might be worth it to follow those few days around ovulation one time with ultrasound to learn how long your body takes to increase temps in response to progesterone.

If you do indeed have a luteal phase deficiency, [click here](#), whether you are trying to avoid or get pregnant.

If you are using FAM for birth control, your cervix on Peak plus 4 (not 3) may clarify your fertility status that day. If it is firm, low, and closed, you may decide to use just those two signs, and not your thermal shift. But you should understand that you may be taking a slightly greater risk in such a situation.



Morgan's Chart. Short luteal phase. Note that Morgan's temperatures are probably an indication of a true short luteal phase (9 days in this case), because the shift coincides with her cervical fluid. She most likely ovulated about Day 15 on this chart, since ovulation usually occurs about the day of, or the day after, the Peak Day.



Christy's Chart. Probably normal luteal phase. By contrast, Christy's chart shows that ovulation probably occurred earlier than the temperature reflected, because the Peak Day of cervical fluid was on Day 15, but the thermal shift wasn't until Day 21. Thus it appears her body takes a few days to respond to the postovulatory progesterone, and she therefore probably does not really have a short luteal phase.

18 OR MORE HIGH TEMPERATURES AFTER OVULATION

If you have 18 or more consecutive high temperatures above the coverline with no sign of a period, it's almost always an indication of pregnancy. The sustained high temperatures are due to the corpus luteum continuing to live and release progesterone beyond its typical 12-to-16-day life span. In fact, in many pregnant women, the pattern of high temperatures even increases to a third level caused by the additional progesterone in their body, as seen in the Triphasic Pregnancy Pattern chart below.

You should also remember that most women will have a consistent luteal phase (the time from ovulation to menstruation). So, for example, if your own luteal phase is typically about 13 days, and your temperature remains high for 16 days, there is a good chance that you are pregnant. The point is to determine if your temperatures are staying high longer than what is normal for you.

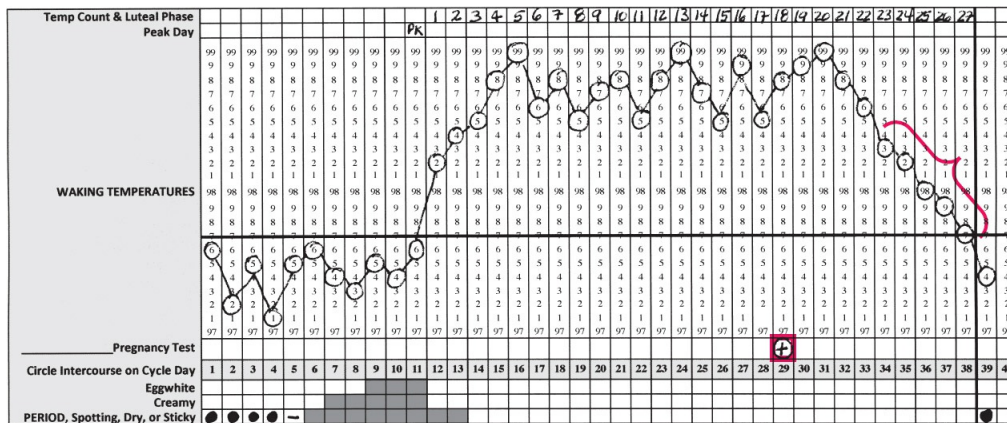
Another less likely reason for 18 high temperatures is an ovarian cyst, either from LUFs (luteinized unruptured follicle syndrome), or a corpus luteum cyst. In both cases the corpus luteum may continue to live beyond the normal 12 to 16 days—even when the woman isn't pregnant. If this should happen, the temperature would continue to remain high due to the progesterone that is still being emitted from the persistent corpus luteum. Of course, if the progesterone doesn't drop, the uterine lining is not shed during menstruation, which is why it could *appear* as if you were pregnant.

You may also notice light spotting and mild pain about the time your period is due. A positive pregnancy blood test will likely rule out an ovarian cyst, but if your test is negative and you continue to have high temps, a manual exam and ultrasound of the uterus may be warranted to see if you have one. If it turns out that you do, the good news is that they usually dissipate on their own. [Chapter 8](#) covers ovarian cysts in greater detail.

DROPPING TEMPERATURES AFTER EITHER 18 HIGH TEMPERATURES OR A POSITIVE PREGNANCY TEST

If you begin to experience dropping temperatures after you have confirmed that you are pregnant through either 18 high temperatures or a pregnancy test, you should contact your doctor as soon as possible. The plummeting temps are often a strong indication that you are in danger of having a miscarriage. In healthy pregnancies, your postovulatory temps will almost always remain high for at least the first trimester of your pregnancy due to the continued effects of progesterone.

Spotting, on the other hand, is not necessarily a signal of impending miscarriage, and indeed, many women notice normal implantation spotting in the week to 10 days following ovulation ([click here](#)). However, any significant bleeding beyond that should be checked by your physician.



Signs of a potential miscarriage

Partially open cervix

BUMPS ON THE SURFACE OF THE CERVIX

You may notice bumps that feel like hard granules of sand just under the skin of the cervix. They are called nabothian cysts, and are caused by skin cells that clog fluid-producing glands near the cervical surface. Usually considered harmless, they tend to disappear on their own. Still, you may want to have a clinician confirm your suspicion the first time you feel one. Some women notice that they come and go with the cycle. Of course, a woman would probably never realize she even had them unless she checked her cervix.

Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
Eggwhite																																											
Creamy																																											
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Fertile Phase and PEAK DAY																																											
VAGINAL SENSATION																																											
Cervix																																											
Notes																																											

Nabothian cysts on cervix

Frequently Asked Questions

As a FAM instructor, I have been asked just about every possible question regarding fertility. I have chosen to address the most frequently asked among them in this appendix. They are categorized by subject, but are more thoroughly discussed in relevant sections of the book. These pages simply serve as a review, or perhaps as an introduction for your friends, who may want to know more about such a fundamental aspect of their lives.

✿ THE FERTILITY AWARENESS METHOD (FAM)

How effective is FAM for birth control?

What is the difference between FAM and the Rhythm Method?

Is FAM a good method for everybody?

How many days do you have to abstain when using FAM for birth control?

Is there really a risk of pregnancy if I only have sticky (non-wet) cervical fluid?

Do women ever have truly “dry” days?

How much time is required to learn and use the method?

Do I have to wake up every day at the same time to take my temperature?

How can temperatures be relied upon if I sometimes get a fever?

Is it worth checking my cervical position?

Is it possible to conceive without observing slippery eggwhite-quality cervical fluid?

♀ **OVULATION**

Do women always ovulate on Day 14 of their cycle?

Can you “feel” ovulation happen?

Can a woman ovulate more than once per cycle?

What is multiple ovulation?

Do women feel more sexual around ovulation?

Can orgasm trigger ovulation?

✿ FERTILITY AND CYCLES

What percent of a woman's cycle is fertile?

What are your chances of conceiving in any given cycle?

Can a woman get pregnant during her period?

Is it true that a woman can get pregnant anytime?

Can a woman get pregnant if she hasn't been menstruating?

Can you have a cycle in which you don't ovulate but you still get your period?

How does the Pill work?

Can stress affect your fertility?

How many days can sperm survive?

How long can a human egg survive?

What should I look for now that might help identify a potential fertility problem in the future?

✂ THE FERTILITY AWARENESS METHOD (FAM)

HOW EFFECTIVE IS FAM FOR BIRTH CONTROL?

If used correctly every cycle, and you abstain during the fertile phase, the FAM rules taught in this book have a failure rate of approximately 2% per year. This is considered lower than any barrier method except the condom, which is also 2%. (Sterilization and chemical methods such as Depo-Provera and the Pill have an even lower equivalent failure rate of 1% or less.) However, for those couples who choose to have sex during the fertile phase while using a barrier method, the overall failure rate will naturally be no lower than the rate of the barrier the couple chooses to use. Of course, you can dramatically improve those rates by using two barriers during the fertile phase.

In actual use, studies show that failure rates vary greatly, from about 1% to 20% per year, with most of the variance being a direct function of the motivation of the couples involved. For a more thorough discussion of Fertility Awareness and contraceptive effectiveness, see [Appendix D](#).

WHAT IS THE DIFFERENCE BETWEEN FAM AND THE RHYTHM METHOD?

Probably a more appropriate question is: What do they have in common? The only thing is that they are both natural methods of birth control. However, the Rhythm Method is an obsolete, ineffective method of identifying the fertile phase using statistical prediction based on *past* cycles to predict *future* fertility. The Fertility Awareness Method, on the other hand, is a scientifically validated method involving the observation of the three primary fertility signs: cervical fluid, waking temperature, and optionally, cervical position. Unlike Rhythm, FAM is very effective because the woman's fertility is determined each and every day.

IS FAM A GOOD METHOD FOR EVERYBODY?

No, not as a method of birth control. It's recommended only for monogamous and married couples, given the danger of AIDS and other STIs. In addition, it's only appropriate for those women who have the discipline to learn the method well, and then to follow the rules once they have internalized them.

However, as a method of pregnancy achievement, it should be the first step that every couple takes to maximize their chances of conception, and to determine if there may be anything impeding their ability to get pregnant. In addition, it can be very helpful for couples desiring to plan the timing of their baby's birth.

FAM is also highly beneficial for all women who simply want to educate themselves about their own bodies. So even if you have no interest in using the method for avoiding or achieving pregnancy, it's an empowering means of taking control of your gynecological health and developing true body literacy.

HOW MANY DAYS DO YOU HAVE TO ABSTAIN WHEN USING FAM FOR BIRTH CONTROL?

You never have to abstain when using the Fertility Awareness Method. This is different than Natural Family Planning, which does require abstinence during the fertile phase. However, if you have intercourse when you are potentially fertile, you should ideally use two barrier methods of contraception simultaneously. The fertile phase will vary, but in practice this means that the average couple would have to use barriers about 8 to 10 days per cycle, or about 30% of the time.

IS THERE REALLY A RISK OF PREGNANCY IF I ONLY HAVE STICKY (NON-WET) CERVICAL FLUID?

Yes. While sticky cervical fluid is certainly much less fertile than creamy or eggwhite, it's still possible to conceive from preovulatory intercourse on a sticky day, which is why it's considered fertile before ovulation.

DO WOMEN EVER HAVE TRULY “DRY” DAYS?

When a woman charts, she identifies her cervical fluid by various degrees of wetness, and records a dash if no cervical fluid is present at the vaginal opening. This symbol for dry refers to a lack of cervical fluid outside of her vagina, and not to internal vaginal moisture, which is present to some degree all of the time.

It's easy to distinguish between cervical fluid and vaginal moisture. Cervical fluid on your finger will stay moist for minutes or longer, whereas vaginal moisture, like that inside your mouth, will dissipate from your finger within seconds. If you don't have any cervical fluid, you will usually have a distinct feeling of dryness.

HOW MUCH TIME IS REQUIRED TO LEARN AND USE THE METHOD?

How long it takes to learn the method will vary with each woman. I hope that many of you will be able to assimilate all you need to know by thoroughly reading the relevant chapters of this book. Others will also want to consult with a FAM counselor, or take a class from a qualified instructor, which often includes individual follow-up consultations. It's also worth noting that it usually takes about two or three cycles of observing your fertility signs to feel confident enough to rely on FAM for birth control.

Charting usually requires about 2 minutes per day: about 1 minute to take your temperature with a digital thermometer upon awakening, and about a minute or so to check and record the other fertility signs. If you eventually use the shortcut method as described in [Chapter 12](#), you will only need to chart about 10 days per cycle. However, I should reiterate here that while it is true that the shortcut method does not compromise contraceptive efficacy, for simple continuity I personally recommend charting every day of your cycle (outside menstruation), especially for the first few cycles that you chart.

I should also point out that some women may not be able to use digital thermometers if they do not observe an obvious temperature pattern reflecting ovulation. In that case, those women would want to use a glass basal body thermometer, which requires five minutes upon awakening.

DO I HAVE TO WAKE UP EVERY DAY AT THE SAME TIME TO TAKE MY TEMPERATURE?

You should try to be as consistent as possible. In general, waking temperatures tend to creep up every hour you sleep in. Thus, if you take it substantially later than usual, it may result in a reading that is outside the range of your usual pattern. If you wake up earlier than usual, you can take your temperature upon awakening, but if you notice that your temperatures don't follow an obvious pattern, try to take it about the same time.

Regardless, an occasional aberrant temperature can easily be dealt with by following the [Rule of Thumb](#). And as discussed in [Chapter 12](#), if taking your temperature feels like a burden, you can, in fact, take it for only about a third of the cycle without sacrificing contraceptive efficacy.

HOW CAN TEMPERATURES BE RELIED UPON IF I SOMETIMES GET A FEVER?

There may be several factors, from fever to alcohol to lack of sleep, that could affect your waking temperatures. Yet this doesn't compromise your ability to rely on them while charting, because you ultimately want to identify a pattern of low and high temperatures, rather than focusing on individual ones.

Outlying temperatures can be effectively dealt with by using the Rule of Thumb discussed [here](#), which usually allows you to ignore them in interpreting your chart. In addition, you will always be able to rely on your other two fertility signs of cervical fluid and cervical position to cross-check your fertility in ambiguous situations such as these.

IS IT WORTH CHECKING MY CERVICAL POSITION?

Although it is not necessary to check your cervix in order to practice FAM effectively, I encourage you to learn how to do so. At a minimum, you may want to start learning by practicing checking in the days leading up to and just following ovulation, when the changes are the most dramatic, at least for the first few cycles that you're learning the method. Once you recognize how

your cervical position reflects your fertility, you will always be able to use it as a cross-check whenever you find the slightest ambiguity in your other two fertility signs.

The bottom line is that complete familiarity with the changes in your cervix will greatly increase the confidence with which you observe your fertility and overall gynecological health. And since it takes only seconds a day to check, my attitude is that for those few relevant days per cycle, just do it!

A distinct but closely related question is whether those women using FAM for contraception should ever check their cervical *fluid* at the cervix. The short answer is that isn't necessary to do so, although if you want to be even more conservative than the FAM rules require, or if you simply want to know your cervical fluid status ahead of time, you can learn how to do so by reading [Appendix G](#).

IS IT POSSIBLE TO CONCEIVE WITHOUT OBSERVING SLIPPERY EGGWHITE-QUALITY CERVICAL FLUID?

If you are trying to conceive, you shouldn't get discouraged if you don't see eggwhite. It doesn't mean there is necessarily anything wrong, and as long as you have some type of wet-quality cervical fluid, the sperm should still be able to swim through the cervix to ultimately reach the egg.

Think of cervical fluid on a continuum from the extremes of dry to eggwhite, with successively wetter cervical fluid in the middle. As you can imagine, the ideal quality would be the wettest and most slippery, since this is the type that most closely resembles the man's seminal fluid. Still, if you don't notice the eggwhite quality, it probably just means that your "window of fertility" is shorter than those women who do produce it.

Regardless, there are a number of things you can do to increase your chances of conceiving. Most importantly, you want to be sure to time intercourse for the last day of whatever is your wettest day or vaginal sensation, even if that means only a quality such as creamy cervical fluid. In addition, I have listed some practical ways to increase the quality and fluidity of your cervical fluid [here](#).

♀ OVULATION

DO WOMEN ALWAYS OVULATE ON DAY 14 OF THEIR CYCLE?

No! The day of ovulation can vary among women as well as within each individual woman. However, once a woman ovulates, the time between ovulation and her menstruation is consistent, almost always between 12 and 16 days. Within most individual women, this length of time generally doesn't change by more than a day or two. In other words, if there is going to be variation in the cycle, it is the first preovulatory phase that may vary. The second (postovulatory) phase generally remains constant.

CAN YOU “FEEL” OVULATION HAPPEN?

Some women can. It is called *mittelschmerz* (or “middle pain”) and is a mild pain or achiness near the ovaries. It may be due to the egg actually passing through the ovarian wall, but it could also be caused by swelling within the ovary before ovulation or even a small amount of blood irritating the pelvic walls after ovulation.

But the most obvious outward sign of impending ovulation is increasing wet and slippery cervical fluid. In fact, it can be so abundant that women may notice a string of cervical fluid literally hang down when they are using the toilet. (Yikes!) If she does notice this, she should assume that ovulation is likely to happen within a day or two, and perhaps even within the following few hours.

Of course, cervical fluid is one of the *primary* fertility signs. Some women are lucky enough to notice other signs on a regular basis, such as the *mittelschmerz* mentioned above, all of which are very helpful in being able to further understand their cycles. They are called secondary fertility signs because they don't necessarily occur in all women, or in every cycle in individual women. Yet they are still very practical for giving women additional information to identify their fertile and infertile phases.

Secondary signs around ovulation may include:

- midcycle spotting
- ovarian pain or achiness
- increased sexual feelings
- fuller vaginal lips
- abdominal bloating
- water retention
- increased energy level
- heightened sense of vision, smell, and taste
- increased sensitivity in breasts and skin
- breast tenderness

CAN A WOMAN OVULATE MORE THAN ONCE PER CYCLE?

No. Think about it. Have you ever heard of a woman getting pregnant on Monday, and then again that following Friday, and then two weeks later on Thursday? Certainly not, because once a woman ovulates, her body cannot release any more eggs that cycle. Ovulation can take place over 24 hours, though, during which time one or more eggs may be released (as in the case of fraternal twins). But once ovulation has occurred, it is virtually impossible for a woman to release another egg until the next cycle.

WHAT IS MULTIPLE OVULATION?

Multiple ovulation is the release of two or more eggs in a single cycle. It occurs within 24 hours or less, after which no more eggs can be released until the following cycle. It's responsible for fraternal twins, as opposed to identical twins, which are the result of a single egg that divides after fertilization.

Multiple ovulation appears to be more common than once thought. While it is true that about 1 in 60 naturally conceived births are fraternal twins, researchers now realize that there may be many more fraternal conceptions. Most of these second fetuses miscarry in what is called the “vanishing twin phenomenon.”

DO WOMEN FEEL MORE SEXUAL AROUND OVULATION?

Many women do. Because estrogen peaks around ovulation, women typically experience a wet, slippery sensation due to the fertile cervical fluid they produce. This cervical fluid feels similar to sexual lubrication, and can therefore be experienced as a sexual feeling. A woman who practices FAM needn't worry about confusing the two, though, because cervical fluid is checked periodically throughout the day, and not when she is sexually aroused.

CAN ORGASM TRIGGER OVULATION?

No! Orgasms and ovulation are unrelated. In order to ovulate, estrogen gradually builds up, usually over a period of days. Orgasms can occur at any time in the cycle, thank goodness!

✂ FERTILITY AND CYCLES

WHAT PERCENT OF A WOMAN'S CYCLE IS FERTILE?

The answer to this question is somewhat tricky. The general answer is that most women are fertile for only a few days per cycle. However, there are several factors to consider:

1. The woman's egg can only live up to 24 hours. Two or more eggs may be released over a maximum of 24 hours. So, in a vacuum, a woman is fertile for only about a day or two. But the man's sperm can live up to 5 days, so the combined fertility of the two individuals is about a week.
2. For a couple trying to get pregnant, the woman's fertile phase is only as long as she has fertile-quality cervical fluid preceding ovulation. That might be several days, or less than one.
3. For a couple trying to prevent pregnancy, FAM adds a buffer zone of a few days on both sides of her fertile phase to assure that an unplanned pregnancy does not occur. This usually amounts to about 8 to 10 days per cycle.

WHAT ARE YOUR CHANCES OF CONCEIVING IN ANY GIVEN CYCLE?

It is believed that the average fertile couple who does not chart has about a 25% chance of conceiving for any given cycle, depending on their age, frequency of intercourse, and numerous other factors. Of course, if couples are taught precisely when to time intercourse based on when the woman is most fertile, those odds can be greatly increased.

CAN A WOMAN GET PREGNANT DURING HER PERIOD?

The answer lies in the wording of the question. More precisely, it's

essentially impossible for a woman to *conceive* during her period, but on rare occasions it's possible for a woman to get pregnant from *intercourse* during her period. Note the difference in the two statements.

Since sperm can live for five days, a couple could have sex near the end of the woman's period, and the sperm could then live long enough to fertilize an egg several days later, if the woman had a very early ovulation. (Conception is more likely in these cases if intercourse occurs at the end of a 6- or 7-day menstruation.) It's also possible that women who think they got pregnant from intercourse during their period were actually having sex during ovulatory spotting.

IS IT TRUE THAT A WOMAN CAN GET PREGNANT ANYTIME?

No, it's not. A woman can only get pregnant from intercourse while she has fertile-quality cervical fluid present, the few days surrounding ovulation. In addition, while ovulation can vary from cycle to cycle, once a woman ovulates, she cannot ovulate again for the remainder of that cycle.

CAN A WOMAN GET PREGNANT IF SHE HASN'T BEEN MENSTRUATING?

Yes, but certainly not as likely as the average woman. Since a woman releases an egg 12 to 16 days *before* menstruation, it's possible to get pregnant without actually having periods. Thus, women who are not menstruating for whatever reason (excessively low body fat, breastfeeding, being premenopausal, etc.), are always at risk of impending ovulation. This is because the underlying condition causing the lack of menstruation could change, thus unexpectedly triggering the release of an egg.

The bottom line is that women who don't menstruate cannot count on their condition as reliable contraception. In fact, the only practical way to know if ovulation is approaching is through charting your cycles, and more specifically, observing the changes in your cervical fluid.

Of course for those couples desiring to get pregnant, the reality is that you will definitely want to resolve the underlying problem preventing menstruation. Until you do so, your chances of conception will be very low, as discussed in [Chapter 7](#).

CAN YOU HAVE A CYCLE IN WHICH YOU DON'T OVULATE BUT YOU STILL GET YOUR PERIOD?

The quick answer is, “Yes, sort of.” But the more enlightening and biologically correct answer is that if you fail to release an egg, the bleeding you experience will be what is referred to as anovulatory bleeding. The distinction is this: Technically speaking, a period is the bleeding that occurs about 12 to 16 days after the release of an egg. So, if no egg is released, it is not really a period that follows, but anovulatory bleeding.

There is a huge difference between cycles in which the woman ovulates but does not get her period, and one in which she gets her period but does not ovulate. What is that difference? In the former case, the woman is almost certainly pregnant! In the latter case, she has had an anovulatory cycle.

HOW DOES THE PILL WORK?

In essence, the Pill works by manipulating the normal hormonal feedback system. The end result is that the body doesn't release the hormones necessary to stimulate the ovary to release an egg. As a backup, several other facets of the woman's reproductive system are also altered. The cervix is prevented from producing the fertile-quality cervical fluid necessary for sperm movement and survival, and the uterine lining is obstructed from producing a rich site for egg implantation.

CAN STRESS AFFECT YOUR FERTILITY?

The role that stress plays on one's fertility is fairly complex. Stress itself is not believed to prevent conception. However, it can delay ovulation by suppressing the hormones necessary for ovulation to occur. If a couple trying to get pregnant adheres to the myth of ovulation always occurring on Day 14, they may then inadvertently prevent pregnancy by timing intercourse on the wrong day, thus triggering a vicious circle of misperceived infertility causing more stress. Charting her cycle would allow the couple to regain control by correctly identifying the woman's fertile phase.

HOW MANY DAYS CAN SPERM SURVIVE?

Sperm can generally survive a maximum of 5 days in the fertile-quality cervical fluid that women produce around the time of ovulation. It is much more likely that sperm will survive a maximum of 3 days, and only a few hours in dryer, less fertile types of cervical fluid. If there is no cervical fluid present, the sperm will usually die within a couple of hours.

HOW LONG CAN A HUMAN EGG SURVIVE?

Most ova survive about 6 to 12 hours after ovulation. However, for the purposes of contraception, the Fertility Awareness Method assumes a 24-hour survival period, plus an additional 24 hours in case there is a multiple ovulation.

WHAT SHOULD I LOOK FOR NOW THAT MIGHT HELP IDENTIFY A POTENTIAL FERTILITY PROBLEM IN THE FUTURE?

If you plan to get pregnant someday and experience any of the signs listed below, you should consult with your physician to rule out any possible conditions that may require treatment. These problems are discussed throughout the book, and can be referenced in the index:

- anovulation
- intense menstrual cramps
- short luteal phases of less than 10 days
- more than two days of premenstrual spotting or postmenstrual brown bleeding
- irregular or no cycles, often accompanied by extra weight, acne, excess body hair, and excessive fertile-quality cervical fluid

The Menstrual Cycle: A Summary of Events Through the Use of the Proverbial 28-Day Model

The main text of this book provided a brief overview of how the female reproductive system works. Still, I believe it's worth taking a few pages here to give a somewhat more detailed description of the typical menstrual cycle. For those of you who have often wondered how and why your body does what it does, this summary can offer a more complete introduction to the topic. Should you find it interesting, I would encourage you to explore a more thorough discussion of the subject in biology and medical texts, especially if you experience gynecological conditions that stray considerably from the norm.

Like so much in nature, your body is a highly complex system of continuous feedback loops. If they are functioning smoothly, the menstrual cycle's hormonal influences will ultimately create an intricate self-correcting thermostat. Of course, the principle goal of the system is a much more ambitious project than keeping a room at 72 degrees. Every cycle, your body works to produce an egg capable of being fertilized, and the conditions necessary to nurture it for the duration of a pregnancy.

In order to explore how this happens, I'll take the prototype 28-day cycle and analyze the hormonal developments that occur in chronological progression. I will also overlay the major fertility signs so that you can review how the pieces all fit together. *Of course, please remember that what*

*will follow is a description of a perfectly functioning 28-day cycle, but as you certainly know by now, what is 28 days for Jane Doe may be a completely normal 21 to 35 days for you. In fact, studies show that less than 15% of cycles are precisely 28 days, and it's equally rare for ovulation to occur on exactly Day 14.**

🌸 THE KEY HORMONES

Before beginning, let's review the primary function and sources of the five most important female hormones. While your reproductive system has more than a dozen hormones, these are the five key ones that I think women should know. They are:

1. Follicle Stimulating Hormone (FSH): The hormone most responsible for the initial development of a select few follicles each cycle. Under the influence of FSH, a dozen or so follicles evolve from tiny and immature (antral and primordial) to relatively large and partially matured (vesicular). As this occurs, the eggs within each follicle gradually approach the capacity to be ovulated. FSH is produced in the anterior part of the pituitary, but absorbed by FSH receptor cells on the follicular wall. The pituitary is a gland at the base of the brain located between the brain stem and the hypothalamus. There is little FSH in the system as menstruation begins.

2. Estrogen: The most potent of the three main types of estrogen is estradiol, the type that is produced by the follicles that develop within your ovaries as you progress from menstruation to ovulation. Each cycle, it is responsible for maturing eggs and the uterine lining as well as developing a wet, fertile-quality cervical fluid as you approach ovulation. In addition, it's responsible for promoting the maturation of female sex organs as well as secondary sexual characteristics. There is very little estrogen in your system as a new cycle begins.

3. Luteinizing Hormone (LH): The other major hormone produced in the anterior pituitary, LH is responsible for both stimulating and completing follicular growth (with FSH), as well as the luteinization of the ruptured follicle in order to transform it into a corpus luteum following ovulation. LH is best known for the "LH surge," that dramatic increase in LH production that serves as the immediate trigger to ovulation, which follows a day or so later. Together, FSH and LH are

called the pituitary or gonadotropin hormones. There is little LH in the system as menstruation begins.

4. Progesterone: The heat-producing hormone primarily manufactured by the corpus luteum, following ovulation. It is the hormone most responsible for nurturing and maintaining the endometrium in the postovulatory phase. As you have learned, the corpus luteum is the follicular body on the interior of the ovarian wall that is left behind by the ovulated egg. The immediate cause of menstruation is the cessation of progesterone production, triggered by the disintegration of the corpus luteum a couple of days earlier.

5. Gonadotropin Releasing Hormone (GnRH): The hormone produced in the hypothalamus, which, when secreted, causes the anterior pituitary to increase production of the gonadotropin hormones, specifically FSH and LH. The hypothalamus is located just above the pituitary, and essentially forms the floor and lower walls of the brain. It's for this reason that some speculate stress and other environmental factors can play havoc with the length of menstrual cycles. It is believed that stress directly affects the hypothalamus and its manufacture of GnRH, which in turn changes output of FSH, LH, and so on down the cyclical line.

Knowledge of GnRH is somewhat more speculative than that of the other hormones. This is because it is harder to monitor since it operates between the hypothalamus and pituitary within the brain. It is known that it's released in pulses that last about an hour or so, and that various experiments have shown that it is indeed these GnRH pulses that stimulate FSH and LH production within the anterior pituitary. However, there is still some uncertainty as to the intensity and timing of GnRH production within the hormonal system. (It is for these reasons that GnRH is not charted on the graph in the color insert.)

✿ THE ROAD TO OVULATION

Day 1 of any cycle is the first day of menstruation. As you've learned by now, it is hardly the most important day, for that distinction belongs to the day of ovulation. Yet for women the world over, it certainly is the most noticeable event. The majority simply accept their menstrual fate, and some (though I suspect not most) have even learned to celebrate it. In any case, why the bleeding, and why now?

As with any recurring cycle, you can't simply pick a given day, call it the first, and then explain what is going on, without at least acknowledging that what happens on Day 1 is a direct result of what happened on the last days of the previous cycle. In this case, it was the sudden plunge in progesterone, the hormone that had kept the endometrial wall nourished and in place, which now causes the dramatic menstrual events that mark the first phase of the reproductive cycle. As menstruation begins, none of the key hormones are present in significant quantity.

In the days before you begin to menstruate, the uterine wall, or endometrium, has reached its full maturity, approximately 8–13 millimeters thick. Cellular proliferation in the endometrium has been accompanied by swelling and secretory development, as well as an increased supply of nutrients and blood vessels that have built up over the previous cycle. In brief, the endometrium has reached the goal necessary for its only purpose: to provide the appropriate conditions to nurture a fertilized ovum.

Now, on Day 1, with neither progesterone nor the HCG (human chorionic gonadotropin) that an implanted embryo would supply, the endometrial wall begins to disintegrate. Over a period of approximately 5 days, the uterine lining is gradually washed away as the blood vessels that supply it with nutrients and oxygen begin to constrict. Menstrual blood begins to flow from the uterus through the cervix and out the vagina. The secretion that results also contains matter from the collapsing endometrium. Over the course of your period, you will generally lose anywhere from 1 to 4 ounces of blood and other fluids, though 2.5 ounces appear to be more typical.

As soon as you have begun to menstruate, your body's endocrine system

has started to take action. Even before the first day of the new cycle, the pituitary gland has already begun to secrete small but ever increasing amounts of FSH, the hormone that begins to develop the dozen or so follicles in the ovary that will later compete for the prize of ovulation a couple of weeks later. It's generally believed that the plunging levels of progesterone and estrogen in the last few days of the previous cycle is what allows for the increased production of FSH. In other words, it was the high levels of progesterone (and to a lesser extent estrogen) that had been blocking FSH production.

By about **Day 5**, or just as menstruation is ending, the pituitary also begins to release small but increasing amounts of LH. It is believed that LH production within this stage of the cycle is about 3 days behind production of FSH. In fact, the gradual release of LH is a direct result of a positive feedback system triggered by the previous production of FSH. As the FSH begins to act on the handful of ovarian follicles that move toward ovulatory potential, they begin to develop a new coating of granulosa cells, cells that in turn begin to secrete the first amounts of estrogen for the new cycle.

It is this new estrogen that apparently signals the hypothalamus to release GnRH, which in turn triggers the gradually increasing secretion of LH. This newly released LH, working in biochemical unison with FSH, continues to develop those follicles whose growth now extends this positive feedback system of follicular development for the next several days. As your period ends, the hormonal game plan is now well on its way to creating the conditions necessary for ovulation. Indeed, follicular growth during menstruation has already doubled the size of the several primordial follicles that have started to mature for that cycle.

By **Day 7 or 8**, and for reasons not completely understood, one of the follicles begins to emerge as dominant, while the others begin to disintegrate in a process called atresia. Many endocrinologists believe that the dominant follicle has begun to secrete so much estrogen in the week or so following menstruation (Days 6 to 12) that LH and FSH production is somewhat decreased. It's believed that the increased estrogen begins to signal the hypothalamus to reduce production of GnRH, thus slowing the manufacture of LH and FSH. And it is this slowdown that leads to the atresia of most of the other primary follicles, though the dominant follicle continues to mature. (In cases of multiple ovulation, two or more follicles progress to complete

maturation.)

While creation of FSH and LH is therefore reduced in Days 6 to 12, estrogen production from the emerging dominant follicle begins to rise dramatically. This rising level of estrogen begins to act on your uterus, in both noticeable and subtle ways. As the estrogen rises, the endometrial cycle also begins anew, with the beginning creation of stromal and epithelial cells within the uterus. By about Day 12, this building process has resulted in an endometrial wall approaching 5–7 millimeters thick, whereas when menstruation had ended a week earlier, there was virtually no such structure in existence.

As this process moves forward, the rising levels of estrogen are also beginning to produce the fertility signs that form the foundation of this book. Usually by about Day 8 or 9, their effect on cervical glands have triggered the first flow of cervical fluid, although this early in the process it is generally a sticky quality. But as estrogen production from the developing follicles within the ovaries rises to its highest levels on Days 10 through 13, the cervical fluid gradually changes to creamy or wet, and then to slippery eggwhite. Typically by Day 13, estrogen levels have reached their peak, with the resulting cervical fluid having reached its most lubricative consistency. By now, the cervix itself is soft, high, and open.

By **Day 12 or 13**, something dramatic happens in the hormonal feedback system. As already stated, increasing levels of estrogen are believed to be the reason FSH and LH production are kept relatively low in Days 6 to 13. But at a certain point, and for reasons we don't truly understand, estrogen production reaches a threshold level in which its hormonal effect on the pituitary abruptly reverses. LH secretion by the anterior pituitary gland suddenly surges six to ten times its normal rate, peaking about 12 to 16 hours before ovulation. Within hours of this LH surge, a less dramatic FSH surge follows. In combination, the two cause a negative feedback effect that suddenly shuts down the production of estrogen in the remaining dominant follicle. The follicle has now fully matured, reaching an approximate size of 15–20 millimeters. For this 28-day journey, you have now reached the halfway point, and thus ovulation is imminent.

On about **Day 14**, under direct stimulation from the soaring levels of the gonadotropin hormones, the dominant follicle begins to ooze liquid from a protrusion that has formed on its surface. Simultaneously, it begins to swell,

severely weakening the follicular wall. Sometime during the next few hours, the follicle ruptures, with the interior ovum being propelled through the ovarian wall into the abdominal cavity. Ovulation has now taken place.

Most likely, your cervical fluid has reached its last day of slippery eggwhite (and in fact has already begun to rapidly dry up), your cervical position has reached its most fertile (i.e., soft, high, and open), and that morning, you most likely had your last low basal temperature before the thermal shift. For many of you, Day 14 will also produce *mittelschmerz*, that secondary fertility sign in which an occasional sharp pain around your abdomen verifies indeed that ovulation is about to or already has occurred.

✿ COMPLETING THE CYCLE

The newly released ova is gently drawn in by the fimbria at the end of the fallopian tube, and it now begins its journey through the tube. Assuming there are no sperm to fertilize it, it will disintegrate within the next 6 to 24 hours. Meanwhile, the body's own hormonal progression continues unabated into the next phase. Back in the ovary from which ovulation took place, the leftover granulosa cells of the dominant follicle are quickly being transformed into luteinizing cells by the high amount of LH. Within hours, these cells have formed the corpus luteum on the interior of the ovarian wall, and it in turn has already begun to secrete heavy doses of progesterone into the body. Waking up on Day 15, you can usually see the result, as this heat-producing hormone triggers your thermal shift.

From **Day 15 until about Day 26**, the corpus luteum continues to secrete large amounts of progesterone, as well as a modest amount of estrogen. There are several things that immediately result from this combination of hormonal stimulants. With the dramatic fall of estrogen production caused by the hormonal events immediately preceding ovulation, the fertile cervical signs quickly reverse. By Day 16, there is generally no more cervical fluid, and the cervical position has returned to firm, low, and closed.

Still, the corpus luteum continues to release enough estrogen to continue building up the endometrial wall. In addition, progesterone both holds the wall in place as well as contributes to additional endometrial swelling and development, so that by Day 26 the endometrium has reached a thickness of 7–16 millimeters. Were a fertilized egg to reach the endometrium anytime from Day 21 onward (which is likely the first day it could have if ovulation was a week earlier), this uterine shelter would now be ready to nurture the new embryo.

In the days following ovulation, the combination of high progesterone and low estrogen creates other hormonal effects. Most important, the anterior pituitary and hypothalamus are now alerted by the progesterone to sharply curtail production of GnRH, LH, and FSH. Thus levels of these hormones will stay very low from ovulation until near the end of the cycle, or about

Day 27. Meanwhile, the corpus luteum itself continues to grow under the initial influence of the LH surge, but peaks in size about a week after ovulation. By Day 21, it can be from 2–5 centimeters, and has generally reached full maturity.

Without the continued presence of LH to sustain it, the corpus luteum now begins to deteriorate. It continues to secrete large but decreasing amounts of progesterone (thus sustaining the endometrium), but by about Day 26, its secretory function is extinguished and cellular degeneration occurs rapidly. Had there been a pregnancy, release of HCG from the developing fetus would have signaled the corpus luteum to remain viable for several more months, until the placenta matured enough to take over its function.

Thus by **Day 27**, the body's release of progesterone (as well as estrogen) has plummeted, setting the stage for the hormonal transition to the next menstruation, and the beginning of another cycle. As soon as the corpus luteum dies, the absence of ovarian hormones allows for the initial buildup of FSH. And most dramatically and as previously discussed, the plunge in progesterone production quickly triggers the disintegration of the endometrial wall, and the beginning of your next period. We are now once again where this voyage began.

COMMON TERMS TO DESCRIBE THE MENSTRUAL CYCLE PHASES

Preovulatory:

Estrogenic Phase

Follicular Phase

Proliferative Phase

Postovulatory:

Progestational Phase

Luteal Phase

Secretory Phase

✿ KEEPING TRACK OF THE MENSTRUAL JOURNEY

I would like to conclude by repeating what I hope this book has already made clear: While the prototypical 28-day cycle is a useful tool for charting chronological order and biological cause and effect, it is in fact not the cyclical experience of most women most of the time. As you have already learned, typical cycle lengths vary among women from 21 to 35 days, and of course within individual women, there may be variations over time due to stress, diet, and other influences.

You already know that given these factors, it's not possible to predict the length of the preovulatory phase, and thus the preceding description was accurate as to the order of events, but not as to the actual day of occurrence. I hope that if nothing else, this book has taught you that in matters of fertility, you simply need to chart if you want to know where you are within your cycle.

The Contraceptive Effectiveness of Natural Birth Control

Why do mice have such small balls? Because only 10% can dance!

—A JOKE TOLD AMONG BIOSTATISTICIANS WHO NO DOUBT GOT IT
QUICKER THAN THE REST OF US

Before any couple decides to use a method of contraception, they should know its rate of effectiveness. The only “guaranteed birth control” is abstinence, and thus, for any sexually active woman of reproductive age, there is always some risk of pregnancy. A critical question in selecting a contraceptive is ascertaining the degree of risk you personally find acceptable.

The Fertility Awareness Method as taught in this book (the Sympto-Thermal Method), if understood thoroughly and always used correctly, is extremely effective in preventing pregnancies. In fact, it is so effective that the weakest link will be the barrier method you use, if you choose to have intercourse during your fertile phase. This is why I would encourage you to abstain, or to at least use two barriers simultaneously during your most fertile days.

If used perfectly and you abstain during your fertile phase (as is done with Natural Family Planning), the chance of becoming pregnant would be approximately 2% over the course of a year. According to the 20th edition of *Contraceptive Technology*, this is a lower failure rate than any barrier method

except the condom, which is also 2%. This means that if you correctly use a barrier throughout the fertile phase, the chance of your becoming pregnant would be close to the method failure rate of the barrier you use. The table [here](#) will help to put this data in context.

Indeed, putting contraceptive data into proper social and biostatistical perspective is an important undertaking that is worth the few minutes it takes to read this appendix. You should know that when scientists discuss the efficacy of a contraceptive, there are in fact two different types of effectiveness ratings. One is called “method failure rate,” and refers specifically to the ability of a given form of birth control to prevent pregnancies when that method is used correctly for every act of intercourse. What is considered correct usage is usually defined by set guidelines, often spelled out by contraceptive manufacturers. For the Fertility Awareness Method, correct usage is detailed in [Chapter 11](#) of this book.*

In many ways, what is more important than the method failure rate of any contraceptive is the “user failure rate,” for that is where you can see what occurs in the real world. User failure is generally defined as the rate of unwanted pregnancies for the population as a whole, taking into account both correct and incorrect usage. For example, the method failure of the condom is estimated by Contraceptive Technology at 2%, but user failure is closer to 15%, in part because men sometimes fail to put it on in a way that avoids leakage. This means that over the course of the first year of use, 15% of regular condom users will become pregnant. Fortunately, user failure rates for almost all contraceptives tend to drop after the first 12 months.

As you can imagine, there are some birth control methods in which the method and user failure rates are nearly identical, because the method chosen does not rely on the behavior of the user. Male and female surgical sterilization is the best example of this, with both method and user failure at well below 1%. Their health risks and side effects aside, it’s true that long-term hormonal treatments such as Implanon and Depo-Provera are also exceptionally effective, with both method and user failure rates even lower than sterilization!

Standard birth control pills have a method failure rate of .5% or lower, but typical user failure rises to 5% or higher, depending on the study. This is primarily because women may forget to take the Pill now and then. As the table shows, the condom has a lower method failure rate than the other barrier

methods, but all barriers show user failure rates substantially higher than their corresponding method rates. This is because some people are not sure how to use the particular contraceptive or, more likely, because people are somewhat careless in their employment of the various devices.

Where does this leave NFP among the major contraceptive methods? (For the rest of this appendix, I will usually refer to NFP and not FAM, unless dealing specifically with barrier method issues. This is because research on the effectiveness rates of natural methods should not be compromised by barrier method failures.) As I have already stated, the method failure rate of the rules as taught in this book is estimated at 2%. However, the user failure rates are much harder to pinpoint, because quite frankly, the medical literature is filled with studies showing such rates ranging widely, from 1%, to certain studies claiming user failure as high as 20%.*

With such a wide discrepancy in data, is it possible to use the rules with the confidence you need? In fact, yes, very much so, but first you need to know where the data arise and why the discrepancy in reported rates is really not such a mystery. Finally, you need to really think about what the data do imply in terms of the type of people who should, and should not, use NFP or FAM as their contraceptive choice.

✂ NATURAL FAMILY PLANNING: HIGHLY EFFECTIVE, HIGHLY UNFORGIVING

NFP is highly effective when used correctly, but more than any other method, it is extremely unforgiving of improper use, or more specifically, of “cheating.” The reason for this is really quite logical. If, for example, you misuse a diaphragm or condom or even forget to take a Pill, the chances are that for any individual act of intercourse it probably wouldn’t matter anyway since you most likely wouldn’t be in the fertile phase of your cycle. NFP, of course, is the exact opposite, in that if you disregard the rules, you are by definition having unprotected intercourse *precisely* when you are potentially fertile. To use NFP effectively, you need to understand this, and most important, you need the necessary motivation to avoid pregnancy. As the major studies make clear, if you lack the latter, you will indeed be taking substantial and foolish risks.

As mentioned, various studies show that in the real world, NFP user failure rates vary greatly. Still, 10 to 12% per year seems close to the average reported in the medical literature for the Sympto-Thermal rules taught in [Chapter 11](#). But what is equally important is that all these studies clearly suggest that in a large percentage of pregnancies that occur while “using” NFP, the cause of conception was due to intentional violation of the method rules. Simply put, many couples without sufficient motivation did cheat, and many of those paid the price.*

Ultimately it is a question of semantics as to whether those couples reflect user failure or simply should be considered nonusers, but you can see why NFP and FAM instructors get frustrated when they hear that the method is “not really considered effective.” Indeed, a man using a condom who remains inside too long after ejaculation can certainly be included in the user failure rate. But if just one day he gets lazy and leaves the condom in the drawer, is this seriously a user failure if a pregnancy results? I would suggest that for any contraceptive, intentional and complete abandonment of the method in question reflects a category of non-usage that simply cannot be classified as true user failure.

More than any method, motivation to avoid pregnancy dramatically affects the user failure results. Some of the studies have in fact separated the test groups into motivational categories such that, for example, couples who used NFP to avoid pregnancy were put in one group whereas those who used NFP merely to better space their children were put in another. Not surprisingly, the “spacers” would invariably take greater chances, resulting in user failure rates substantially higher than the “avoiders,” who showed user failure rates as low as 2%. (In fact, user failure rates well below 1% have been documented, but usually when the pre-ovulatory rules are more restrictive than the ones taught in this book—see ¶¶ at the bottom of the chart [here](#).)

✂ NFP, MOTIVATION, AND RESPONSIBILITY

I write all of this not simply to tell you that the medical literature (and mainstream media) is inherently biased against NFP in reporting its effectiveness. The fact is that the numbers do tell us something quite valuable, that each one of you should contemplate before deciding whether NFP is the right method for you. Simply stated, the wide variance in user and method failure rates shows that the very “device-free” nature of the method means that it is extremely easy to slip into a “taking chances” mentality. Indeed, NFP is not a difficult method to learn, and learn well, but it is unfortunately an easy method to practice poorly, which by its very nature can often mean to not practice it at all.

The bottom line on NFP as a contraceptive choice is this: No one truly wishing to avoid pregnancy should be using it if they do not thoroughly understand the rules of the method, and, most important, have the necessary discipline to follow those rules correctly and consistently. If you do not completely understand the method as presented in this book, I urge you to get training through one of the institutions listed [here](#) before relying on NFP as a contraceptive choice. Ultimately, natural methods of contraception are only appropriate for those couples with the maturity and focus necessary to not take foolish risks.

✂ FERTILITY AWARENESS, BARRIERS, AND THE FERTILE PHASE: ASSESSING THE ODDS

There are a number of tangential issues related to Fertility Awareness efficacy rates that should be briefly addressed so that all couples can make the most appropriate contraceptive decisions. As I have mentioned, studies have shown that the method failure of NFP is estimated at 2%. However, you should realize that there is a higher risk of pregnancy for those couples who use barrier methods rather than abstain when the woman is fertile.

The statistical reality is fairly intuitive. For those couples who choose to use a barrier method over abstinence throughout the fertile phase, the method and user failure rates of FAM will always be at least as high as the failure rates of the barrier they choose to use. It is for this reason that I suggest that couples who do not abstain use a condom as their method of choice, with at least one *other* method during the most fertile days. At an approximately 2% method failure rate and 15% user failure rate, condoms are a better barrier than any of the others, as seen in the table [here](#). (Of course the very fact that you'll know that you are fertile should encourage the type of diligent behavior necessary for keeping your own user failure rate to a minimum.)

For those couples who are determined to absolutely minimize their risk yet do not want to practice abstinence for the full fertile period, there are very reasonable compromises. In reality, the vast majority of conceptions will occur from intercourse that takes place when the woman has wet or eggwhite cervical fluid. This is the time not only closest to ovulation, but also the time that sperm have the best odds of survival. If a barrier is going to fail, it is very likely to happen at this point in the cycle. Fortunately, for most women this phase lasts just 3 or 4 days. Thus for those determined to avoid pregnancy, I suggest you consider alternatives to intercourse for that short period of time.

✂ FAM/NFP AND THE RISK CONTINUUM

In discussing the contraceptive rules and the temptation to stray from them, it should be clear that there is in fact a range of possible acts that make up the entire pregnancy-risk continuum. Given this, I would like to address the increased risks associated with what I know to be the specific times most couples are tempted to “cheat.”

Unprotected Intercourse When the Two Postovulatory Rules Don't Coincide

Some women may notice that the Thermal Shift and Peak Day rules do not always reflect infertility on the same day. The safest approach is to consider yourself fertile until both rules say that you are not (the line “farthest to the right” as described [here](#)). Regardless, it is at such times that checking your cervical position can be very helpful in clarifying any ambiguity.

Unprotected Intercourse on Preovulatory Dry Days Before Evening

One of the most common questions I am asked is what risk is associated with unprotected intercourse on preovulatory dry days before evening. As you know, that condition was stipulated to give the cervical fluid a chance to descend to the vaginal opening, lest unprotected intercourse that morning be greeted by unseen cervical fluid wet enough to nurture the sperm that noon. Unfortunately, I have not found any studies on this particular issue (you could imagine the logistical problems in arranging such a survey).

However, my years of teaching this method have convinced me that the increased risk is small, if you can verify before intercourse that there is no cervical fluid at your cervix and your cervix remains in the lowest infertile position. The physiological possibility that sperm can survive in such a dry vaginal environment long enough for the cervical and hormonal changes that

are necessary for their survival must be remote, and thus I personally would not consider this to be an unreasonable risk. But until studies verify my personal beliefs, unprotected intercourse at such times in the cycle must still be considered abandonment of the rules taught in this book.

Unprotected Intercourse on Preovulatory Sticky Days

The risk of unprotected intercourse during the preovulatory sticky cervical-fluid phase is a directly related issue. In reality, the only women who can have unprotected sex during this time with only a small rise in risk are those who have clearly established that they have a Basic Infertile Pattern of sticky days, as discussed [here](#).

For all other women, you should not take the risk. The truth is that you are not extremely fertile at this time, because sperm need wet cervical fluid to survive beyond a few hours, and anyone with stickiness is probably still a few days from ovulation. However, it is also a fact that if you're just a little unlucky, sticky fluid can turn to wet in the few hours before sperm will die, thus preparing the way for a conception in the days to follow.

Unprotected sex at this point is therefore the type of cheating that increases the "user failure" rates in all Fertility Awareness studies. I would argue that such acts are an incorrect use of the method. But if you still decide to take the increased risk, I strongly urge you to verify that there is no wet cervical fluid at the cervix before having sex. If there is, intercourse without a barrier would be truly risky.

✿ A FINAL WORD ON CERVICAL POSITION AND CONTRACEPTIVE EFFICACY

By now, it should be obvious that your cervical position can play an important role in confirming your fertility status. So for those of you determined to take the absolute lowest risk of pregnancy while still using natural birth control, I suggest that you continue to use the standard rules but limit intercourse to when your cervix is in its lowest, most infertile position (with no wet cervical fluid at the cervix). Although no studies have been done, I believe that if women did this, NFP method failure would fall from 2% to well below 1% per year. Admittedly, you may find that such a guideline results in an extra day or so of abstinence, but this may be a trade-off that you're happy to accept.

✂ A NOTE ABOUT THE BILLINGS METHOD

Finally, I should mention here that many people around the world practice a simplified form of Fertility Awareness called the Billings Method. The primary way that it differs from the Fertility Awareness Method used in this book is that it relies exclusively on observing cervical fluid to determine the fertile phase, and requires abstinence during the fertile phase. Because it does not use basal body temperature to verify the occurrence of ovulation, failure rates are somewhat higher, though method failure is still listed at only 3% by Contraceptive Technology.

The problem is with user failure, which is generally quite a bit higher than the corresponding Sympto-Thermal rates. For this reason, I personally urge you to use a basal body thermometer in order to maximize both contraceptive efficacy as well as the number of days considered safe for unprotected intercourse.

CONTRACEPTIVE METHOD EFFECTIVENESS TABLE*		
	Typical User Method	Method Failure
Chance	85%	85%
Spermicides (foams, creams, vaginal suppositories, etc.)	28%	18%
Cervical cap† (w/spermicidal cream or jelly)	6%	9%
Sponge‡	12%	9%
Diaphragm (w/jelly/foam)	12%	6%
Withdrawal	22%	4%
Female Condom (Reality)	21%	5%

Male Condom (without spermicides)	18%	2%
The Pill§	9%	0.3%
IUD**	≤0.8%	≤0.6%
Sterilization (male and female)	≤.5%	≤.5%
Depo-Provera	6%	0.2%
NFP‡‡ (FAM w/Sympto-Thermal rules as taught in this book, and abstinence during fertile phase)	(see footnote ‡‡)	2

* All data in this table are adapted from *Contraceptive Technology, Twentieth Revised Edition*, 2011, unless otherwise noted.

† For women who have given birth, the failure rates are substantially worse, at 32% and 26%, respectively. These data taken from 2004, since not listed in 2011 edition.

‡ For women who have given birth, the failure rates are substantially worse, at 24% and 20%, respectively.

§ Method failure rate varies with type of Pill chosen.

** Method failure rate varies with type of IUD chosen.

‡‡ The 2007 edition of *Contraceptive Technology* puts NFP method failure of the Sympto-Thermal rules taught in this book at 2%, and that is the one we've chosen to print in this chart. The 2011 edition actually puts the method failure rate of the Sympto-Thermal method even lower at .4%, but that is because it's based on a major German metastudy in which the pre-ovulatory rules are much more conservative than what is taught here. (They require that women take the earliest temp rise of their last 12 cycles and then subtract seven days to identify the first fertile day. While this will indeed bring down method failure rates, the trade-off is that many women will have almost no pre-ovulatory days that are considered safe.) To read the actual study, you can google *The Effectiveness of a Fertility Awareness Based Method to Avoid Pregnancy in Relation to a Couple's Sexual Behaviour During The Fertile Time: A Prospective Longitudinal Study* (Human Reproduction, 2007, p. 1310).

The Sympto-Thermal user failure rate is not listed. Based on the various studies throughout the medical literature, the traditionally calculated user failure rate appears to be about 10 to 12%. However, when intentional violation of the method rules is factored out, this number falls substantially.

Finally, method and user failure rates for other fertility-awareness based methods that use only

one of the two primary signs (cervical mucus *or* basal body temps) are somewhat higher, with the most widely used of those, the Billings Ovulation Method (cervical fluid only), at a generally acknowledged method failure rate of approximately 3%.

THE DIFFERENCE BETWEEN NATURAL METHODS OF BIRTH CONTROL

Fertility Awareness-Based Methods (FABMs) are natural methods that involve observing at least one of the primary fertility signs: cervical fluid, waking temperature, and cervical position. Therefore, the first three below are not technically FABMs, but are sometimes grouped together because they are still natural.

	Rhythm Method	Standard Days Method	Cycle Beads	Two-Day Method	Billings (Ovulation) Method	Creighton Model System (CRMS)	Justisse Method	BBT (Basal Body Temperature) Method	Sympto-Thermal Method (FAM/NFP)
Fertility Signs Observed	None	None	None	Cervical fluid	Cervical fluid	Cervical fluid	Cervical fluid (and optional waking temperature or cervical position)	Waking temperature	Cervical fluid and waking temperature (and optional cervical position)
Comments	An obsolete method based on a mathematical formula using past cycle lengths to predict future fertile phases.	Similar to the Rhythm Method. Couples avoid unprotected intercourse during the woman's presumed fertile phase of Days 8 through 19 if the woman has consistent cycles of 26 to 32 days.	The Cycle Beads are simply a gadget that can be used with the Standard Days Method to the left. But it can be easy to get confused about what day you are on with them, since there are no actual dates printed on the beads. So in reality, a calendar would actually be more useful to use with the Standard Days Method.	A simplified version of the Billings Method listed to the right. In essence, this method simply asks whether you observed a secretion the day before or that day. If you answer yes to either, you are considered fertile that day. It does not differentiate between qualities of secretions, so it is very easy to understand and apply.	The classic and first method in which only cervical fluid is observed.	Also called the Fertility Care System. Similar to the Billings Method, but uses extremely precise and standardized descriptions of cervical fluid.	Similar to the Creighton Model System listed to the left, since it uses virtually exactly the same extremely precise and standardized descriptions of cervical fluid. Also provides holistic health-care support to women experiencing different types of menstrual problems.	The days before ovulation are not available for unprotected intercourse because the rise in temperatures only indicates you are safe after ovulation.	A method in which at least two of the three primary fertility signs are observed, in addition to other optional secondary signs (such as ovulatory pain or spotting).
Effectiveness	Unreliable because it doesn't involve observing fertility signs on a day-to-day basis, so it doesn't account for an earlier or later than expected ovulation. Not recommended.	It can be effective for women with consistent cycle lengths. But as with the Rhythm Method, it doesn't involve observing fertility signs on a day-to-day basis, so it doesn't account for an earlier or later than expected ovulation. Thus, it's only recommended for women who are spacing their children or those who would be OK with a surprise unplanned pregnancy.	Exactly the same as the Standard Days Method to the left.	Because only secretions are observed, you do not have the benefit of a thermal shift to confirm that ovulation has indeed occurred. And since the rules aren't as strict as other methods that observe only cervical fluid, it may not be as effective.	Quite effective because cervical fluid is the most important sign to check when avoiding pregnancy naturally. But you do not have the benefit of a thermal shift to confirm that ovulation has indeed occurred, so not as effective as the Sympto-Thermal Method taught in this book.	As with the Billings Method to the left, it is quite effective because cervical fluid is the most important sign to check when avoiding pregnancy naturally. But again, you do not have the benefit of a thermal shift to confirm that ovulation has indeed occurred, so not quite as effective as the Sympto-Thermal Method taught in this book.	Again, as with the Billings Method to the left, it is quite effective because cervical fluid is the most important sign to check when avoiding pregnancy naturally. Since the Justisse Method also teaches the use of the optional waking temps and cervical position, it can be as effective as the Sympto-Thermal Method.	It is very effective, but only after ovulation.	This is considered the most comprehensive and reliable of all the natural methods because the two primary signs must corroborate each other before you are considered safe. It is the method taught in this book.

The difference between the Fertility Awareness Method (FAM) and Natural Family Planning (NFP) is that those who practice NFP choose to abstain during the fertile phase, whereas those who practice FAM allow themselves the option of using a barrier during the fertile phase. The Couple to Couple League is the best known organization that teaches NFP.

Birth Control Rules When You Can Only Chart One Fertility Sign

The most effective method of natural birth control is one in which you chart at least two primary fertility signs to corroborate each other, as with the Sympto-Thermal Method taught in this book. However, there may be times in your life when it is not practical to chart more than one sign, so the rules below are more conservative to compensate. Still, you should be aware that charting only one sign, even with these modified rules, may result in lower contraceptive efficacy.

Before reading further, you should be sure that you have internalized the concepts in [Chapters 6](#) and [11](#), including how to draw the coverline, how to establish your Basic Infertile Pattern (BIP), and how to identify your Point of Change.

In addition, during phases in your life when you don't ovulate for weeks to months on end, you will want to follow the rules in [Appendix J](#).

🌸 TEMPERATURE ONLY RULE

THERMAL SHIFT RULE

You are safe the evening of the 3rd consecutive day your temperature is above the coverline, as long as the 3rd temp is at least 3/10ths above.

If you are only charting your waking temperature, you can't consider yourself safe for unprotected intercourse until *after* ovulation, since temps don't warn you of impending ovulation; they only confirm when it has already occurred.

In addition, you may prefer to not consider yourself safe until the 4th evening above the coverline, since you don't have cervical fluid observations to corroborate your temps. Finally, you should never rely on this one rule if you've had a fever that could affect your temps, or your chart doesn't clearly show an ovulatory thermal shift.

🌸 CERVICAL FLUID ONLY RULES

Note that if you are not charting temps, you must follow *all* the rules below.

Preovulatory

BLEEDING RULE

Avoid intercourse on any days of bleeding.

Since you can't observe a thermal shift to confirm that the bleeding you are experiencing is true menstruation that occurs 12–16 days after ovulation, you must consider any bleeding as potentially fertile. This is because you can't risk mistaking ovulatory spotting or some other cause of bleeding.

DRY DAY RULE

Before ovulation, you are safe the evening of every dry day. But the next day is considered potentially fertile if there is residual semen that could be masking your cervical fluid.

Waiting until evening assures that you haven't missed the onset of developing cervical fluid during the day. But if there is residual seminal fluid the next day, it could mask cervical fluid, so you should abstain that day.

Postovulatory

MODIFIED PEAK DAY RULE

You are safe the evening of the **4th** consecutive day after your Peak Day, the last day of eggwhite or lubricative vaginal sensation. If wet cervical fluid, bleeding, or lubricative vaginal sensations ever return, you must begin the Peak Day count again before considering yourself safe again.

The reason this rule is modified to be stricter than the normal Peak Day Rule ([click here](#)) is because there is no thermal shift to confirm that ovulation has actually occurred.

Checking Cervical Fluid Internally Before Ovulation

This type of observation is fairly tricky and not easily learned from a book. So if possible, I would encourage you to either take a class, meet with a FAM professional, or do a phone consultation to better understand the nuances of internal checking. You can find professionals through the links [here](#).

The rules for the Sympto-Thermal Method of FAM are based on checking your cervical fluid *externally*, at your vaginal opening. The critical concept is to learn how to identify the Point of Change during those few days after your period ends, when your cervical fluid starts to evolve from dry to wet as you approach ovulation. Almost all women will have a pattern of transitional types of cervical fluid, whether it is sticky, rubbery, clumpy, or even just non-wet before it becomes wet. And you should be able to find all of these types at your vaginal opening when you wipe from front to back across your perineum with a flat folded piece of tissue.

However, if you are using FAM for birth control, there may be situations before ovulation when you want to check your cervical fluid at your cervix, itself, including when:

- You just want more assurance that you are reading your cervical fluid correctly
- You aren't sure whether you have accurately identified a dry day before ovulation
- You don't see much cervical fluid at your vaginal opening and thus want to check what is coming out of your cervix
- You experience a discrepancy between what you feel and what you see (for example, if you feel completely dry but you see a round circle of wet on your underwear, or when you feel wet but observe nothing at your vaginal opening)
- You are physically active most of the day and thus sweat a lot
- You are breastfeeding or premenopausal, or any other time when you are not ovulating regularly, and are relying strictly on cervical fluid

Of course the only time it's worth doing an internal check is on days that you have identified as dry externally, and thus you want to confirm that you are indeed safe for preovulatory intercourse. Once you find *anything* externally, you need to consider yourself fertile, so there is no need to check internally.*

For most women, the easiest way to reach the cervix is by squatting, though you may prefer to put one leg on the bathtub. Regardless, after you choose whatever position is most comfortable for you, insert your middle finger first, and then slightly pull it out and also insert your index finger, placing them on each side of your cervix.

If you find that it is hard to do so because you are really dry, then that in itself is a good indication of low estrogen levels and the fact that you are probably not fertile that day. In any case, the trick is to gently draw cervical fluid from the cervix with a finger on each side, then pull them out *together* as you draw out the cervical fluid. This is because one finger alone won't allow you to remove whatever cervical fluid is actually at the cervix.



You will usually feel some type of moisture, since your vagina is similar to the inside of your mouth. And you will often find a white pasty or cloudy film on your fingers when you check internally. This is normal. What you are seeing is most likely just vaginal cell slough that is the result of the way your vagina cleans itself. After removing your fingers, pull them apart so you can determine what is between their tips. Is it wet? Creamy? Clear? Stretchy? Wave your fingers for a few seconds. If the secretion between your fingers dries, it's likely not cervical fluid.

If you do plan on checking internally during such days, you will want to be sure that you really familiarize yourself with how your internal cervical fluid differs from your external (specifically, how your internal vaginal moisture affects what you observe externally), so that you will always have a point of reference for the future. You may prefer to use the special chart at the back designed specifically for internal/external checking.

The key point is that before ovulation, you should always note whatever is the wettest quality you notice that day, whether it's internal or external. So, for example, if you feel dry externally, but internally, you noticed a wet creamy secretion from your cervix, to be conservative, you would want to use that observation in deciding whether or not to consider yourself safe that day.

Again, checking your cervical fluid internally is not required or expected for effectively practicing the Sympto-Thermal Method of birth control that is taught in this book. It is, however, one more step you can take to truly maximize its contraceptive efficacy, especially during those situations where you might want a little more assurance than just your external cervical fluid and waking temps. And of course, as always, you will have the cervical position itself to help corroborate the other signs.

You can see how internal checking is recorded on your chart below. Also,

Tricky Coverlines

No thermal shift

Outlying temperatures

Erratic temperatures

Weak thermal shift whose 3rd temp does not reach 3/10ths above coverline

Temperatures that rise 1/10th degree at a time (slow-rise pattern)

Temperatures that rise in spurts (stair-step pattern)

Temperature that drops on day 2 of the thermal shift (fall-back pattern)

Fever

Before reviewing tricky coverlines, you may want to reread [Chapter 9](#) on balancing your hormones, since these types of ambiguous thermal shifts could reflect a subtle imbalance or luteal phase deficiency.

✂️ OUTLYING TEMPERATURES

If you have temperatures that are clearly out of line (for example, from a fever, drinking alcohol the night before, or having slept in and taken your temperature late), simply apply the Rule of Thumb, covering any outlying temperatures with your thumb. Draw a dotted line between the correct temperatures on either side of the aberrant temperature. In calculating the coverline, you count the 6 low temperatures before the rise, not including the outlying temperature, as discussed [here](#).

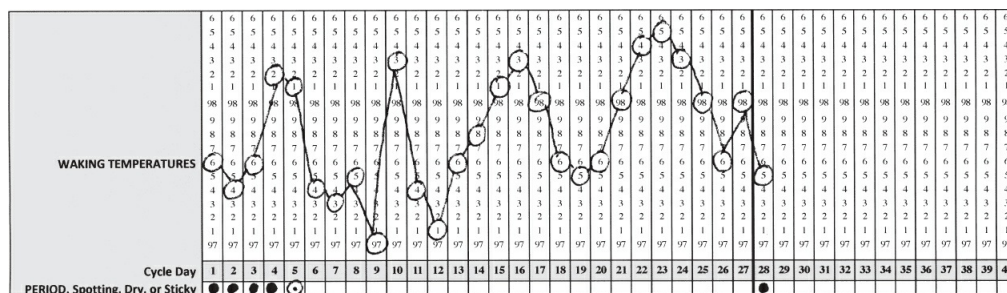
If you have an outlying low temperature after your temperature shift, you may apply the same principle of the dotted line. But if you are using FAM for birth control, you should never ignore a low temp if it is within the 3-day count after the thermal shift. To be safe, you must count 3 regular temperatures above the coverline before you consider yourself infertile. Of course, observing your cervical fluid and cervical position will help clarify any ambiguity.

See Lucy's and Lauren's charts below for two examples of how the Rule of Thumb is used, both before and after the thermal shift.

ERRATIC TEMPERATURES

Some women may find that their temperatures do not seem to follow the classic pattern of lows and highs. For these women, consider trying any of the following:

1. If using a digital thermometer, verify that the battery is not low.
2. Add another minute after the beep before removing it.
3. Consider trying a glass basal body thermometer, since digitals may be less accurate for some women. If you do so, be sure to take your temperature for a full 5 minutes.
4. Regardless of which type of thermometer you use, consider taking your waking temperature vaginally rather than orally. (Of course, be consistent in how you take it throughout your cycle.)
5. Remember that certain factors can definitely increase waking temperatures, such as fever, drinking alcohol the night before, or not getting 3 consecutive hours of sleep.
6. Try to take your temperature about the same time every day. For every hour that you sleep later than normal, your temperature may tend to creep up. Note the time you take it in the appropriate column, and use the Rule of Thumb discussed [here](#) to discount aberrant temperatures that may result from sleeping in. (This will prevent you from attributing a high temperature to a thermal shift before it has actually occurred.)



Erratic temperatures

✂ TEMPERATURES THAT RISE 1/10TH DEGREE AT A TIME (SLOW-RISE PATTERN)

Some women will notice that instead of their temperature shifting by at least 2/10ths of a degree higher than the cluster of the previous 6 lows, their temperatures may occasionally rise by merely 1/10th of a degree at a time. While this type of shift may seem confusing to interpret, it's actually fairly easy.

Notice the first time your temperature rises at least 1/10th degree above the highest of the last 6 temperatures. Once it increases another 1/10th degree, go back and highlight the 6 days before the first rise. Draw the coverline through it. After your temperature remains above the coverline for at least 3 days, and the 3rd temp is at least 3/10th above the coverline, you can consider yourself safe that 3rd night.

For pregnancy avoiders, to be conservative with this fairly rare temperature pattern, if your temperature does not rise to at least 3/10th above the coverline by the third day, you could choose to be a bit more cautious, and thus not consider yourself to have entered your infertile phase until either:

- the evening of the **4th** temperature above the coverline (rather than the 3rd above)
- the evening of Peak plus **4** (rather than Peak plus 3)

For pregnancy achievers, you should consider the postovulatory phase to be all the temperatures above the coverline, but realize that your ovulation may have occurred a day or so earlier. Remember that ovulation most likely occurs the day of, or the day after, the Peak Day.

See the chart below for how a slow-rise pattern would look on your chart.

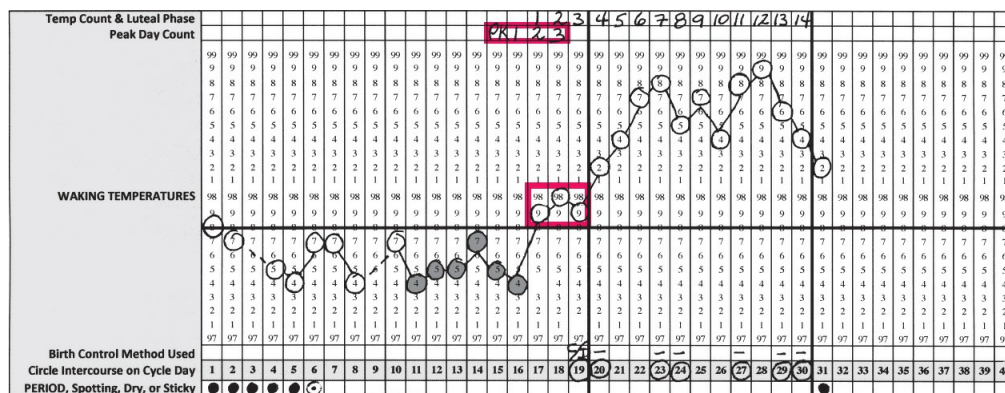
TEMPERATURES THAT RISE IN SPURTS (STAIR-STEP PATTERN)

One of the more common types of temperature patterns are those where the thermal shift occurs in an initial lower spurt of several days, followed by higher temps after. In other words, you will probably notice a cluster of 6 low temperatures followed by a shift of at least 2/10ths higher for perhaps 3 or 4 days, followed by still higher temps. The coverline is always drawn after the first shift of at least 2/10ths higher than the cluster of 6 preceding low temperatures.

For pregnancy avoiders, if your temperature does not rise to at least 3/10th above the coverline by the 3rd day, you should not consider yourself safe until:

- the evening of the **4th** temperature above the coverline (rather than the 3rd above)
- the evening of Peak plus **4** (rather than Peak plus 3)

For pregnancy achievers, when calculating your luteal phase, you should consider the postovulatory phase to be all the temperatures above the coverline.



Danielle's chart. Stair-step pattern. Note the initial spurt of 3 high temps on Days 17, 18, & 19. To be conservative for birth control, Danielle could have waited until the 4th night above the coverline, since her temps rose in spurts that hovered near it. But because her Peak Day was on Day 15 (as seen in

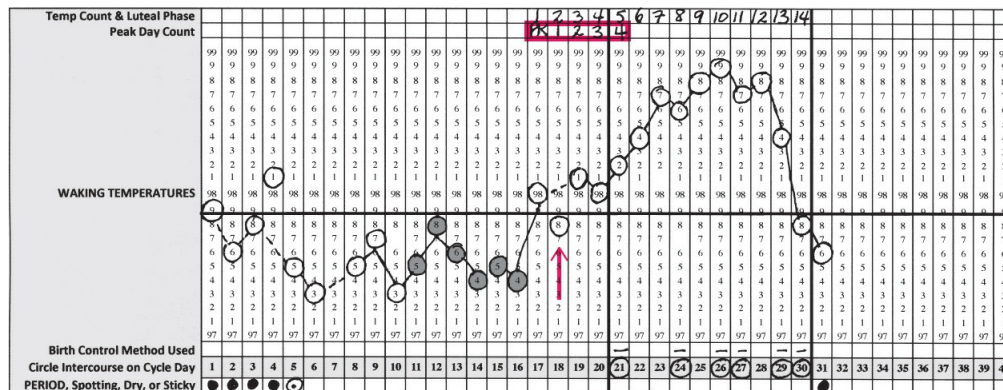
the Peak Day Count row near the top of the chart), Day 19 was already conservative for the Peak Day Rule, since it was Peak plus 4 at that point. Still not wanting to take a chance, she chose to use a condom and a diaphragm on that day, and then considered herself completely safe on Day 20.

TEMPERATURE THAT DROPS ON DAY 2 OF THE THERMAL SHIFT (FALL-BACK PATTERN)

Some women notice that they tend to have a pattern of a temperature drop on Day 2 of their temperature shift, followed by a sustained rise in temperatures until their period. If it is only a one-day drop, there is no need to re-draw the coverline.

For pregnancy avoiders, to be conservative, you would want to start the count over again after the second sustained rise to be absolutely sure that the egg(s) are dead and gone. If you don't want to wait the extra 2 days, you could rely on the Peak Day Rule to signal the start of the infertile phase. Admittedly, this could compromise contraceptive efficacy, but if you verify that you are once again dry, your temps have returned to their highs above the coverline, and your cervix has returned to its infertile state of low, closed, and firm, the increased risk of conception would be small.

For pregnancy achievers, you should assume that you ovulated about the day of, or day after, your Peak Day. As you know, this is the last day of wet-quality cervical fluid or lubricative vaginal sensation.



Katrina's chart. Fall-back pattern. In this cycle, Katrina's temp dropped below the coverline on Day 2 of her thermal shift. To be conservative, she needed to start the count over when it rose above the coverline again. (In fact, even if her temp had not dropped below the coverline, it still would have been safest to do Peak + 4 because her third post-thermal shift temp on Day 19 was not at least 3/10th above that coverline.)

In this case, because her Peak Day was the same day as her Thermal Shift on Day 17, she needed to do a Peak plus 4 count instead of Peak plus 3. These conservative adaptations meant that she wasn't safe until Day 21 of this cycle.

📌 FEVER

You will inevitably have a fever now and then while charting. Practically speaking, it's best handled by using the [Rule of Thumb](#), as discussed on page. Assuming the temperature is off the chart (as it were), you can simply record the higher temperature above the 99, noting the symptoms of your illness in the Notes row. Be sure to draw a dotted line between the normal temperatures on both sides of your fever. Also, remember that if you're using a glass BBT thermometer, you'll need to switch to a digital or fever thermometer for the days that you are sick.

Depending on the intensity of the fever and when it occurs in the cycle, there are three possible impacts that it could have. It could:

1. Have no effect
2. Delay ovulation, causing a longer than usual cycle
3. Suppress ovulation, causing an anovulatory cycle

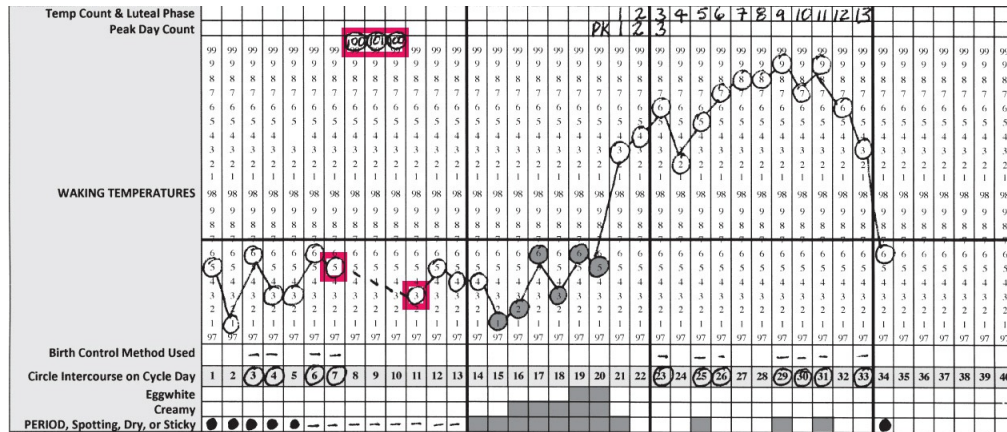
If the fever occurs after you've already ovulated, it will almost certainly have no effect. If it occurs before you've ovulated, any of the three are possible.

For pregnancy avoiders, you can continue to use FAM as birth control using all the rules described in [Chapter 11](#). However, if your illness is preovulatory, you obviously have to eliminate the temperatures discounted by the fever, and thus you cannot begin the 3-day count for the Thermal Shift Rule until you are no longer sick. Never assume you've entered your postovulatory infertile phase until you can clearly verify a temperature shift of 3 consecutive high temperatures without the interference of any fever. And before assuming that you're safe, verify that your other fertility signs also reflect that you've entered your infertile phase, as seen in Tracy's chart below.

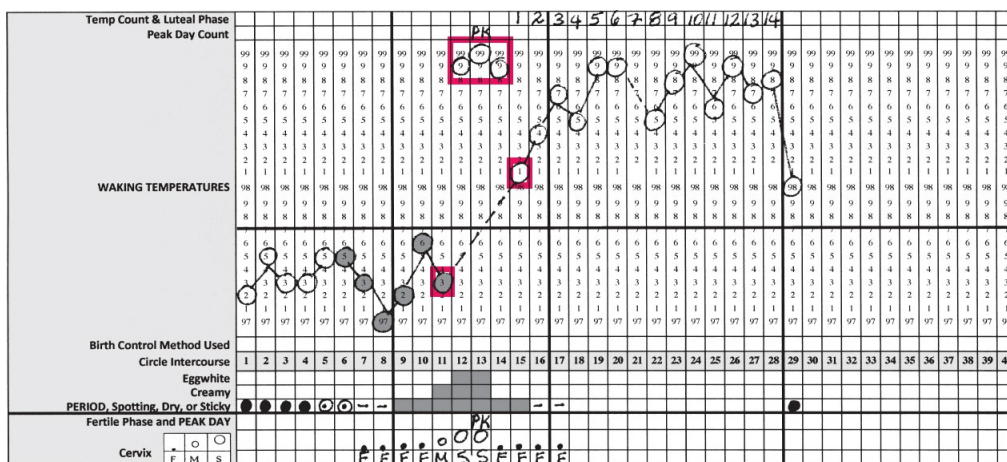
The one time in the cycle when this can be a bit tricky is if you get sick in the few days immediately leading up to ovulation, as seen in Ali's chart below. Still, you should be able to verify that ovulation has occurred, since once you're no longer sick, your temperatures will drop down to the higher

range of temperatures that you would normally have after ovulating. If the fever delayed (or suppressed) ovulation, your temperatures would drop all the way back down to their lower preovulatory range.

As always, you should remember that the most effective way to use FAM as a contraceptive method is to be sure that at least two of the primary fertility signs coincide. By doing this, it's unlikely that you will misinterpret the fever for a thermal shift.



Tracy's chart. Fever before ovulation. On Day 8 of her cycle, Tracy awakens to a bad flu, which pushes her temperatures off the chart for 3 days. She uses the Rule of Thumb for Days 8 to 10, in this case omitting those temps that are 99 or above. After recovering, she is able to verify that she still has not ovulated, since her temperature returns to its lower preovulatory range on Day 11. As she continues to chart, her signs reflect a delayed ovulation, which in this case probably occurs about Day 20.



Ali's chart. Fever during ovulation. Ali awakens to a cold and low-grade fever, starting on Day 12. She uses the Rule of Thumb to discount Days 12 to 14. Completely recovered by Day 15, she notes that her temps have fallen only to her relatively high postovulatory range. Thus she is able to start her temp count on Day 15, and by Day 17 she confirms through her two other primary fertility signs—cervical fluid and cervical position—that she has already ovulated. (Had her illness been intense enough to delay her ovulation, her temperature would have returned to its lower preovulatory range.)

Using FAM While Breastfeeding

Be aware that this appendix will be confusing if you haven't internalized the basic principles and rules discussed in [Chapters 6, 7, and 11](#). In addition, you will need to read the next appendix to apply the contraceptive rules for anovulatory cycles.

If possible, I would encourage you to consult with a FAM or NFP counselor before relying on natural birth control while breastfeeding, since your fertility signs during this time can be ambiguous. You can find FAM instructors through the [links here](#).

For those optimists who think you'll actually have time for lovemaking after having a baby, this appendix is for you. While breastfeeding is a wonderful experience for most women, it can be challenging to identify when fertility will return, even for those who have charted before. So let's set the record straight right from the very beginning:

Women *can* get pregnant while breastfeeding, especially if they don't chart their cervical fluid!

So why all the confusion about whether or not women are fertile while nursing? In fact, everybody knows a neighbor, friend, or relative who swears

she did or didn't get pregnant while breastfeeding. These women then become the standard by which people judge the effectiveness of breastfeeding for birth control.

Part of the problem is that most breastfeeding women are under the faulty impression that as long as their periods haven't returned, they can have sex with impunity. No period, no problem, right?

Wrong. Those of you who have already read this book can recite in your sleep what the flawed logic is with that thinking. Remember: ovulation occurs *before* menstruation, so just because you haven't gotten a period yet, you can still release an egg and get pregnant without ever having had to use a single tampon since before you gave birth!

In any case, the reason why some nursing women do get pregnant and others don't comes down to *how* they breastfeed, or more specifically, how intensively and how frequently. It's actually simple biology, for every time a baby suckles at the breast, the mother releases prolactin and oxytocin, which in turn inhibits various ovulatory hormones, including luteinizing hormone (the LH of the celebrated LH surge).

✂ HOW BREASTFEEDING AFFECTS THE RETURN TO FERTILITY

Different types of breastfeeding will produce different outcomes in terms of a woman's return to ovulatory cycles. If you are planning to nurse, you might want to consider the advantages, disadvantages, conveniences, and consequences of three different ways of doing it. More specifically, the three factors that suppress ovulation while breastfeeding are the following:

- duration in months
- frequency of feeds per 24 hours
- intensity of nursing—or more specifically, when you start to introduce bottles, solids, etc.

The Duration of Breastfeeding

Of all the key issues, this is about as straightforward as they come. This simply refers to the length of time you nurse. Of course, as you would expect, the more months you breastfeed, the greater chance that you will suppress ovulation.

The Frequency of Suckling

The more frequently the baby suckles, the less likely ovulation will return. While there are many factors that influence the return of periods during nursing, it is the *frequency*, rather than duration, which has the greatest impact on a woman's fertility. Thus, for example, if your baby merely sips from your breasts for 2 minutes every 20 minutes, that is more likely to release ovulation-suppressing prolactin than if he nurses for 6 minutes once an hour.

More realistically, your baby will probably need to suckle at least every 2–3 hours during the day and at least every 4 hours at night to prolong your infertility. Regardless, though, the key point is that *the longer and more often*

your baby is away from your breast, the sooner you will start ovulating again.

The Intensity of Breastfeeding

There are essentially two different types of nursing: partial and exclusive. As with everything, there are pros and cons to both.

Partially breastfeeding is the most common form practiced by women in developed countries. With partial nursing, a woman may breastfeed her infant according to a schedule, and she is happy to see her baby sleep through the night as early as possible (can you blame her?!). In addition, she may begin supplementing her own milk with formulas, baby foods, cereals, and bottles within weeks or months of giving birth.

She may also provide her baby with a combination of nursing, pumped breast milk, and formula. This form of breastfeeding is very convenient, of course, but it seriously limits the frequency of suckling at the breast, which means it is not uncommon for a woman to experience her first ovulation and menstrual period close to three months post-partum.

Exclusively breastfeeding is defined as nursing day and night, whenever your baby desires, during his first 6 months. In other words, all of his nutrition comes from your breast, since you don't give him bottles, solids, or even a pacifier. Your baby stays so close to you that you can nurse or pacify him whenever he wants.*

With this type of breastfeeding, a baby receives breast milk exclusively from the mother, without supplements. In fact, the mother could be working outside the home and expressing milk, while someone else is actually feeding him with a bottle. However, you need to be aware that if your baby is not suckling *when he or she desires*, your fertility may return faster than you prefer. You will need to follow the rules in the chart [here](#) carefully to avoid any unwanted surprises.

And even though many mothers nurse their babies a minimum of once every 4 to 5 hours at night, the baby might also be sleeping in another room and for long intervals. Indeed, even though this is technically considered “exclusively breastfeeding,” for some, it may include feeding schedules, and

relatively longer periods of separation from the baby. A woman in this category can usually expect to see her first menstrual periods resume within about a year.

In any case, someone had quite the sense of humor to design exclusively nursing women with the gift of anovulation, but alas, the sleep-deprived exhaustion prevents them from taking advantage of its contraceptive benefits.

✂ DECIDING WHAT TYPE OF BREASTFEEDING IS RIGHT FOR YOU

Choosing your own style of breastfeeding is a very personal decision. How you breastfeed and for how long after you give birth will be based on a number of factors, including your own goals and lifestyle. Your decision will also be influenced by the overall health and wellness of both you and your baby. Regardless, don't let others judge you, whatever decision you make.

To be sure, a new mom needs to take into account not only her own needs and desires, but also those of her baby. If the goal is long-term breastfeeding, she will need to practice frequent breastfeeding, day and night, to guarantee continuous breast stimulation and an adequate milk supply. In this situation, at night she may want to consider having her baby in bed with her or in a crib immediately alongside the bed, and during the day in a body sling. Doing all this will make frequent suckling both easy and accessible.

If a mom knows she will be returning to work within 3 to 4 months and she wants to nurse her baby long-term, she will need to consider if and how often she will be able to express milk while away from home. A woman who desires to breastfeed for an extended period will also need to decide what happens when her baby begins sleeping for more than 4 or 5 hours straight at night. Will she wake the baby, let the baby sleep, or will she opt to pump milk? If a woman who starts out with full breastfeeding decides to introduce solids earlier than six months, she should prepare herself for an earlier first ovulation while enjoying the freedom of increased mobility and independence.

Regardless, if breastfeeding ever becomes a burden, it may be time to re-evaluate your goals and plans. There are no right answers. Every woman needs to find the balance that works for her. Defining this balance will involve considering her personal preferences and lifestyle as well as her true commitment to what is, in the end, a deeply gratifying but often time-consuming process.

✿ CHARTING, FAM, AND THE TRANSITION TO RESUMED FERTILITY

Breastfeeding women will almost always have a warning of returning fertility through observation of their cervical fluid. In fact, they will probably have many patches of cervical fluid that tend to be somewhat longer than normal as the body attempts to finally ovulate after months of anovulation. More specifically, you will probably notice quite a few “false starts” in which you experience more and more patches of fertile-quality cervical fluid as your body tries to pass over the estrogen threshold necessary to release an egg.

In any case, in order to chart while nursing, you will first need to wait until your lochia stops. Lochia is the bleeding and spotting that emanates from the part of the endometrium where the placenta imbedded before being released after childbirth. As it heals, it usually becomes less red. The lochia may continue for about 5 weeks after childbirth.

You should probably not have sex for 6 weeks or so anyway in order to give your body and cervix a chance to recover from childbirth. But if you resume checking your cervix, you’ll notice that after giving birth vaginally, the cervical os tends to feel more like a slightly open horizontal slit rather than a small round dimple. So it may take time for you to learn how it now feels when open and closed.

Regardless, once you are ready to chart again, the next appendix details how to use FAM when experiencing anovulation (no matter what the cause, including breastfeeding). In addition, there is a summary table on the last page of this appendix that lists the various FAM rules to follow, depending on what type of breastfeeding you are using. You will probably want to review both at least a couple times if you plan to use breastfeeding for contraceptive purposes.

The Transition Back to Normal Cycles After Childbirth

Typical Cycles Before Childbirth

Phase 1	Phase 2	Phase 3
Before ovulation	Around ovulation	After ovulation
Low fertility	Fertile	Infertile

First Three Cycles After Childbirth

Your first cycle following childbirth may be months to even a year long before you finally ovulate. You will initially have about 5 weeks of blood-tinged secretions from your healing uterus (called lochia). Even during those months of infertility, you may go through numerous patches of wet cervical fluid that you need to treat as *potentially* fertile. Finally, you will ovulate, with your first Luteal Phase after childbirth often shorter than normal.

1 st Cycle Postpartum	1	2	1	2	1	2	1	2	3
	Low fertility	Fertile (wet patches)	Low fertility	Fertile (wet patches)	Low fertility	Fertile (wet patches)	Low fertility	Fertile (wet patches)	

Your second cycle may be relatively normal, but don't be surprised if you have a longer Fertile Phase and still shorter Luteal Phase than normal.

2 nd Cycle Postpartum	1	2	3
	Low fertility	Fertile	Infertile

Your third cycle will often return to your normal cycles that you experienced before you had your baby.

3 rd Cycle Postpartum	1	2	3
	Low fertility	Fertile	Infertile

✂ CONCLUDING REMARKS ON NATURAL BIRTH CONTROL WHILE BREASTFEEDING

The most important thing to remember when experiencing the transition from childbirth to resumed cycling is to constantly be on the lookout for a change in cervical fluid that could indicate approaching ovulation. You may prefer to not take your temperature until you see that change, but once you do, you can also have the benefit of checking your cervical position during any times of uncertainty.

You should also not be surprised if you go through weeks or even months of wet cervical fluid before you return to normal cycles. Understandably, this can be very frustrating if you are trying to avoid pregnancy again. So you'll need to decide whether you want to abstain during those long stretches or use a barrier method.

Remember that your body has not ovulated in a long time, and it may take a while for it to get back to its usual pattern of fertility. While this could test your patience, try to keep it all in perspective. Before long, your baby will be dating and you'll be dealing with bigger issues than your *own* contraceptive concerns!

NATURAL BIRTH CONTROL RULES WHILE BREASTFEEDING

Degree of Breastfeeding	Natural Birth Control Rules	When to Resume Observing Cervical Fluid, Temps, and Cervical Position	Comments
<p>Not Breastfeeding At All (Only Bottle-Feeding)</p>	<p>Unchanging Day Rule Patch Rule</p> <p>The two rules listed above, discussed in the next appendix, are used until ovulation is confirmed with a thermal shift.</p> <p>Then revert back to the normal FAM rules below:</p> <p>First Five Days Rule Dry Day Rule Peak Day Rule Temperature Shift Rule</p>	<p>Cervical Fluid After your lochia diminishes at about 5 weeks after childbirth</p> <p>Temps About 3 weeks after childbirth</p> <p>Cervical Position After your doctor gives you the go-ahead to resume sex—usually about 4 to 6 weeks after childbirth</p>	<p>Cycles may resume within about 7 to 9 weeks after childbirth.</p> <p>You must consider yourself preovulatory until you can confirm that ovulation has resumed by a temperature shift about 2 weeks prior to a period (but remember that the first few luteal phases after childbirth may be short).</p>
<p>Partial Breastfeeding</p> <p>Supplements such as bottle-feeding, juices, and solids are given. Pacifiers may be given.</p> <p>It also means nursing less frequently than every 4 hours during the day or every 6 hours at night.</p>	<p>Unchanging Day Rule Patch Rule</p> <p>The two rules listed above, discussed in the next appendix, are used until ovulation is confirmed with a thermal shift.</p> <p>Then revert back to the normal FAM rules below:</p> <p>First Five Days Rule Dry Day Rule Peak Day Rule Temperature Shift Rule</p>	<p>Cervical Fluid After your lochia diminishes at about 5 weeks after childbirth</p> <p>Temps (whichever comes first)</p> <ul style="list-style-type: none"> • when you notice a change in your BIP to wet cervical fluid or • have a bleeding episode or • nurse less frequently or • you introduce solid foods <p>Cervical Position After your doctor gives you the go-ahead to resume sex—usually about 4 to 6 weeks after childbirth</p>	<p>Partial breastfeeding is the most challenging to chart because it is harder to anticipate when you will resume ovulating.</p> <p>You must consider yourself preovulatory until you can confirm that ovulation has resumed by a temperature shift about 2 weeks prior to a period (but remember that the first few luteal phases after childbirth may be short).</p>
<p>Exclusively Breastfeeding</p> <p>Nursing day and night, whenever your baby desires. All of the baby's nutrition comes from your breast, since you don't give it bottles, solids, or even a pacifier.</p> <p>It also means nursing at least every 2 to 3 hours during the day and at least every 4 to 5 hours at night.</p>	<p>Unchanging Day Rule Patch Rule</p> <p>The two rules listed above, discussed in the next appendix, are used until ovulation is confirmed with a thermal shift.</p> <p>Then revert back to the normal FAM rules below:</p> <p>First Five Days Rule Dry Day Rule Peak Day Rule Temperature Shift Rule</p>	<p>Cervical Fluid After your lochia diminishes at about 5 weeks after childbirth</p> <p>Temps (whichever comes first)</p> <ul style="list-style-type: none"> • when you notice a change in your BIP to wet cervical fluid or • have a bleeding episode or • your nursing decreases to less than every 3 hours during the day and less than every 4 to 5 hours at night or • you introduce solid foods <p>Cervical Position After your doctor gives you the go-ahead to resume sex—usually about 4 to 6 weeks after childbirth</p>	<p>You may want to use the Lactational Amenorrhea Method (LAM) as a guideline during the first 6 months. However, you should still check your cervical fluid to avoid any surprises! (See footnote on page 444.)</p> <p>The criteria for LAM are:</p> <ol style="list-style-type: none"> 1. Menses has not yet resumed (you can ignore bleeding before Day 56). 2. The baby is less than 6 months old. 3. You are fully breastfeeding, as defined by the first column.

Using FAM During Long Cycles and Phases of Anovulation

There is no need to read these pages if your charting reveals that you are ovulating normally. But if you aren't, or your cycles are longer than 38 days, you should go back and internalize the basic principles of [Chapters 6](#) and [11](#) before reading further. And breastfeeding women should additionally read [Appendix I](#), specifically devoted to using FAM while nursing.

No matter why you aren't ovulating, you should be aware that FAM is a more difficult method to initially learn while you are going through these menstrual transitions. I would encourage you to work with a FAM counselor during these times if you find it confusing.

The typical woman will experience about 400 periods in her lifetime. OK, kvetch and moan if you must! But remember, not every bleeding episode is preceded by ovulation, and therefore, technically, such bleeding is not necessarily menstruation. In fact, women may go months or longer without ovulating or bleeding altogether—or they may still experience anovulatory bleeding. Women who are most likely to experience anovulatory cycles are those who are:

- teenagers
- coming off the Pill
- dealing with PCOS or other hormonal conditions such as hyper- or hypo-thyroidism
- exercising strenuously or have exceedingly low body fat
- going through stress due to factors such as illness and travel
- following childbirth—whether or not breastfeeding
- premenopausal

As you can infer from its varied causes, anovulation can be a temporary phase lasting no more than a month or two, or it could last up to several years. Regardless, most women will have an anovulatory cycle every now and then. The key point to understand is that if you ovulate, you will have a period (unless, of course, you conceive), but if you bleed, it doesn't necessarily mean that you ovulated!

Of course, when a woman isn't ovulating, it would seem obvious that she isn't fertile, right? Well, yes and no. When women don't ovulate, they clearly aren't fertile. Yet ironically, anovulatory cycles, or, more generally, abnormally long cycles, can be more challenging to interpret, because the conspicuous patterns of fertility don't occur. You don't see the predictable buildup of fertile cervical fluid followed by drying up and a thermal shift. In essence, then, you must treat each day as if you are preovulatory, since ovulation *could* still occur.*

✂ YOUR BASIC INFERTILE PATTERN (BIP) WHEN NOT OVULATING

As mentioned in [Chapter 6](#), all ovulating women have a Basic Infertile Pattern, which is the type of cervical fluid that they tend to produce in the few days after their period and before the Point of Change indicates rising levels of estrogen. For some, that may be dry for a few days. For others, it may be sticky or some other non-wet quality. The important point is that *it is the same unchanging quality, day after day*. And for women who have very short cycles, they probably won't have a BIP at all, but instead may develop a wet-quality cervical fluid immediately after their period, signaling an early ovulation every cycle.

However, during *anovulatory* or abnormally long cycles, your BIP is likely to extend for weeks or even months. Again, many women who experience an extended phase of anovulation are continually dry day after day. Others may notice that instead of experiencing dry days when not ovulating, they have essentially the same type of unchanging nonwet cervical fluid day after day. Regardless, if you don't have the usual patterns of post-menstrual cervical fluid in the week or so after your period ends, your body is clearly reflecting a lack of activity in your ovaries. So such days are treated as if they were dry days, but *only* after you have clearly established your anovulatory BIP, as discussed on the next page.

✿ ESTABLISHING YOUR BASIC INFERTILE PATTERN (BIP)

In order to establish a BIP, you should abstain from intercourse *for two weeks* without the interference of semen and spermicides, or anything else that may mask the observation of cervical fluid. Once you have carefully observed it for two consecutive weeks and have charted what type of *unchanging pattern* you produce, you have established your Basic Infertile Pattern. Only then may you apply the two anovulatory rules listed in the pink boxes below.

UNCHANGING DRY DAY RULE

If your 2-week Basic Infertile Pattern (BIP) is dry or essentially the same-quality non-wet cervical fluid day after day, you are safe for unprotected intercourse the evening of every dry or unchanging sticky day.

However, if on the next day you have residual semen that masks your cervical fluid, you should note it with a question mark and not consider that day safe. In addition, women with a BIP of wet cervical fluid should not consider themselves infertile until the BIP changes.

As mentioned [here](#), a trick to eliminate the semen from your vagina following intercourse is to do SETs, or Semen Emitting Techniques. Then, if the day after intercourse, you once again experience essentially the same unchanged dryness or non-wet cervical fluid, you are safe for unprotected sex that evening.

An Example of the Unchanging Day Rule with Sticky Cervical Fluid

Birth Control Method Used																																															
Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40							
Eggwhite																																															
Creamy																																															
PERIOD, Spotting, Dry, or Sticky																																															
Fertile Phase and PEAK DAY																																															
VAGINAL SENSATION																																															

Corrie's BIP chart. Corrie abstained for two weeks so that she could determine her BIP. Once she

realized it was an unchanging sticky quality, she considered herself safe every evening of a sticky day.

Sasha's chart. Because she is a professional figure skater who is in such good shape, Sasha has virtually no body fat. The combination of the stress of competition and her low body weight have led her to stop ovulating while she is competing. So she chose to abstain for the prior two weeks before the beginning of this chart, in order to establish her Basic Infertile Pattern (BIP), which was a combination of both dry and sticky days intermittently.

She could have considered herself safe any day in which she had either dry or sticky days, but she chose to still use just dry days for unprotected intercourse. But on Day 55, her partner used a condom when she had sticky. Throughout her anovulatory months, she kept her eye out for any patches of wet cervical fluid, and abstained during those days through to 4 days beyond the last day of the patch, or PA plus 4. This Patch Rule is discussed on the next page.

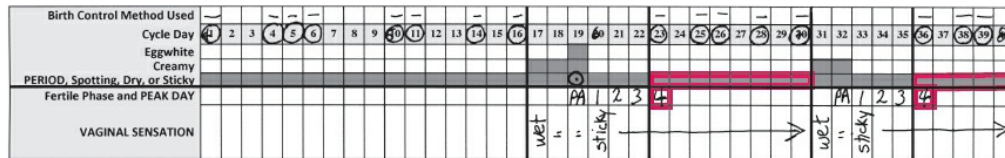
Note that on Day 64, she had eggwhite for the first time in a couple months. Had she been taking her temp, as well, a thermal shift would have helped her to know whether or not that patch ultimately led to ovulation. As it turned out, she hadn't ovulated, and was able to tell that because she didn't get a period within the next 12 to 16 days.

2) Wet Cervical Fluid

Women with a BIP of *wet* cervical fluid day after day should consider themselves potentially fertile. While this type of pattern can be frustrating, it's too risky to try to differentiate between one type of wet versus another. You may also want to get checked to rule out an infection or cervical issue. But assuming all is healthy, during these phases, you should either abstain or use barriers until you resume normal ovulation again.

Day plus 1, 2, 3, 4. So in this chart the first patch she considered fertile started on Day 54 and continued through until Peak plus 4, or the evening of Day 59. She then considered herself safe all the evenings of the dry days until her next patch on Day 67. Also note that if cycles extend beyond 40 days, you can renumber Day 1 of the chart as 41, as seen above. (Infertile evenings are boxed in red.)

An Example of the Patch Rule When Sticky



Kirsten's chart. Patch Rule with Basic Infertile Pattern of sticky days.

When Kirsten developed patches of spotting or wet cervical fluid interspersed throughout her sticky days, she considered herself fertile until she could identify the Patch Day plus 1, 2, 3, 4. So in this chart the first patch she considered fertile started on Day 57 and continued through until Patch plus 4, or the evening of Day 63. She then considered herself safe all the evenings of sticky days until her next patch on Day 71. On Day 72, she marked it as Patch plus 4, and was safe again the night of Day 76. (Infertile evenings are boxed in red.)

Spotting or Bleeding During Anovulatory Phases

As seen in the rule above, when women experience episodes of spotting or bleeding during phases of anovulation, it's imperative that they treat those particular days as potentially fertile. The bleeding could be the start of hormonal activity preparing for ovulation, or ovulatory spotting itself. Of course, the key to determining true menstruation is the observation of a thermal shift 12 to 16 days prior. But even if you're not taking your temperature during times of anovulation, you need to keep an eye out for what appears like a Peak Day (or in this case, more specifically, a patch of cervical fluid that *culminates* in a secretion such as clear, stretchy, or lubricative). For if this is followed by menstrual-like bleeding 12 to 16 days later, you can be fairly certain that the bleeding you are now experiencing is true menstruation.

In any case, deciding when to start Day 1 of a new chart can be somewhat confusing if it's not clear that what you're experiencing is true menstrual bleeding. So, you can either choose to start a new chart on Day 1 of each episode of bleeding, or you can keep the same long chart as if you are experiencing one continuous, potentially months-long cycle with intermittent phases of bleeding. The critical point is to be able to identify when the

As you read [here](#), when you are experiencing a long phase of anovulation with no thermal shifts, you must consider yourself fertile during any patches of cervical fluid through to the evening of the 4th day past the patch. However, some clinicians believe if the patch is of a *non-wet* rather than wet-quality cervical fluid, you need only wait until the evening of the 2nd nonwet day beyond your Patch Day (rather than the 4th), as seen in Louisa’s chart, below. The theory is that only two days of non-wet-quality secretions followed by dry is an indication that estrogen levels are not high enough to lead to ovulation and to change the ph of the vagina.

This approach is still considered safe, but if you absolutely can’t risk a pregnancy, you should either wait until the evening of the **4th** consecutive non-wet day beyond your Patch Day, or verify that there is no cervical fluid at your cervix before having intercourse.

Birth Control Method Used	-																																												
Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
Eggwhite																																													
Creamy																																													
PERIOD, Spotting, Dry, or Sticky																																													
Fertile Phase and PEAK DAY																																													
VAGINAL SENSATION	dry							sticky	dry																																				

Olivia’s chart. A less conservative approach.

Olivia established her BIP of dry weeks ago. So she considers herself safe the evening of all dry days. But as soon as she starts to develop *any* kind of cervical fluid, she essentially “waits and sees.” If she only has a day or two of non-wet (sticky) quality secretions, as on Days 8 & 9, she abstains during those days, but then considers herself safe once again every dry evening after those sticky days. But on Days 15–17, she notices sticky developing again, although this time, she considers herself fertile on those days and applies the Patch plus 4 rule, because there were at least 3 days in a row of sticky.

Finally, on Days 27–29, she has another patch of secretions, which in this case was two days of wet (creamy) and a day of sticky. So she applies the Patch plus 4 rule again, but this time, her last day of wet was actually Day 28, so that is the day she considers her Patch Day when starting the count of 4. Therefore she considered herself safe starting on the evening of Day 32. (Infertile evenings are boxed in red.)

The Difference Between the Peak Day and the Patch Day

The main difference between the two is the following:

1. Peak Days usually occur just before *ovulation*, and are typically the last day of clear, stretchy, or lubricative cervical fluid or vaginal sensation. (The relevant contraceptive rule is

Peak + 3, or PK + 3.)*

2. Patch Days, on the other hand, tend to occur during anovulatory cycles, and are usually the last day of the more fertile-quality patch from the unchanging BIP of cervical fluid, such as a patch of sticky amid unchanging dry days. (The relevant contraceptive rule is Patch + 4, or PA + 4.)

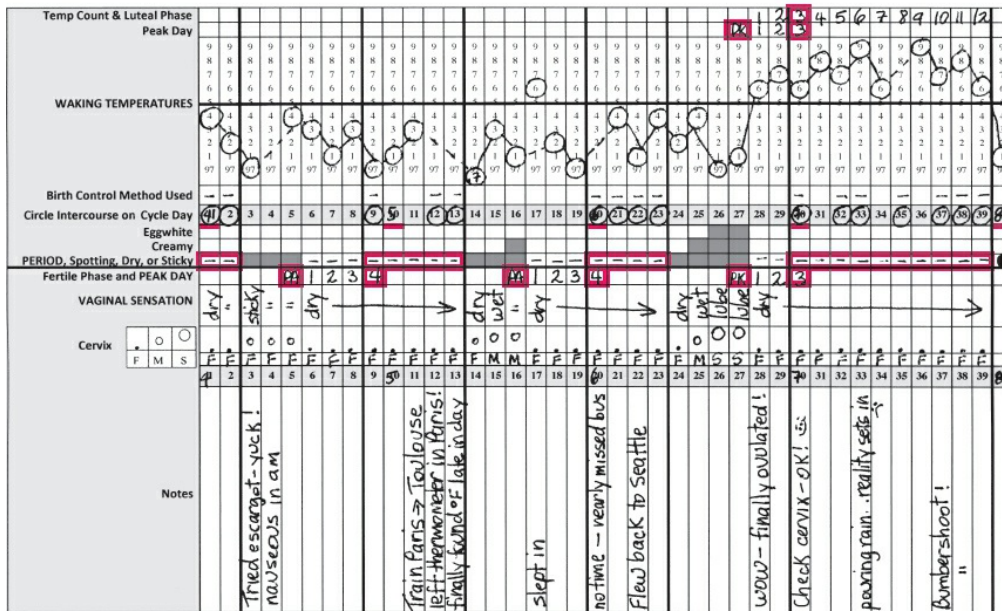
So in essence, with anovulatory cycles, you may have day after day of unchanging cervical fluid interspersed with patches as your body attempts to ovulate. Eventually one of those patches will evolve into the classic pattern of getting wetter, culminating in clear, slippery, or lubricative cervical fluid or vaginal sensation. The trick is to be on the lookout for the patch that signifies that ovulation most likely occurred.

This final patch is handled as a normal Peak Day pattern, assuming a thermal shift confirms it, as discussed in the rules in [Chapter 11](#). In other words, you are again considered safe when you reach both of these conditions:

- the evening of the 3rd consecutive day after your Peak Day
- the evening of the 3rd consecutive day your temperature is above the coverline, as long as the 3rd temp is at least .3 above.

An example of how you would record a cycle with both Patch Days and a Peak Day is seen below.

An Example of the Patch and Peak Day Rule Together



Sara's chart. Cervical fluid patches. When Sara traveled to France for the summer, her cycle was thrown off kilter, and thus she actually didn't ovulate until about Day 67 (note that this chart starts with cycle Day 41). Several times over the summer her body "prepared" to ovulate, but then stopped short, as seen by the sporadic patches of cervical fluid in the weeks leading up to her thermal shift. For these patches, she used the **Patch Day Rule**.

Finally, on days 66 and 67, she experienced eggwhite, and realized that there was a good chance that she was about to actually ovulate, which was confirmed by a thermal shift on day 68. Thus she applies the **Peak Day Rule** and considers herself safe starting the evening of the 3rd day after both her Peak Day and Thermal Shift. (Infertile evenings are boxed in red.)

A SPECIAL NOTE ON DIFFERENT SITUATIONS OF ANOVULATION

Coming off the Pill and Other Hormonal Birth Control

It can be difficult to switch from the Pill to a natural contraceptive method, since you are used to absolutely regular, albeit artificial, cycles. So naturally, it can be more challenging for you to initially chart your cycles. But once you return to normal cycles, you will be amply rewarded with the knowledge that your body is healthy and free of the chemicals that may have led to various side effects and medical risks.

In any case, when you first come off of artificial hormones, you

might notice one of three very different Basic Infertile Patterns:

- an absence of any cervical fluid at all
- continuous fertile-quality cervical fluid that may be either watery or milky
- erratic patches of varying types of cervical fluid

If you are dry day after day, great. Still, you need to be especially attentive to changes in your cycles as you eventually approach ovulation, and follow the two rules in this appendix very carefully. But if you find the other two patterns too ambiguous as your body adjusts to ovulating again, you should abstain or use barrier methods until you see an obvious thermal shift to corroborate ovulation.

Post-Childbirth (Whether or Not You Are Breastfeeding)

One of the most important points to understand regarding the transition to post-partum fertility relates to what is considered fertile-quality cervical fluid. Once your cycles return (as reflected by a thermal shift), *any* preovulatory cervical fluid is considered fertile, as it was before you became pregnant. The bottom line is that you will need to go back to the four standard rules used for normal cycles discussed in [Chapter 11](#).

Premenopause

Unfortunately, premenopausal women who follow the BIP rules could be at somewhat greater risk of pregnancy than their younger peers. So while it is true that women are definitely less fertile in their 40s, ironically, their cervical fluid can become wet more quickly. Thus, a woman who has a BIP pattern of sticky days may find herself becoming wetter faster than before, when she experienced a more gradual transition over several days. As a result, her body may progress faster toward ovulation than in earlier years. Therefore, premenopausal women may prefer to limit preovulatory intercourse to the evening of dry days only.

As mentioned above, the increased risk could be minimized if you check your cervical position. It should be firm, low, and closed

before you consider yourself safe. In addition, and as discussed in [Appendix G](#), checking your cervical fluid internally at the cervix to verify that there is no wet secretion present before having intercourse will also minimize your potentially increased risk.

When Charting Becomes More Challenging: Changes in Your BIP Signaling a Transition

If a *different* cervical fluid pattern than your first BIP evolves and becomes the same day after day for at least 2 weeks, that now becomes your *new* Basic Infertile Pattern, from which you must be on the lookout for yet another change. So, for example, if you had been dry day after day for a month or so, then developed a pattern of sticky cervical fluid that lasted at least 2 weeks, that sticky quality would become your new BIP.

You would then be considered safe all of *those* subsequent evenings of sticky until you observe a more fertile-quality patch (such as creamy), or experience spotting or bleeding. You must then treat *those* patches as possibly fertile, until you can apply the Patch Rule you learned [here](#). Are we having fun yet?

✂ CONCLUDING REMARKS ON FAM AND ANOVULATORY PHASES

The most important point to remember when experiencing anovulation is to constantly be on the lookout for a *Point of Change* in cervical fluid, since that could indicate impending ovulation. Ideally, you should continue to take your temperature to confirm that you are not ovulating. In fact, one of the benefits of taking your temps during these times is that if they are wildly erratic, that in itself is a good sign that you are not ovulatory yet. However, if you find this tedious during long months of not seeing a thermal shift, you could choose to wait until you see your cervical fluid evolve to a more fertile quality.

Either way, remember that you always have the benefit of checking your cervical position during times of ambiguity. And while these rules may appear more complex than the standard FAM rules, you may find that they are really fairly simple, especially if you have the same pattern of unchanging cervical fluid or dryness for months at a time.

In any case, you should know that you will usually have ample warning of normal cycles resuming by the buildup of patches of cervical fluid as your body tries to ovulate. And finally, while it may be confusing at times, remember that anovulatory phases will probably be a fairly small part of your reproductive life.

✂ SUMMARY OF RULES WHILE EXPERIENCING ANOVULATION

UNCHANGING DAY RULE

If your 2-week Basic Infertile Pattern (BIP) is dry or essentially the same-quality sticky cervical fluid day after day, you are safe for unprotected intercourse the evening of every dry or unchanging sticky day.

However, if on the next day you have residual semen that masks your cervical fluid, you should note it with a question mark and not consider that day safe. In addition, women with a BIP of wet cervical fluid should not consider themselves infertile until the BIP changes.

PATCH RULE

If your 2-week Basic Infertile Pattern (BIP) is dry or essentially the same-quality sticky cervical fluid day after day, you are safe for unprotected intercourse the evening of every dry or essentially unchanging non-wet day. But as soon as you see a *change* in your BIP to wet cervical fluid, vaginal sensation, or bleeding, you must consider yourself fertile until the evening of the **4th** consecutive non-wet day after your Patch Day.

The Patch Day is the *last* day of the more fertile-quality patch of cervical fluid or vaginal sensation in your Basic Infertile Pattern.

A Brief Look at Gender Selection

If they wish to have a male child let the man take the womb and vulva of a hare and have it dried and pulverized; blend it with wine and let him drink it. Let the woman do the same with the testicles of the hare and let her be with her husband at the end of her menstrual period and she will conceive a male.

—ITALIAN PHYSICIAN TROTULA, IN 1059

Fortunately, the gender selection techniques discussed in this appendix have eliminated the hare. Indeed, in the 1970s, Dr. Landrum Shettles developed a scientifically-based, fairly simple way in which to increase your chances of having a boy or girl. He wrote an informative book called *How to Choose the Sex of Your Baby* (Broadway, 2006). This appendix adapts a few of its critical points but emphasizes Fertility Awareness principles to help improve your odds. You may wish to read his work for a more thorough coverage of the topic.

While various studies have shown the Shettles method to be quite successful, I must emphasize that its overall effectiveness is still widely disputed in the medical community. I do not profess to be an expert on this subject, but I briefly discuss it here because once you know the fundamental principles of Fertility Awareness, this method of gender selection is relatively easy to apply.

Of course, even the method's most ardent supporters do not suggest it is anywhere near foolproof. Dr. Shettles himself claimed that it is about 80 to 90% effective for choosing boys, and 75 to 80% effective for choosing girls,

when the method rules are followed correctly. The reason for the lower rates for girls is that it is more difficult to appropriately time intercourse when trying for a female.

The most fundamental principle on which the Shettles method is based is that sperm determine what sex a baby will be. The male sperm (Y chromosomes) are smaller, lighter, faster, and more fragile than the female sperm (X chromosomes). The female sperm are generally bigger, heavier, slower, and heartier, and thus tend to live longer than the male sperm.* All of this means that if you desire a boy, you should time intercourse as close to ovulation as possible so that the fast, light, male sperm reach their prize first. Likewise, if you prefer a girl, you should time intercourse as far from ovulation as you can while still allowing conception to occur.

The primary evidence on which Shettles based his method is that male sperm generally beat female sperm when put through a racecourse of alkaline, fertile-quality cervical fluid in laboratory containers. Sperm retrieved from the woman's reproductive tract also confirm that male sperm are faster, but that female sperm are more resilient.

✿ INCREASING YOUR ODDS WITH FERTILITY AWARENESS

Before seeing how FAM specifically fits in with the Shettles method, you should chart at least 3 cycles before attempting gender selection in order to really know your own cycle well. If just starting to chart, it is best to either abstain or use condoms so as not to mask cervical fluid. This will help you to accurately identify its pattern while preventing a pregnancy that wasn't well-timed for the gender you desire.

One of the reasons to chart a few cycles first is to determine how many days of fertile cervical fluid you typically have. Generally speaking, most women tend to have a fairly consistent number of eggwhite days each cycle. (Those who don't produce eggwhite will usually produce some type of wet cervical fluid.) You can clearly see that the better you know your cervical fluid pattern, the more you will know how many days of eggwhite you typically have to anticipate your Peak Day. This will allow you to hopefully time sex accurately, and thus conceive the choice of the gender you both desire.

TIMING INTERCOURSE FOR A BOY

Have intercourse on your Peak Day, as well as the following day.

If you would like, you can initially have intercourse in the first part of the cycle, but only on dry days. Once you start to have any cervical fluid, you should abstain in order to minimize the risk of conceiving a girl. Then, have intercourse on what you perceive will be your Peak Day as well as the day after.

Remember that, ideally, you are trying to time sex as close to ovulation as possible. Dr. Shettles says that you should try to time intercourse for the day of ovulation itself, but, in reality, it makes more sense to time for the Peak Day, which is often the day before. This is because by the time ovulation occurs, the cervical fluid will have frequently dried up already, thus

dramatically reducing the possibility of conception for either gender. In any case, without the use of ultrasound, there is no practical way to truly know which precise day you are ovulating.

Temp Count & Luteal Phase Peak Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97
Clear Plan Pregnancy Test																								
Circle Intercourse on Cycle Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Eggwhite Creamy																								
PERIOD, Spotting, Dry, or Sticky	●	●	●	●	○	--	--																	
Fertile Phase and PEAK DAY																								

Audrey’s chart. Timing intercourse for a boy. Audrey has two daughters and decided that it would be kind of fun to try to time intercourse for a boy. She’s been charting her cycles for a couple years for birth control, and knows that she typically has about 3 days of eggwhite every cycle.

Knowing that when timing for a boy, you want to have sex as close to ovulation as possible, she chose to abstain as soon as she started getting any cervical fluid, waiting for her presumed Peak Day as well as the next day to have sex. By postponing sex until her 3rd day of eggwhite, she made sure to time intercourse as close to ovulation as possible. As you can see by the positive pregnancy test on Day 18 of her Luteal Phase, she became pregnant that cycle with a boy.

TIMING INTERCOURSE FOR A GIRL

Have intercourse several days before your Peak Day, but preferably not closer than 2 days before.

It may take a little more patience and perseverance to try to conceive a girl, because the timing is trickier. You’ll want to have intercourse far enough away from ovulation to ensure that mostly female sperm remain, but close enough to still allow a conception to occur. As with trying for a boy, the better you know your cervical fluid pattern, the more likely you’ll be able to time sex correctly.

The key is to time intercourse from 4 to 2 days before your Peak Day. What this means, practically speaking, is that you should first try 4 days before you anticipate the Peak Day. However, if that fourth day is no wetter than sticky, you should initially try the third day before. If that doesn’t work, try a day closer the following cycle. But for the first few cycles, do not have sex any closer than 2 days before you expect your Peak Day.

✂ CONCLUDING REMARKS ON USING FAM AND THE SHETTLES METHOD

The guidelines presented here may increase your odds of conceiving the gender of your choice. However, I should emphasize again that even Shettles's most ardent supporters acknowledge that they are far from foolproof. Thus, if you are someone who would be greatly disappointed by the birth of your *second* choice, you should seriously reflect on the potential outcomes before trying to conceive.

✂ A BRIEF LOOK AT THE HIGH-TECH ALTERNATIVES

Although the Shettles method of gender selection is the one that most logically complements the principles you have learned from FAM, there are at least two other high-tech methods you should be aware of. The Ericsson method of gender selection uses specialized instruments to pass sperm through a blood-protein solution, thereby separating them into groups of male and female. Proponents of this method say it has selection success rates of over 70%, and it is currently available at about 50 fertility clinics throughout the U.S.*

Finally, and as you read in [Chapter 15](#), preimplantation genetic diagnosis (PGD) has become widely used as a way of selecting those embryos for IVF that are most likely to result in healthy babies. The sex of such embryos is easily observed with PGD, and thus not surprisingly, it has become a controversial technique of highly effective gender selection. Of course, the trade-off is that it comes with the emotional, physical, and financial costs associated with all hightech fertility procedures.

How to Research Fertility Clinics

The very fact that you've read this book means that you are already well ahead of most, because you've learned how to chart your cycles. This alone will allow you to help your doctor in diagnosing and ultimately treating a potential fertility issue, but of course, if you decide to work with a specialized fertility clinic, there are still several ways you can increase the odds of choosing one that's best for you.

Get a referral

The two best ways to get a personal recommendation are from a health professional such as your primary care doctor, or from a friend or relative who has successfully used a particular clinic. They both have their advantages. Health professionals tend to know the reputation of doctors among their peers. But happy patients can often explain why they recommend a particular doctor or clinic, whether it is their bedside manner, ability to adequately convey the whole process without being brusque or patronizing, or their utilization and knowledge of the most cutting-edge techniques.

Ideally, it would be best to get a referral from a satisfied former patient, then run the name by your own clinician or other health professional who would have inside knowledge in the field. And of course, use the internet to research people's satisfaction with the clinic you are considering.

Don't fall for exaggerated statistics

One of the most frustrating aspects of researching fertility clinics is understanding the success statistics that each clinic claims. There are a myriad of reasons why a clinic may appear to be highly successful. For example, there is a huge difference between “pregnancy rates” and “take home baby rates.” The percent of women who get pregnant at any given clinic is worth knowing, but the most important stat is what percent of their patients ultimately delivered a healthy baby.

In addition, if a clinic only accepts women under 35, for example, their success rates may appear much more impressive than a clinic that is actually more cutting edge, but doesn't put an age limit on whom they accept. Given the complexity of the various factors that determine success, I would encourage you to visit the two websites below for the most reliable success rates of various clinics:

sart.org

fertilitysuccessrates.com

Learn whether the clinic profits from performing certain procedures over others

As you're likely aware, there's often an inherent conflict of interest for medical professionals who may choose to order more tests and treatments than are necessary, simply because it's more lucrative for them. Of course, I don't mean to paint a broad brush across the profession, since the majority of doctors are ethical and caring clinicians who want the best for you.

Still, you should try to determine early on how they ultimately make their money. For example, physicians in teaching facilities are often salaried, so there is no incentive to order unnecessary expensive tests or procedures. In any case, and as discussed in [Chapter 15](#), you should always discuss ahead of time which tests and procedures they are recommending, and whether their utility justifies their costs.

Trust your gut

You hear this adage all the time, and for good reason. If the answer were always emblazoned across the sky, there'd be no question. But, alas, with something as profoundly intimate as who you will ultimately trust to help you achieve your dream of having a child, your gut feeling is often your best barometer.

If every time you go to the clinic, you feel like a number, or feel that you are only given a few minutes with your doctor, or you don't understand why the clinician is ordering a particular procedure, consider finding another facility. In the end, your path to becoming a mom should be as stress-free as reasonably possible, and that starts with which clinic you ultimately choose to help you.

Fertility-Related Resources

The organizations listed below should be able to help you locate a Fertility Awareness instructor in your area. The information taught by FAM and NFP providers are similar, but you should be aware that NFP instruction often comes with a religious orientation that you may or may not appreciate, and as you'll recall, NFP prohibits barriers during the fertile phase. Regardless of whether you are trying to practice natural birth control or to get pregnant, I would encourage you to find organizations that teach the Sympto-Thermal Method as taught in this book, which involves the observation of both waking temperatures and cervical fluid.

In addition, if you have been inspired by what you have learned in this book and would like to become an instructor yourself, the organizations on the next page can refer you to certification programs. And for those of you who would like to pursue disseminating Fertility Awareness information as a career, I would encourage you to consider a degree in either nursing or public health.

COMMUNITY ORGANIZATIONS

All of those listed below may be able to point you in the right direction for FAM/NFP classes:

- Family planning clinics
- Hospital education departments
- Public health departments
- University health clinics
- Women's clinics
- Catholic churches and dioceses

✂ **FERTILITY AWARENESS METHOD (FAM) PROVIDERS**

Because there are not as many FAM instructors as there are for NFP, you might want to contact the following organizations for their lists of qualified instructors who teach classes as well as offer private office and phone consultations.*

Association of Fertility Awareness Practitioners (AFAP)

FertilityAwarenessProfessionals.org

The Association of Fertility Awareness Professionals (AFAP) supports professionals in the field of Fertility Awareness as well as those looking for high-quality, non-religious Fertility Awareness instruction. AFAP maintains a list of member educators on their website, provides information to those interested in becoming Fertility Awareness Educators themselves, and is the only international membership organization devoted to advancing the field of secular Fertility Awareness.

NATURAL FAMILY PLANNING (NFP) PROVIDERS

The following organizations have an extensive list of NFP providers, listed by type of instruction.

United States Conference of Catholic Bishops

3211 Fourth Street NE

Washington DC 20017

(202) 541-3000 usccb.org

(search “NFP providers” on their home page)

Serena Canada

151 Holland Avenue

Ottawa, Ontario K1Y 0Y2 Canada

(613) 728-6536

(888) 373-7362

serena.ca

CONTRACEPTIVE RESOURCES

Planned Parenthood Federation of America

810 Seventh Ave.

New York, NY 10019

Phone: (212) 541-7800

plannedparenthood.org

An excellent organization with local clinics throughout the United States. Covers all facets of women's health—not just contraception.

Emergency Contraceptive Hotline

Phone: 888-NOT-2-LATE (888-668-2528)

not-2-late.com

If you think you might have accidentally gotten pregnant, you can now get emergency contraception through your local pharmacist without a prescription. It consists of taking two pills 12 hours apart. They need to be taken as soon as possible after sex, and no later than 5 days after.

FERTILITY RESOURCES AND SUPPORT

RESOLVE: The National Infertility Association

7918 Jones Branch Road, Suite 300

McLean, VA 22102

Phone: (703) 556-7172

resolve.org

If you are facing fertility problems and would like to be part of an organized community dealing with similar issues, I particularly recommend contacting this wonderful organization. It has local chapters throughout the United States and provides support groups, education, and monthly meetings, among other services.

Infertility Awareness Association of Canada, Inc.

475 Dumont, Suite 201

Dorval QC H9S 5W2 Canada

(800) 263-2929

(514) 633-4494

<http://iaac.ca/en>

IAAC is a national Canadian organization, providing educational material, support, and assistance to individuals and couples.

SOME WEBSITES OF NOTE

There are countless websites devoted to FAM, NFP, fertility, and women's health issues in general. Unfortunately, web pages have a tendency to suddenly disappear, and thus I have chosen to list only a handful of the most useful ones that I think are most likely to exist well after this book has been published.

tcoyf.com

The official site of *Taking Charge of Your Fertility*.

cyclesavvy.com

The official site of the author's book for teen girls, entitled *Cycle Savvy: The Smart Teen's Guide to the Mysteries of Her Body*.

justisse.ca

A Canadian site that focuses on body literacy through FAM and holistic health care.

fertilityuk.org

An excellent British site on Fertility Awareness education.

irh.org

The Institute for Reproductive Health, which promotes natural contraceptive methods throughout the world.

womenshealth.gov

Official site of the National Women's Health Information Center.

medlineplus.gov

An extensive source of all types of medical information from the National Library of Medicine at the National Institutes of Health.

pubmed.com

A search engine for abstracts to thousands of articles in medical scholarly

journals.

mum.org

Official home of the Museum of Menstruation and Women's Health.

natural-fertility-info.com

Excellent website for learning about all facets of natural fertility treatments.

fairhavenhealth.com

One of the best websites for ordering all fertility-related supplements and products, and the site with whom I have partnered to distribute the app that accompanies this book.

Glossary

Abstinence: Avoidance of intercourse. To avoid pregnancy using Natural Family Planning (NFP), abstinence from intercourse includes avoiding all genital contact during the fertile phase of the cycle.

Adenomyosis: A condition in which the endometrial tissue penetrates the muscular walls of the tissue, causing severe menstrual cramps and heavy periods.

Adhesion: Fibrous tissue that abnormally binds organs or other body parts. It is usually the result of inflammation or abnormal healing of a surgical wound.

AI: See **Artificial insemination.**

Amenorrhea: Prolonged absence of menstruation. Causes include stress, fatigue, psychological disturbance, obesity, weight loss, anorexia nervosa, hormonal contraceptives, and medical disorders.

AMH: See **Antimullerian Hormone.**

Amniocentesis: Puncture of the fluid sac surrounding the fetus through the abdominal wall and uterus to obtain a sample of the amniotic fluid for testing. The procedure, performed around the sixteenth week of pregnancy, can be used to identify various birth defects.

Androgens: Male sex hormones, responsible for the development of male secondary sex characteristics including facial hair and a deep voice. Most androgens, including the principal one, testosterone, are produced in the testes. Small amounts of androgens are also produced in a woman's ovaries and adrenal glands.

Anovulation: The absence of ovulation.

Anovulatory bleeding: Bleeding that appears to be like a period, but is technically not because ovulation did not occur 12 to 16 days before it began. It is usually caused by a drop in estrogen that triggers the shedding of the uterine lining (estrogen withdrawal bleeding) or an excess amount of estrogen that causes so much growth in the uterine lining that it can no longer support itself (estrogen breakthrough bleeding).

Anovulatory (Anovular) cycle: A cycle in which ovulation does not occur.

Antimullerian Hormone (AMH) Test: A test for the quantity of hormone secreted by pre-antral follicles, which gives a good idea of a woman's remaining egg supply.

Antral Follicle Count: An ultrasound test done to determine the number of immature resting (antral) follicles in a woman's ovaries. The results can be used to estimate a woman's ovarian reserve, or how many years of fertility she has left before going through menopause. In addition, it can help

determine her expected response to ovarian-stimulating drugs that are used with in vitro fertilization.

A.P.L.: A natural hCG fertility drug used to stimulate the ovaries. Administered by injection.

Arousal fluid: The colorless, lubricative fluid secreted around the vaginal opening in response to sexual stimulation, in preparation for intercourse. Arousal fluid should not be confused with fertile cervical fluid, which is secreted in a cyclical pattern around ovulation.

ART: Assisted Reproductive Technologies, such as IVF and GIFT.

Artificial insemination: A procedure in which a syringe is used to insert the man's sperm just outside or inside the cervix. The sperm may be from the husband (AIH) or a donor (AID). See **IUI**.

Barrier methods of contraception: Any methods of contraception that use a physical barrier to prevent sperm from reaching the ovum, such as the condom or diaphragm.

Bartholin's glands: Two tiny glands on each side of the vaginal opening that produce a thin lubricant when a woman becomes sexually aroused.

Basal body temperature (BBT): See **Waking temperature**.

Basal body temperature method: See **BBT method**.

Basic Infertile Pattern: An unchanging pattern of cervical secretions or vaginal sensation observed after menstruation, indicating that the ovaries are inactive and that both estrogen and progesterone levels are low.

BBT: Basal body temperature. See **Waking temperature**.

BBT Method: Basal body temperature method. A type of natural birth control in which the postovulatory infertile phase of the menstrual cycle is identified exclusively by a sustained rise in basal body temperature. Because those who use this method do not chart cervical fluid, they must either abstain or use barriers during the entire preovulatory phase of the cycle.

Billings Method: A natural method of fertility control in which days of fertility are identified exclusively by observations of cervical fluid at the vaginal opening. Developed by Drs. John and Evelyn Billings.

Billings Ovulation Method: See **Billings Method**.

Bioidentical hormones: Hormones that are synthesized from chemicals extracted from plants such as soy and wild yams. They are identical in molecular structure to the progesterones and estrogens made in female bodies.

Biopsy: Removal of tissue from the body for microscopic examination and diagnosis. For example, a cone-shaped biopsy of the cervix is for diagnosis and treatment of cervical cancer.

BIP: See **Basic Infertile Pattern**.

Biphasic temperature pattern: A temperature chart that shows a pattern of relatively low temperatures in the preovulatory phase of the cycle, followed by a higher postovulatory level for about 12 to 16 days, until the next menstruation.

Blastocyst: The newly created fertilized ovum, before implantation occurs.

Blighted ovum: A pregnancy in which no fetus ever developed in the pregnancy sac.

BMI (Body Mass Index): A measure of body fat based on height and weight.

Body Mass Index: See **BMI**.

Breakthrough bleeding: Bleeding due to excessive estrogen production, which causes the endometrium to grow beyond the point that it can sustain itself. It usually occurs during

anovulatory cycles.

Calendar Rhythm Method: See **Rhythm Method**.

Centrifuge: An apparatus consisting of a component spun around a central axis to separate contained materials of different density. Used in the process of sperm washing.

Cervical crypts: Pockets in the lining of the cervix where cervical fluid is produced and that function as a temporary shelter for sperm during the woman's fertile phase.

Cervical dysplasia: The presence of abnormal cells on the surface of the cervix, which are classified as either mild, moderate, or severe. Not cancerous, but may eventually develop into cancer, so warrants attention.

Cervical ectopy: See **cervical eversion**.

Cervical ectropion: See **cervical eversion**.

Cervical erosion: A rare condition in which the cervical tissue experiences abrasion. May occur following childbirth or certain medical procedures, during sex, or from the use of an IUD.

Cervical eversion (also referred to as cervical ectopy or cervical ectropion): When the cells lining the cervical canal migrate to the outer portion of the cervix that can be seen during a speculum exam. It usually appears red and raw, but no treatment is necessary unless there are bothersome symptoms such as vaginal discharge or bleeding after intercourse. It is more common in adolescents, pregnant women, or those taking estrogen-containing contraceptives.

Cervical fluid: The secretion produced within the cervix that acts as a medium in which sperm can travel. Its presence and quality are directly related to the production of estrogen and progesterone. Analogous to a man's seminal fluid. It is one of the three primary fertility signs, along with cervical position and waking temperature. Cervical fluid typically gets progressively wetter as ovulation approaches. See **Creamy, Eggwhite-quality, Fertile-quality, and Sticky cervical fluid**.

Cervical fluid ferning test: See **Ferning test**.

Cervical mucus: See **Cervical fluid**.

Cervical os: The opening of the cervix, which itself is the lower portion of the uterus.

Cervical palpation: Feeling the cervix with your middle finger to determine its height, softness, and opening.

Cervical polyps: Typically benign teardrop-shaped growths on the surface of the cervix. May interfere with conception if they obstruct the cervical os through which the sperm travel.

Cervical position: The term used to describe one of the three primary fertility signs. In this book, cervical position refers to three facets of the cervix: its height, softness, and opening.

Cervical tip: See **Cervical os**.

Cervicitis: An inflammation of the cervix that is usually due to either cervical eversion, an STI or other infection, physical injury to the cervix, or, rarely, cancer.

Cervix: The lower portion of the uterus that projects into the vagina.

Change of life: The menopausal years during which reproductive functions cease.

Chasteberry: See **Vitex**.

Chemical Pregnancy: A type of pregnancy that results in miscarriage so early that it could be detected only through a blood or urine test.

Chlamydia: A highly prevalent sexually transmitted disease. It can lead to infertility through scarring of the fallopian tubes.

Chocolate cyst: See **Endometrioma**.

Chromotubation: A procedure typically done during a laparoscopy to determine if the fallopian tubes are open. Similar to an HSG, but the dye used can be seen only through the laparoscope.

Climacteric: A dated term referring to the years immediately before and after menopause.

Clitoris: A small knob of very sensitive erectile tissue. The female counterpart of the male penis, it is situated outside of the vagina under a hood of skin where the labia unite.

Clomid: A commonly prescribed drug used primarily to induce ovulation.

Clomiphene citrate: See **Clomid**.

Coitus: Sexual intercourse.

Colposcopy: A procedure used to examine the vagina and cervix under magnification through an instrument known as a colposcope. It is of particular value in the early detection of cancer of the cervix.

Conceive: To become pregnant.

Conception: Fusion of the sperm and egg.

Condom: A sheath of thin rubber worn over the penis to prevent conception.

Corpus luteum: The yellow gland formed by the ruptured follicle after ovulation. If the egg is fertilized, the corpus luteum continues to produce progesterone to support the early pregnancy until the placenta is formed. If fertilization does not occur, the corpus luteum degenerates within 12 to 16 days.

Corpus luteum cyst: A rare and temporary condition in which the corpus luteum doesn't disintegrate after its typical 12- to 16-day life span. It may lead women to mistakenly believe they are pregnant by delaying their periods and maintaining their high postovulatory temperatures beyond 16 days.

Coverline: A line used to help delineate pre- and postovulatory temperatures on a fertility chart.

Cowper's gland: One of a pair of small glands that secretes the lubricative pre-ejaculatory fluid in the male.

Creamy cervical fluid: The cervical-fluid quality that is generally wet and often similar to the consistency of hand lotion. It is considered fertile, although not as fertile as the eggwhite cervical fluid that usually follows it.

Creighton Model System (CrMS): A prospective and standardized means of monitoring the menstrual and fertility cycle. Involves charting only cervical fluid, but uses extremely precise descriptions to allow women to better understand their fertility and health.

Curettage: See **Dilation and curettage**.

Cycle Beads: A color-coded string of beads that was designed for women in developing countries to help track their fertile phase during their cycles. It can be used only if the woman's cycles range from 26 to 32 days. In fact, it is not any more reliable than the Rhythm Method, because it does not allow the woman to determine her day of ovulation from cycle to cycle.

Cyst: An abnormal saclike structure containing fluid or semisolid material that may be present as a lump in various parts of the body. Most cysts are benign (nonmalignant) and cause no discomfort, but some may become cancerous.

Cystadenoma: Cysts that develop from ovarian tissue that are filled with a watery substance. They are usually benign, but often painful.

Cystic breasts: Breasts that are normal but often lumpy, particularly in the post-ovulatory phase.

Cystic hyperplasia: An overgrowth of fluid-filled cysts in the uterine lining.

Cystoma: See **Cystadenoma**.

D and C: See **Dilation and curettage**.

Danazol: A synthetic hormone used to treat endometriosis.

Danocrine: See **Danazol**.

D-chiro-inositol: A naturally occurring substance that is used to treat women with PCOS since it improves the efficacy of insulin.

Dehydroepiandrosterone: See **DHEA**.

Depo-Provera: An injectable hormonal contraceptive that lasts for 3 months.

Dermoid cyst: An ovarian cyst that can actually contain hair, teeth, bone, and other growing tissues. Can become large and painful.

DHEA supplementation: DHEA is a naturally existing hormone that both men and women produce. It's essential for the production and development of healthy eggs in women. In those using IVF to get pregnant, it is primarily prescribed to treat diminished ovarian reserve (DOR), which occurs either as a consequence of premature ovarian aging (POA) or general aging.

Diaphragm: A soft rubber device that is inserted in the vagina to cover the cervix and prevent conception. Must be used with a spermicide.

Dilation and curettage (D and C): A surgical procedure used to scrape the surface of the endometrium with an instrument called a curette. Prior to curettage, the cervix is gradually opened with instruments called dilators.

Discharge: An emission from the vagina. In this book, it refers to an unhealthy symptom of an infection.

Double ovulation: The release of two separate eggs in one menstrual cycle. Both eggs are released within a 24-hour period.

Douche: A cleansing fluid flushed through the vagina. The practice is unnecessary and should be strongly discouraged since the normal vaginal environment is altered and the physiological self-cleansing mechanism is destroyed.

Dry Day Rule: One of the four natural birth control rules. Before ovulation, you are safe the evening of every dry day. But the next day is considered potentially fertile if there is residual semen masking your cervical fluid.

Dry days: Days when you observe no cervical fluid or bleeding and have a dry vaginal sensation.

DUB: See **Dysfunctional uterine bleeding**.

Dysfunctional uterine bleeding: The most common type of unusual bleeding, which has no obvious hormonal or structural cause. Still, most cases are believed to be hormonal in nature and related to anovulation.

Dysmenorrhea: Painful menstruation. Painful spasmodic contractions of the uterus usually arise just prior to or for the first few hours of menstruation and then gradually subside.

Dyspareunia: Painful or difficult intercourse.

Early ovulation: Release of the egg earlier in the cycle than usual or anticipated.

Ectopic pregnancy: The implantation and development of a fertilized ovum outside the uterus, usually in the fallopian tube.

Egg (cell): See **Ovum**.

Eggwhite-quality cervical fluid: The most fertile type of cervical fluid a woman produces. It typically resembles raw eggwhite and tends to be clear, slippery, and stretchy. It usually appears in the 2 or 3 days preceding ovulation.

Ejaculation: The release of seminal fluid from the penis during orgasm.

Embryo: The initial stages of development from the fertilized egg to around 6 weeks after conception.

Endocrinologist: A physician who specializes in the function of hormones.

Endometrial biopsy: The removal of a small part of the uterine lining (endometrium) for examination under the microscope. Used to determine whether the woman's lining is developing appropriately.

Endometrial hyperplasia: An overgrowth of the glandular components of the uterine lining.

Endometrial polyp: An overgrowth of normal endometrial tissue that may grow into the cervical canal. As with cervical polyps, may be asymptomatic or cause spotting or cramping if they push down on the cervix.

Endometrioma: Cysts that develop on the ovaries due to endometriosis. They contain old blood and thus can have a resemblance to chocolate syrup.

Endometriosis: The growth of endometrial tissue in areas other than the uterus, for example, the fallopian tubes or the ovaries. A woman may be asymptomatic, or she may have lower abdominal pain that worsens during menstruation, pain during intercourse, and unusually long menstrual periods. Hormone therapy, surgery, and pregnancy may improve the condition. Endometriosis may cause infertility.

Endometritis: An inflammation of the endometrium, or lining of the uterus, usually causing pelvic pain and a thick, unpleasant-smelling yellowish discharge.

Endometrium: The lining of the uterus, which is shed during menstruation. If conception occurs, the fertilized egg implants within it.

Epididymis: The beginning of the sperm duct where sperm are stored, matured, and transported. It is attached to the testicles.

Episiotomy: A cut made through the perineum to facilitate childbirth if the vaginal opening doesn't stretch enough to allow the baby to pass through.

Estradiol (E2): The principal type of estrogen produced by the ovaries, which stimulates follicle growth and ovulation and, along with progesterone, helps prepare the uterine lining for the implantation of a fertilized egg. It is also the form of estrogen that is responsible for the development of secondary female sex characteristics. (Often referred to as 17-beta estradiol.)

Estriol (E3): The estrogen produced by the placenta during pregnancy.

Estrogen: The hormone produced mainly in the ovaries responsible for the development of female secondary sex characteristics, as well as one of the primary hormones that control the menstrual cycle. Increasing estrogen levels in the first part of the menstrual cycle produce significant changes in the cervical fluid and cervix, indicating fertility.

Estrogen breakthrough bleeding: See **Ovulatory spotting**. Light or brown spotting leading up to the Peak Day that is the result of excess estrogen without progesterone to sustain it. It can also refer to the potentially heavy bleeding that occurs in anovulatory cycles in which the lining which has been building due to the effects of estrogen can't sustain itself, and is thus sloughed off.

Estrogenic phase: The estrogen-dominated first phase of the menstrual cycle before ovulation. Also referred to as the follicular phase or preovulatory phase.

Estrogen withdrawal bleeding: See **Ovulatory spotting**. Spotting that occurs immediately following

the Peak Day due to the drop in estrogen. In addition, it refers to the bleeding that occurs during the week that a woman is not taking the contraceptive pill.

Estrone (E1): The dominant estrogen found in postmenopausal women.

Excessive prolactin: See **Hyperprolactinemia**.

Fall-back temperature shift pattern: A type of thermal shift in which the temperature drops on or below the coverline on the second day after having already risen above it.

Fallopian tube: One of a pair of tubes connected to either side of the uterus. Sperm travel up to potentially unite with an egg in the outer third of the tube, after which the fertilized egg is transported toward the uterus through the tube.

Falloscopy: A procedure in which a fiber optic tube is used to observe the inner structure of the fallopian tubes.

False temperature rise: A temperature rise due to causes other than ovulation, such as fever, restless sleep, or drinking alcohol the night before. It is also caused by taking your temperature substantially later than usual.

Ferning test: The characteristic pattern produced by fertile cervical fluid when dried on a glass slide. So named because it resembles a fern.

Fertile phase: The days of the menstrual cycle during which sexual intercourse or insemination may result in pregnancy. It includes several days leading up to and immediately following ovulation.

Fertile-quality cervical fluid: Cervical fluid that is wet, slippery, stretchy, or resembles raw eggwhite. This type of cervical fluid appears around the time of ovulation, allowing sperm to live and travel in it for about 3 to 5 days.

Fertility: The ability to produce offspring.

Fertility Awareness Method (FAM): A means of determining your fertility through observing the three primary fertility signs: waking temperature, cervical fluid, and cervical position. Unlike Natural Family Planning, users of FAM choose whether they would like to use a barrier method or abstain during the fertile phase.

Fertility drugs: Drugs used to stimulate ovulation. The two most common are Clomid (clomiphene citrate) and Pergonal.

Fertilization: The fusion of a sperm with an egg (ovum), normally in the outer third of the fallopian tube.

Fetal age: The most accurate way of dating the age of a fetus, based on determining the date of conception, rather than the last menstrual period.

Fetus: A name for the developing embryo from 3 months after conception until birth.

Fibrocystic breast disease: A misleading term for nothing more than a common benign condition characterized by the formation of fluid-filled sacs in one or both breasts.

Fibroid: A fibrous and muscular growth of tissue in or on the wall of the uterus.

Fimbria: The end of the fallopian tube near the ovary. The fimbriae pick up the egg immediately after ovulation.

First 5 Days Rule: One of the four natural birth control rules. You are safe the first 5 days of the menstrual cycle if you had an obvious thermal shift 12 to 16 days before.

FMRI: See **Fragile X**.

Follicle: A small fluid-filled structure in the ovary that contains the egg (ovum). The follicle ruptures

the surface of the ovary, releasing the ovum at ovulation.

Follicle-stimulating hormone (FSH): The hormone produced by the pituitary gland that stimulates the ovaries to produce mature ova and the hormone estrogen.

Follicular cyst: A fluid-filled sac that forms in the ovary during the first part of a normal menstrual cycle, but then goes awry by enlarging and continuing to produce estrogen, not allowing the egg to be released. It is best resolved through a progesterone injection and not surgery.

Follicular phase: See **Preovulatory phase**.

Fragile X: A gene that has been found to play an important role in ovarian function and may be a cause of premature ovarian failure. It is also associated with various intellectual disabilities.

FSH: See **Follicle-stimulating hormone**.

G-spot: An area of spongy tissue on the upper internal vaginal wall that is an extremely sensitive erogenous zone for some women. However, its actual existence is still widely debated since it has yet to be scientifically identified as a distinct structure.

Galactorrhea: Spontaneous flow of breast milk, not associated with childbirth or nursing.

Gamete: The mature reproductive cells of the sperm and ovum.

Gamete Intra-Fallopian Transfer: See **GIFT**.

Genetic: Relating to hereditary characteristics.

Genital: Pertaining to the reproductive organs.

Genital contact: Contact between the penis and the vulva without penetration.

Genitalia (Genitals): The organs of reproduction, especially external.

Gestation: The period of development from conception to the end of pregnancy and birth.

Gestational age: The age of the fetus, based on dating the pregnancy from the first day of the last menstrual period (LMP) rather than the date of conception. The gestational age, by definition, is usually at least two weeks older than the fetus really is.

GIFT: Gamete Intra-Fallopian Transfer. A procedure in which the woman's eggs are removed from her ovaries and then placed in her fallopian tube with her partner's sperm. Unlike IVF, fertilization takes place in the fallopian tube, and not a petri dish.

Gland: Organ that produces chemical substances, including hormones.

Glucophage: See **Metformin**.

GnRH: See **Gonadotropin-Releasing Hormone**.

Gonadotropin-Releasing Hormone (GnRH): A chemical substance produced by the hypothalamus in the brain. It stimulates the pituitary gland to produce and release both FSH and LH, hormones which in turn lead to follicular development and ovulation.

Gonadotropins: The hormones produced by the pituitary gland of males and females that regulates maturation of the sperm and egg. The most important gonadotropins are FSH and LH.

Gonads: The primary sex glands of the ovaries and testes.

Gonorrhea: A highly contagious sexually transmitted disease.

Guaifenesin: An expectorant often taken to increase the fluidity of cervical fluid.

Gynecologist: A doctor who specializes in women's reproductive health.

HCG: Human chorionic gonadotropin, typically referred to as the "pregnancy hormone." It is produced by the developing embryo when it implants in the uterine lining. Its main action is to maintain the

corpus luteum and hence the secretion of estrogen and progesterone until the placenta has developed sufficiently to take over hormonal production. See **Pregnancy test**.

Hemorrhage: Excessively heavy bleeding.

Hirsutism: Excessive hairiness in areas not typically found on women, such as the face, chest, stomach, and inner thighs.

HIV: Human immuno-deficiency virus. The virus that causes AIDS.

Hormone: A chemical substance produced in one organ and carried by the blood to another organ, where it exerts its effect. An example is FSH, which is produced in the pituitary gland and travels via the blood to the ovary, where it stimulates the growth and maturation of follicles.

Hormone replacement therapy (HRT): See **Hormone therapy**.

Hormone therapy (HT): The use of manufactured hormones, particularly estrogen, to replace the perimenopausal and postmenopausal woman's diminished natural supply of hormones. Prescribed to alleviate menopausal symptoms such as vaginal dryness and hot flashes, as well as to prevent osteoporosis and possibly heart disease.

Hot flash: A feeling of heat that usually affects the face and neck and lasts a few seconds to a few minutes. It may spread over the upper part of the body and be accompanied by sweating. Most menopausal women will experience it.

HRT: See **Hormone replacement therapy**.

HSG: Hysterosalpingogram. An X-ray taken after a special dye is injected through the cervix to produce an image of the inside of the uterus and fallopian tubes. Used to determine whether the tubes are blocked or have scarring.

HT: See **Hormone therapy**.

Huhner's test: See **Postcoital test**.

Human chorionic gonadotropin: See **HCG**.

Human immuno-deficiency virus: See **HIV**.

HyCoSy (Hysterosalpingo-contrast-sonography): A procedure used to observe the inner structure of the fallopian tubes in which a small amount of fluid is injected into the uterus through the cervix.

Hymen: The typically thin membrane that protects and partially blocks the entrance of the vagina from birth. May or may not be present in girls, depending on factors such as physical trauma.

Hypermenorrhea: Heavy bleeding.

Hyperprolactinemia (excessive prolactin): A condition in which the excess production of prolactin, the hormone normally responsible for the production of breast milk, prevents normal ovulation. It can even occur in women who have never given birth.

Hypomenorrhea: Unusually light menstrual flow or spotting.

Hypothalamus: A part of the brain located just above the pituitary gland that controls several functions of the body. It produces hormones that influence the pituitary gland and regulates the development and activity of the ovaries and testes.

Hysterectomy: The surgical removal of the uterus.

Hysterosalpingo-contrast-sonography: See **HyCoSy**.

Hysterosalpingogram: See **HSG**.

Hysteroscopy: Exploratory surgery to view the uterus.

ICSI (Intra-cytoplasmic sperm injection): A procedure in which a single sperm is inserted directly

into an egg through the use of high-tech devices.

Idiopathic infertility: Infertility of unknown cause.

Implantation: The process by which the fertilized egg embeds in the uterine lining, or endometrium.

Implantation spotting: The light bleeding that sometimes occurs when a recently fertilized egg has burrowed into the uterine lining.

In vitro fertilization: See **IVF**.

Infertile phases: The phases of the cycle when pregnancy cannot occur. Women have a preovulatory and postovulatory infertile phase.

Infertile-quality cervical fluid: A thick, sticky, or opaque-quality cervical fluid that produces a vaginal sensation of dryness or stickiness. It is very difficult for sperm to survive within it.

Infertility: Inability to conceive or maintain a pregnancy, or to provide viable sperm.

Intermenstrual pain: See **Ovulatory pain**.

Intra-uterine device (IUD): A device placed in the cavity of the uterus to prevent pregnancy. Certain types release hormones while in place.

Intra-uterine insemination: See **IUI**.

IUD: See **Intra-uterine device**.

IUI: Intra-uterine insemination. A procedure in which a catheter is used to insert the man's sperm through the cervix directly into the uterus.

IVF (In vitro fertilization): A procedure in which several eggs from the woman's ovaries are fertilized with her partner's sperm in a petri dish before one or more of the resulting embryos are placed back in the woman's uterus.

Kegel exercise: An exercise to contract and relax the vaginal muscles in order to strengthen them. It is also used to help push cervical fluid and semen out of the vaginal opening.

Labia: The two sets of lips surrounding the vaginal opening, forming part of the female external genitalia.

Lactation: The production of milk by the breasts.

Lactational Amenorrhea Method (LAM): A natural method of family planning used by breastfeeding women whose periods have not yet returned. It is considered highly effective if the woman is fully or nearly fully breastfeeding and is less than 6 months postpartum.

LAM: See **Lactational Amenorrhea Method**.

Laparoscopy: A procedure in which a laparoscope, a thin telescopic instrument, is inserted through a small incision in the navel to examine the inside of the abdomen, particularly the ovaries. Often used to diagnose endometriosis.

Laparotomy: A surgical operation involving opening the abdomen.

LH: See **Luteinizing hormone**.

Libido: Sexual desire.

LMP: Abbreviation for *last menstrual period*, the first day of the last menstrual period before a pregnancy is suspected or confirmed. The most commonly used means of dating a pregnancy, even though the date of conception is more accurate.

Lochia: Bloody secretions from the uterus and vagina the first few weeks after childbirth.

LPD: See **Luteal Phase Deficiency**.

Lube: Abbreviation for “lubricative,” the slippery vaginal sensation you feel when extremely fertile.

Lubricative sensation: The slippery and wet vaginal sensation you feel, usually when fertile-quality cervical fluid is present. If you feel it when no cervical fluid is present, you are still fertile.

LUFS (Luteinized Unruptured Follicle Syndrome): See **Luteinized unruptured follicle**.

Lupron: A drug used to induce a “pseudo-menopause” to provide a clean slate for high-tech procedures, as well as to treat endometriosis and fibroids.

Luteal cyst: See **Corpus luteum cyst**.

Luteal Phase: The phase of the menstrual cycle from ovulation to the onset of the next menstruation. It typically lasts from 12 to 16 days, but rarely varies by more than a day or two within individual women.

Luteal Phase defect: See **short luteal phase**.

Luteal Phase Deficiency (LPD): A dysfunction in the production of progesterone (and to a lesser extent, estrogen) by the corpus luteum following ovulation.

Luteinized unruptured follicle: An unreleased egg that remains stuck on the interior of the ovarian wall rather than ovulating normally.

Luteinized Unruptured Follicle Syndrome: See **LUFS**.

Luteinizing hormone (LH): A hormone from the pituitary gland that is released in a surge, causing ovulation and development of the corpus luteum.

Menarche: The age at which menstruation begins.

Menopausal signs: Those signs that perimenopausal women generally experience, including hot flashes, vaginal dryness, and irregular cycles.

Menopause: The permanent cessation of ovulation, and hence menstruation. A woman is said to have gone through menopause after not having had a period for a full year.

Menorrhagia: Exceptionally heavy or prolonged bleeding during regular menstrual periods. “Gushing” or “open-faucet” bleeding is considered abnormal. Clots may be considered normal.

Menses: See **Menstruation**.

Menstrual cycle: The cyclical changes in the ovaries, cervix, and endometrium under the influence of the sex hormones. The length of the menstrual cycle is calculated from the first day of menstruation to the day before the following menstruation.

Menstrual cycle, phases of: There are three specific phases in the menstrual cycle:

1. The preovulatory infertile phase, which starts at the onset of menstruation and ends at the onset of the fertile phase.
2. The fertile phase, which includes the days before and after ovulation when intercourse may result in pregnancy.
3. The postovulatory infertile phase, which starts at the completion of the fertile phase and ends at the onset of the next menstruation.

Menstruation: The cyclical bleeding from the uterus as the endometrium is shed. True menstruation is usually preceded by ovulation 12 to 16 days earlier. Day 1 of menstruation is the first day of true red bleeding.

MESA (Microsurgical epididymal sperm aspiration): A procedure in which a man’s sperm is removed directly from his epididymis, usually in order to use in IVF.

Metformin (Glucophage): A drug that is used by women with PCOS to help treat insulin resistance.

Method failure rate: This refers to the effectiveness of a contraceptive method under ideal conditions, when always used correctly.

Metrorrhagia: Bleeding between periods.

Micromanipulation: A procedure in which a single sperm is inserted directly into the ovum through the assistance of high-tech instruments. The newly created embryo is then transferred from the petri dish to the woman's uterus.

Microsurgical epididymal sperm aspiration: See **MESA**.

Midcycle pain: See **Ovulatory pain**.

Midcycle spotting: Light bleeding between two menstrual periods. Usually occurs around the time of ovulation and is often considered a secondary fertility sign.

Mini-pill: A type of contraceptive pill that contains progesterone but no estrogen.

Miscarriage: The spontaneous loss of the embryo or fetus from the uterus.

Missed abortion: A fetus that has miscarried, or died, but has not emerged naturally.

Missed miscarriage: A pregnancy in which the embryonic tissue remains in the uterus rather than being shed in the form of a regular miscarriage.

Mittelschmerz: See **Ovulatory pain**.

Molar pregnancy: A rare condition in which a normal pregnancy goes awry, becoming a benign tumor at about 10 weeks.

Monophasic temperature pattern: A chart that does not show the biphasic pattern of low and high temperatures, indicating a probable absence of ovulation that cycle.

Mons pubis: The soft fleshy tissue beneath the pubic hair that protects the internal reproductive organs.

Mucus: See **Cervical fluid**.

Mucus Method: See **Billings Method**.

Mucus plug: The accumulation of sticky, infertile-quality cervical fluid in the cervical opening. It generally impedes the passage of sperm through the cervix.

Multiple ovulation: The release of at least two separate eggs in one menstrual cycle. Each of the eggs is released within a 24-hour period of time.

Nabothian cyst: A harmless cyst on the surface of the cervix.

Natural Family Planning (NFP): Method for planning or preventing pregnancy by observation of the naturally occurring signs and symptoms of the fertile and infertile phases of the menstrual cycle. Unlike the Fertility Awareness Method, users of NFP abstain rather than consider using contraceptive barriers during the fertile phase.

Naturopathy: A holistic medical system that avoids drugs and surgery, instead treating health conditions by utilizing what is believed to be the body's innate ability to heal. It treats people using natural therapies such as nutrition, supplements, herbal medicine, and homeopathy, and makes use of physical forces such as air, light, water, heat, and massage.

NK (Natural Killer) cell: A type of immune-system cell that is believed to play a role in many miscarriages.

Norplant: A hormonal contraceptive in which six matchstick-sized capsules are inserted just beneath the skin of the upper arm that lasts for 5 years; no longer available.

Obstetrician: A physician who specializes in pregnancy, labor, and delivery.

Oligomenorrhea: Menstrual periods that occur more than 35 days apart.

Oophorectomy: Removal of an ovary.

Opacity: In the context of FAM, the degree to which cervical fluid is opaque.

OPK: See **Ovulation predictor kits**.

Orgasm: The culmination of sexual excitement in the male or female. Ejaculation accompanies male orgasm.

Osteoporosis: A condition older women may get in which the loss of calcium and other substances leads to their bones becoming more brittle and fragile.

Ova: Plural of ovum.

Ovarian cyst: A follicle on the ovary that stops developing before ovulation, forming a fluid-filled cyst on the ovarian wall.

Ovarian drilling: A surgical procedure that is occasionally done on women with PCOS who are trying to conceive. It involves the use of a laser fiber or electrosurgical needle. The ovaries are gently punctured multiple times in order to lower the presence of male hormones.

Ovarian reserve: The quantity, and to some extent the quality or viability, of the egg supply that is left in the ovaries.

Ovarian wedge resection: A surgical procedure that is occasionally done on women with PCOS who are trying to conceive. It involves slicing a wedge out of an enlarged cystic ovary in order to reduce excess androgen production.

Ovary: One of a pair of female sex organs that produces mature ova, and in turn produces estrogen.

Ovulation: The release of a mature egg (ovum) from the ovarian follicle.

Ovulation method: See **Billings Method**.

Ovulation predictor kits (OPK): Kits that detect the impending release of an egg, usually by testing urine for the presence of LH.

Ovulatory cycle: A cycle in which ovulation occurs.

Ovulatory pain: Lower abdominal pain occurring around the time of ovulation. It is most likely caused by the irritation of the pelvic lining due to a slight amount of blood loss or from the actual breakthrough of the egg through the ovarian wall.

Ovulatory spotting: See **Estrogen withdrawal** or **Estrogen breakthrough bleeding**. The spotting that occurs as a result of the changes in estrogen levels, either just before or after ovulation.

Ovum: The mature female sex cell, or egg. Analogous to the male sperm.

Ovum transfer: A procedure in which a man's sperm is used to fertilize the egg of a donor woman. The resulting embryo is then placed in the uterus of his partner, who may even be a postmenopausal woman.

Pap smear: See **Pap test**.

Pap test: A clinical procedure in which a sample of cells is taken from the cervix in order to check for abnormal conditions such as cervical cancer.

Parlodel (Bromocriptine): A drug used to decrease the overproduction of the hormone prolactin.

Patch Rule: One of the two natural birth control rules used during phases of anovulation. It states that you are safe the evening of every day that your 2-week Basic Infertile Pattern remains the same. But as soon as you see a change in your BIP, you must consider yourself fertile until the evening of the fourth consecutive non-wet day after the Peak Day.

PC muscles: Popular term for the pubococcygeous muscles of the pelvic floor. Their function is to

support the bladder, rectum, and uterus.

PCOS: See **Polycystic Ovarian Syndrome**.

Peak Day: The last day that you produce fertile cervical fluid or have a wet vaginal sensation for any given cycle. It usually occurs either a day before you ovulate or on the day of ovulation itself.

Peak Day Rule: One of the four natural birth control rules. It states that you are safe the evening of the 3rd consecutive day after your Peak Day, as long as you also have at least three high temps above the coverline (see **Thermal Shift Rule**).

Pelvic cavity: The lower portion of the body surrounded by the hips, containing reproductive and other organs.

Pelvic Inflammatory Disease (PID): Infection involving inflammation of the internal female reproductive organs, particularly the fallopian tubes and ovaries.

Penis: The external male organ that is inserted into the vagina during intercourse.

Percutaneous epididymal sperm aspiration: See **PESA**.

Percutaneous vas deferens sperm aspiration: See **PVSA**.

Pergonal: A powerful drug used to stimulate ovulation. It often triggers the release of more than one egg.

Perimenopause: Refers to the years prior to menopause when a woman starts experiencing symptoms of impending menopause, such as irregular cycles, hot flashes, and vaginal dryness, and continues through to the first year after menopause.

Perineum: The membrane between the vulva and the anus that remarkably stretches during childbirth to allow a baby's head to emerge through the vaginal opening.

Period: See **Menstruation**.

Periodic abstinence: Various methods of family planning based on voluntarily abstaining from intercourse during the fertile phase of the cycle in order to avoid pregnancy.

PESA (Percutaneous vas deferens sperm aspiration): A procedure in which a man's sperm is removed directly from his epididymis, usually in order to use in IVF.

PGD (Premature Genetic Diagnosis): A procedure in which newly formed embryos, which are created during IVF, are examined at the cellular level. It is primarily done to screen out those with markers of various genetic diseases.

PGS (Premature Genetic Screening): A procedure in which newly formed embryos, which are created during IVF, are examined at the cellular level. It is primarily done to screen out those with an abnormal number of chromosomes and is also often used, amid considerable controversy, as a high-tech form of gender selection.

PID: See **Pelvic Inflammatory Disease**.

Pituitary gland: The master gland at the base of the brain that produces many important hormones, some of which trigger other glands into making their own hormones. The pituitary functions include hormonal control of the ovaries and testes.

PMDD (Premenstrual Dysphoric Disorder): An intense form of PMS that is often disabling, with overlapping symptoms such as anxiety, irritability, and various physical conditions such as breast tenderness and muscle ache.

PMS: A collection of physical and emotional signs and symptoms that appear during the postovulatory (luteal) phase and disappear at the onset of menstruation. Premenstrual symptoms are experienced by most women in varying degrees.

POA: See **Premature Ovarian Aging.**

POF: See **Premature Ovarian Failure.**

POI: See **Primary Ovarian Insufficiency.**

Point of Change: Refers to the point when your cervical fluid changes from a basic infertile pattern (BIP) of dry or sticky to one that includes wetter types, such as creamy or eggwhite.

Polycystic Ovarian Syndrome (PCOS): A common endocrine disorder that usually leads to irregular cycles and other hormonal problems, in which developing follicles often remain trapped inside the ovary, later becoming cysts on the internal ovarian wall. Thought to be caused by high blood insulin levels.

Polymenorrhea: Frequent bleeding, usually due to anovulation.

Polyp: A soft, fleshy, non-cancerous tumor, usually teardrop-shaped, attached to normal tissue by a stem. Often found in the cervix or endometrium.

Postcoital contraception: Emergency contraceptive measure in the form of high-dose pills or insertion of an IUD within a specified time following unprotected intercourse.

Postcoital test: The examination of cervical fluid shortly after intercourse to determine whether sperm survive in it.

Postovulatory Phase: See **Luteal Phase.**

Postpartum: Following childbirth.

Pre-ejaculatory fluid: A small amount of lubricating fluid that is emitted from the penis before ejaculation during sexual excitement. May contain sperm.

Pregnancy test: An early-morning urine sample or blood test to determine the presence of human chorionic gonadotropin (HCG), the pregnancy hormone. Blood tests tend to be more sensitive and can therefore be done earlier than a urine test.

Pregnancy wheel: A calculating device used by doctors to determine a pregnant woman's due date. It is based on the assumption that ovulation occurs on Day 14, and is therefore often inaccurate.

Pregnanediol: A metabolite (breakdown product) of progesterone, excreted in the urine.

Preimplantation genetic diagnosis: See **PGD.**

Preimplantation genetic screening: See **PGS.**

Premarin: A commonly prescribed estrogen used in hormone therapy.

Premature menopause: A dated term for Primary Ovarian Insufficiency (see this glossary), in which women stop ovulating normally, years or even decades before menopause would normally occur.

Premature Ovarian Aging (POA): A medical condition in which a woman has too few eggs relative to what is considered normal at her age.

Premature Ovarian Failure (POF): An outdated term for Primary Ovarian Insufficiency.

Premenopause: A general term for the years leading up to menopause when menstrual cycles start to vary widely.

Premenstrual Dysphoric Disorder: See **PMDD.**

Premenstrual syndrome: See **PMS.**

Preovulatory Phase: The variable-length phase of the cycle from the onset of menstruation to ovulation. See **Menstrual cycle.**

Primary Ovarian Insufficiency (POI): An endocrine disorder in which women don't produce enough

estrogen, and thus stop ovulating normally, years or even decades before menopause would normally occur.

Progesterone: A hormone produced mainly by the corpus luteum in the ovary following ovulation. It prepares the endometrium for a possible pregnancy. It is also responsible for the rise in basal body (waking) temperature, and for the change in cervical fluid in the postovulatory infertile state.

Progesterone Phase: See **Postovulatory Phase**.

Prolactin: A pituitary hormone that stimulates the production of breast milk and inhibits the ovarian production of estrogen.

Proliferative Phase: See **Preovulatory Phase**.

Prostaglandins: A group of fatty acids that is believed to be responsible for severe menstrual cramps.

Prostate gland: A gland situated at the base of the male bladder. Its nutritive secretions help make up the seminal fluid.

Puberty: The time of life in boys and girls when the reproductive organs become functional and the secondary sexual characteristics appear.

Pubococcygeous: See **PC muscles**.

PVSA (Percutaneous vas deferens sperm aspiration): A procedure in which a man's sperm is removed directly from his vas deferens, usually in order to use in IVF.

Reproductive endocrinologist: A doctor who specializes in reproductive hormones.

Rhythm Method: An unreliable method of family planning in which the fertile phase of the cycle is calculated according to the lengths of previous menstrual cycles. Because of its reliance on regular menstrual cycles and long periods of abstinence, it is neither effective nor widely accepted as a modern method of natural family planning.

Rule of Thumb: A guideline in which aberrant waking temperatures are ignored, particularly when calculating the coverline.

Scrotum: Pouch of skin containing the testes.

Secondary fertility signs: Physical and emotional changes that may provide supplementary evidence of the fertile phase. Secondary signs include *mittelschmerz* (ovulatory pain), spotting, breast tenderness, and mood changes.

Secondary infertility: When a couple is unable to get pregnant or carry a pregnancy to term after already having had a child.

Secondary sex characteristics: Features of masculinity or femininity that develop at puberty under hormonal control. In the male, this includes deepening voice in addition to the growth of beard and underarm and pubic hair. They are influenced by androgens. In the female, such characteristics include rounding of breasts, waist, and hips, as well as the growth of underarm and pubic hair. They are influenced by estrogen.

Secretory phase: See **Postovulatory Phase**.

Selective Hysterosalpingogram: A procedure in which a catheter is used to observe the internal structure of the fallopian tubes as well as clear obstructions from them.

Semen: The fluid ejaculated from the penis at orgasm. The viscous fluid contains sperm and secretions from the seminal vesicles and prostate gland.

Semen Emitting Technique (SET): The use of Kegel exercises (and tissue) in order to eliminate semen from the vagina.

Seminal fluid: See **Semen**.

Seminal vesicle: One of a pair of sacs that open into the top of the male urethra. Its secretions form part of the seminal fluid.

Seminiferous tubules: Microscopic tubes in the testes in which sperm are produced.

Serophene: See **Clomid**.

SET: See **Semen Emitting Technique**.

Sexually transmitted diseases (STDs): Any infections that are transmitted by sexual contact or intercourse. They are also referred to as sexually transmitted infections (STIs).

Sexually transmitted infections (STIs): Any infections that are transmitted by sexual contact or intercourse. Used to be referred to as sexually transmitted diseases (STDs).

Short Luteal Phase: The second phase of the cycle that in some women is deficient in progesterone, typically leading to a phase that is not long enough to allow for successful implantation. A woman usually needs a luteal phase of at least 10 days in order to sustain a pregnancy.

Slow-rise temperature shift pattern: A type of thermal shift in which temperatures rise by merely one-tenth of a degree per day over several days.

Speculum: A two-bladed stainless steel or plastic instrument used to examine the inside of the vagina and the cervix.

Sperm: The mature male sex cell analogous to the female ovum.

Sperm count: A measure of a man's fertility that calculates the total number of sperm per ejaculate as well as the percent of sperm that are both forwardly moving (motility) and of normal shape and size (morphology).

Sperm washing: The process by which the motility of the sperm is dramatically increased through mixing them in a culture media and then placing them in a centrifuge.

Spermicidal: Having sperm-destroying properties.

Spermicides: Vaginal creams, jellies, films, or sponges that can immobilize or destroy sperm.

Spinnbarkeit: Fertility-quality cervical fluid that is generally stretchy, slippery, and clear.

Spotting: Small amounts of red, pink, or brownish blood occurring during the menstrual cycle at times other than the true menstrual period.

Stair-step temperature shift pattern: A type of thermal shift in which an initial rising spurt of temperatures occurs over several days, followed by a higher pattern of temperatures usually resembling a bell curve.

Standard Days Method: A natural method of family planning that was designed for women in developing countries. Its premise is that women are fertile from Days 8 through 19 if they have cycles that range from 26 to 32 days. But it is not any more reliable than the Rhythm Method, because it does not allow the woman to determine her potentially changing day of ovulation from cycle to cycle.

STDs: See **Sexually transmitted diseases**.

Sterility: The inability of a woman to conceive, or of a man to produce functional sperm.

Sterilization: A procedure that renders an individual permanently unable to reproduce.

STIs: See **Sexually transmitted infections**.

Sticky cervical fluid: The type of cervical fluid that often has the texture of library paste or rubber cement. It is usually the first type of cervical fluid that appears in a woman's cycle following

menstruation. It is very difficult for sperm to survive in it.

Subfertility: A state of less than normal fertility.

Sympto-Thermal Method (STM): A natural method of family planning combining observation of the basal body (waking) temperature, cervical fluid, and cervical position, along with any other secondary fertility signs. The most comprehensive and effective natural method, and the one taught in this book under the name Fertility Awareness Method.

Temperature chart: A graph showing variation in daily waking temperature. See **Biphasic and Monophasic temperature pattern.**

Temperature method: See **BBT Method.**

Temperature shift: see **Thermal Shift.**

Temperature Shift Rule: One of the four natural birth control rules. It states that you are safe the evening of the third consecutive day your temperature is above the coverline.

TESA (Testicular Sperm Aspiration): A procedure using delicate microsurgical instruments in which a man with close to zero sperm count can still have what sperm he does have extracted directly from his testes in order to use in IVF.

TESE (Testicular Sperm Extraction): A procedure using a high-powered needle in which a man with close to zero sperm count can still have what sperm he does have extracted directly from his testes in order to use in IVF.

Testes: Plural of *testicle*.

Testicle: One of a pair of male sex organs that produces sperm and the male sex hormones (androgens), including testosterone.

Testicular failure: A condition in which the amount of reproductive hormones released from the pituitary is sufficient, but the testes still fail to produce any sperm.

Testicular mapping: A procedure done on men who have what appears to be zero or close to zero sperm count, using fine needle aspiration to see what areas of his testes actually are producing some sperm.

Testicular Sperm Aspiration: See **TESA.**

Testicular Sperm Extraction: See **TESE.**

Testosterone: A hormone produced by the testes, responsible for the development of male secondary sex characteristics and functioning of the male reproductive organs.

Thermal Shift: The rise in waking temperatures that divides the preovulatory low temperatures from the later, postovulatory high temperatures on a biphasic chart. It usually results in temperatures that are at least two-tenths of a degree higher than the previous 6 days.

Thermal Shift Rule: One of the four natural birth control rules. It states that you are safe the evening of the third consecutive day your temperature is above the coverline, providing that the third temperature is at least three-tenths of a degree above the coverline. If not, you must wait 4 days.

Thyroid gland: A butterfly-shaped endocrine gland in the lower part of the neck that produces thyroid hormones (including thyroxin) and regulates hormone use and balance in the body. Hyperthyroidism (an overactive thyroid) and hypothyroidism (an underactive thyroid) are thyroid disorders that can affect a woman's fertility.

TPP: See **Tubal Perfusion Pressure.**

Traditional Chinese Medicine: A holistic system of medicine combining the use of medicinal herbs, acupuncture, food therapy, massage, and therapeutic exercise. The main principle behind the

system is to determine the underlying causes of imbalance in the “yin” and “yang” which lead to disharmony in the “qi” energy in the body. Traditional Chinese Medicine addresses the whole patient, not just the ailment or disease.

Triphasic temperature shift: A temperature shift pattern that usually reflects a pregnancy. About 7 to 10 days after the first Thermal Shift, a second, more subtle shift often occurs due to the effect of the pregnancy hormone, HCG.

Tubal ligation: The surgical sterilization procedure that ties a woman’s fallopian tubes to prevent the sperm and egg from uniting.

Tubal Perfusion Pressure (TPP) measurements: A procedure in which the actual health and functioning of the fallopian tubes is analyzed by seeing how much pressure is needed to push dye through them.

Tubal pregnancy: An ectopic pregnancy in which the fertilized egg starts to implant in the fallopian tube rather than the uterus.

Tuboscopy: A thin telescope that is used to observe the inner structure of the fallopian tubes.

Two-Day Method: A form of contraception that relies on a simple algorithm to help women determine what days to avoid pregnancy. It involves observing only cervical fluid, and assumes a woman is fertile if she noticed *any* type of secretions both on that day or on the day before.

Ultrasound: A diagnostic technique that uses sound waves, rather than X-rays, to visualize internal body structures.

Unchanging Day Rule: One of the two natural birth control rules used during phases of anovulation. It states that if your 2-week Basic Infertile Pattern (BIP) is dry or the same- quality sticky cervical fluid day after day, you are safe for unprotected intercourse the evening of every dry or unchanging sticky day.

Urethra: The tube that carries urine from the bladder to the outside. The female urethra is very short, extending from the bladder to the urinary opening at the vulva. The male urethra is longer, extending along the length of the penis. It also carries the seminal fluid.

User failure rate: A measure of the effectiveness of a contraceptive method under real-life conditions.

Uterus (womb): The pear-shaped muscular organ in which the fertilized ovum implants and grows for the duration of pregnancy. Muscular contractions of the uterus push the infant out through the birth canal at the time of birth. If implantation does not occur, the uterine lining (endometrium) is shed at menstruation.

Vagina: The muscular canal extending from the cervix to the opening at the vulva. Sperm are deposited in the vagina during intercourse. It is also through this canal that the baby is delivered (birth canal).

Vaginal discharge: See **Discharge**.

Vaginal infection: An abnormal bacterial or viral growth in the vagina.

Vaginismus: A painful spasm of the vagina that prevents comfortable penetration of the penis.

Vaginitis: An inflammation of the vagina caused by an infection or other irritation.

Vanishing Twin Syndrome: A surprisingly common phenomenon in which one of two fraternal twin embryos is spontaneously miscarried or reabsorbed early in a pregnancy, resulting in a single-baby birth.

Varicocele: A varicose-type vein in a man’s scrotum that can impede his fertility by increasing the testicular temperature.

Vas deferens: One of a pair of tubes that carry the seminal fluid from the testes to the urethra.

Vasectomy: A male sterilization procedure in which each vas deferens is cut to prevent the passage of sperm.

VD: Venereal disease. See **Sexually transmitted diseases**.

Venereal disease (VD): See **Sexually transmitted diseases**.

Vestibulitis: A medical condition that causes pain and discomfort in the vaginal area.

Vitex (Vitex agnus or Chasteberry): A complex herb that is among the most widely used as a natural aid in treating hormone imbalances in women. It is thought to act on the pituitary, or master gland.

Vulva: The external female genitalia comprising the clitoris and two sets of labia.

Vulvodynia: Pain in the vulva, characterized by itching, burning, stinging, or stabbing at the opening of the vagina.

Waking temperature: The temperature of the body at rest, taken immediately upon awakening, before any activity. Often referred to as basal body temperature (BBT).

Withdrawal bleeding: Vaginal bleeding resulting from an insufficient level of estrogen to maintain the uterine lining. It usually occurs during anovulatory cycles.

Womb: See **Uterus**.

ZIFT: Zygote Intra-Fallopian Transfer. A procedure in which a woman's egg is fertilized by her partner's sperm in a petri dish. The resulting zygote is then placed back in her fallopian tube.

Zygote: The fertilized ovum. A single fertilized cell resulting from fusion of the sperm and the egg. After further cell division the zygote is known as a blastocyst, then as an embryo.

Zygote Intra-Fallopian Transfer: See **ZIFT**.

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SOME USEFUL WEBSITES FOR RESEARCH ON FERTILITY-RELATED AND OTHER MEDICAL ISSUES

Advanced Fertility Center of Chicago: advancedfertility.com

The Center for Human Reproduction: centerforhumanreprod.com

The Centers for Disease Control and Prevention: cdc.gov

Fertility Authority: fertilityauthority.com

Georgia Reproductive Specialists: ivf.com

The National Institutes of Health: nih.gov

The Turek Clinic: theturekclinic.com

UpToDate (Walters Kluwer): uptodate.com

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Annual Physical Exam
Health Practitioner

Cholesterol _____	Ratio _____	HDL _____	LDL _____	Date _____
Triglycerides _____				Cycle Day _____
CBC: Red Blood Cells _____		White Blood Cells _____		Height _____ Weight _____
Hematocrit _____		Vitamin D _____		Pulse _____
Urine Test _____		Pap test _____		Blood Pressure _____/_____/_____
Chlamydia Test (optional) _____		HPV test (optional) _____		Shots/Boosters/Vaccines _____
Other Tests _____				_____

	Status	Comments
Breast Exam		
Mammogram		
Cervix		
Uterus		
Heart		
Lungs		

Prescriptions _____

Recommendations _____

Referrals _____

Notes _____

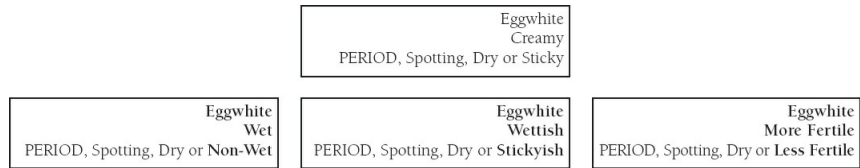
Master Chart Options

The two pages that precede this overview are the two classic master charts for Birth Control and Pregnancy. For the most part, one of these will meet your needs perfectly. Still, I would encourage you to visit TCOYF.com to skim through all eight charts that I have designed, to see if one is more appropriate for your particular situation. Their specific purpose is noted in **tiny bold print in the bottom right corner** of each chart, and include the following:

Birth Control (temps below 97)	Pregnancy (temps below 97)
Birth Control with Examples	Pregnancy with Examples
Birth Control (Internal/External)	Pregnancy with Tests and Treatments
Birth Control (Celsius)	Pregnancy (Celsius)

If you would like to observe your signs to simply keep track of your general health, you will probably want to use the classic birth control chart, since it's the most basic. Regardless, if you choose to use either of the two master charts in front of this page, enlarge them by about 125%. Then before you copy the newly enlarged one, list the various signs you would like to color code in the narrow rows at the very bottom, such as breast tenderness, headaches, or cramps.

If possible, though, I suggest you print out the chart you prefer to use directly from the website. They will be cleaner, the exact size you want, and most importantly, capable of being modified to suit your own needs, such as adding or omitting various rows or changing terminology. Below is an example of the type of terms you may prefer to use to describe the three categories of cervical fluid, all listed below the standard ones I use in the book:



If you choose to fill in your charts by hand as opposed to using the app available at the website, I recommend keeping them organized in a 3-ring binder with your most recent on top, using a plastic sheet cover after each cycle is complete.

In addition, you might want to keep 3 sheets in the inside cover of the notebook: a copy of your master fertility chart, your master annual exam form, and a color-coding key of the signs you plan to record in the narrow columns at the bottom of the master chart. Keeping all your charts in chronological order is a great way to get an overview of your reproductive health over time, and could be an invaluable resource for your doctor, if and when problems or changes arise.

Finally, every year when you have your annual exam, copy the master annual exam form onto the back of the chart in which you have your appointment. It's available [here](#) and, of course, at TCOYF.com. Happy Charting!

Professional Praise

“*Taking Charge of Your Fertility* is a fantastic book, loaded with practical and beautifully presented information that will transform and empower every woman’s relationship with her fertility. I recommend it to women of all ages.”

—Christiane Northrup, M.D., author of *Women’s Bodies*,
Women’s Wisdom and *The Wisdom of Menopause*

“This beautifully written guide to a woman’s fertility signs is packed with knowledge, wisdom, and humor—a must for the bookshelf.”

—Coauthors of *Our Bodies, Ourselves*:
A New Edition for a New Era

“With fascinating, reliable, and up-to-date explanations, Toni Weschler reveals all that we should know about our fertility and sexuality while demystifying the wondrous nature of reproduction. Her practical approach to Fertility Awareness is presented in a compassionate and empowering way. Whether you want to be pregnant or to avoid pregnancy, or simply understand female fertility better, this is the book for you.”

—Penny Simkin, PT, author of
Pregnancy, Childbirth, and the Newborn:
The Complete Guide
and *The Birth Partner: Everything You Need to Know*
to Help a Woman Through Childbirth

“This well-established book by Toni Weschler is a ‘must read’ for all infertile couples who wish to gain a basic understanding of their ovulatory cycle, how to evaluate their infertility, avoid unnecessary and expensive testing, and get right to the heart of their problem with minimal delay. This book clears up a great deal of confusion that couples may have about the optimal methods of achieving pregnancy with a conventional, non-technological approach. The illustrations are superb, and the explanations easy to follow. I highly recommend reading this book as a beginning point in treating infertility.”

—Sherman J. Silber, M.D., Director,
Infertility Center of St. Louis at St. Luke’s Hospital
and author of *How to Get Pregnant*

“*Taking Charge of Your Fertility* is an invaluable resource for women seeking to better understand

their reproductive cycles and take an active role in their own health care. It serves as a significant diagnostic tool to both evaluate fertility-related concerns and monitor ovulation treatment, and thus I highly recommend it for both clinicians and patients alike.”

—Mark Perloe, M.D.,
Medical Director, Georgia Reproductive Specialists,
Atlanta, Georgia

“Toni Weschler’s book, *Taking Charge of Your Fertility*, provides couples with the tools to do just that, empowering them with knowledge and hope at a time when they may feel out-of-control. Infertility often robs couples of a lifetime of expectations, replacing them with an increasing sense of loss. Toni helps couples reclaim control of their lives with a simple and compassionate approach to understanding their fertility. There is no other book like it on the market, and I strongly recommend that it be read by physicians and patients alike.”

—Lee R. Hickok, M.D.,
Pacific Northwest Fertility & IVF Specialists,
Seattle, Washington

Excerpts from Letters to the Author

“Yesterday I received your book, *Taking Charge of Your Fertility*. I finished it today. What an incredible book. It is so full of information that I could read it 10,000 times and pull something different out each time. Thank you for writing such an informative book.”

—Cindi Aschenbrenner
Enterprise, Oregon

“Your book is absolutely fabulous; I refer to it as my bible. As I began reading it, little lightbulbs started going on; everything finally made sense. It’s very informative and detailed. I only wish I had found it sooner. It really has changed my perception of fertility, and someday soon I know it will have changed my life. Thanks for writing such a great book.”

—Debi Avocato
Kingsland, Georgia

“I love your book, *Taking Charge of Your Fertility!* It has opened my eyes to the wonders of my body. Your work is vital to a world that is becoming less and less in tune with their bodies.”

—Denise Evarts
New York, New York

“I am 33 years old and have been married for over ten years and finally have discovered that my body doesn’t have to be a guessing game anymore! Thanks to your book!”

—Diane Carswell
Ohio

“I am writing to you out of a page of my Fertility Awareness notebook, which accompanied your book—I love it! Your book is the first one I have read that is straightforward—no bones about it! Cheers to your hard work that is reflected in these pages.”

—Heather LoVecchio Mendham,
New Jersey

“Your book is part of why I am where I am right now, a place where I trust my body, mind, and spirit. I thank you for that. . . . I recently read ‘society honors live conformers and dead trouble makers.’ I hope, for once, society will listen to an important message while the ‘prophet’ is still living!”

—Jackie Schmidt

Seattle, Washington

“Your book has made a wonderful and dramatic impact on me. I feel as if I’ve awoken from a long, deep sleep into a world of clarity and beauty! I finally understand what is happening in my own body. It is exciting and fascinating. I am now pregnant. Most importantly I am empowered! Thank you for such a wonderful gift. If I have a daughter you can be sure your book will be presented as a most treasured gift at the appropriate time. Meanwhile, any woman close to me will be hearing about your book.”

—Janet Villani-Garratt
Woodstock, New York

“The book was a godsend. I devoured it voraciously, absolutely barraging my husband with the information that I acquired about both my own body and his. I can’t thank you enough for educating me about my own reproductive system. For fourteen years I have participated in the fertility cycle and have known next to nothing about the mechanisms responsible for it. I was unappreciative to the wonder of my own body. . . . What was especially valuable about your book is that it went beyond the baseline experience of FAM. You explored the various patterns that women will practically encounter in their charting. The recognition of these variables is important so that every woman will appreciate her uniqueness and not feel she is abnormal if she does not conform to the standard. . . . I cannot contain my enthusiasm about FAM. I am in command of my own body now and I am elated. You should be incredibly proud for the service that you have done all women in the sharing of your knowledge. Thank you again for your wonderful book.”

—Jennifer Chellis Olivieri
New York, New York

“Marvelous book. . . . It is the most complete and empowering book on this subject matter I have read. Your format and coverage of this topic is exceptional. Every woman should know and understand their bodies, and you have certainly succeeded in relaying this important information. Thanks for helping us to achieve this miracle. We feel very fortunate to experience pregnancy again and credit your book with giving us the knowledge to maximize our chances.”

—Jennifer Dunn
Clearwater, Florida

“I can’t tell you how pleased I am with this book. I think that I have read it all the way through twice. . . . I would like to thank you for providing me with a renewed sense of self-esteem because I now have control over my body and don’t have to rely on anyone.”

—Kim Taylor
Platte City, Missouri

“I came across your book, *Taking Charge of Your Fertility*, several years ago and was immediately impressed by how you made the information on fertility cycles accessible through humor, anecdotes, and plain language, while still making the information current and useful. Not a physiology textbook rehash! I’ve widely recommended your book because it is one of the few women’s health books that actually gives information, not just simplified commentary.”

—Louise Smith
Fort Langley, British Columbia,
Canada

“We were absolutely blown away by your book arriving in the mail. What a thoughtful, generous, and special gift. It is a masterpiece—a book I wish I had fourteen years ago.”

—Ming Lu
Santa Monica, California

“Quite simply, your book has changed my life. I can’t thank you enough for taking the time, and making the effort required, to create such an informative work. From the moment I opened *Taking Charge of Your Fertility*, I was mesmerized. I sat in the bookstore for an hour, reading the appendixes. So many of my questions were right there on the page! So many of my concerns were addressed. I brought the book home and read it, cover to cover, in one sitting. Your gift to me through *Taking Charge of Your Fertility* has value beyond measure! Thank you again from the bottom of my heart!”

—Pamela M.
Seattle, Washington

“Your book was a GODSEND! . . . My doctors both expressed how much my charts are helping them to help me. It really surprised me that not every woman with fertility problems is doing her charts and checking her cervical fluid. I also learned a tremendous amount about fertility, the woman’s body, and also about ourselves. We are deeply grateful and appreciative for your wonderfully comprehensive and excellently written book.”

—Sacha Willsey
Bloomington, Indiana

“I wanted to write to thank you for writing your book, *Taking Charge of Your Fertility*. My friend had been trying to get pregnant for two years. After charting for only two months, she became pregnant. . . . You have helped me in more than one way, and I don’t know how to thank you enough. . . . My husband and I were trying for three years to get pregnant. I am now four months pregnant, and also I finally can feel at ease with my female reproductive organs. I wish that every woman could get a hold of your book. You have done such a great service for women by presenting this information in such a clear and compassionate manner.”

—Sharon Maitino
Chicago, Illinois

“I am so thankful that you wrote such an informative book. Your words empowered me to tell everyone I know about this book and method. I wish this book had been available when I was in college. I have gained invaluable knowledge about myself, and I am so thankful that it is available now. THANK YOU!!!”

—Wendy Baughman
Warner Robins, Georgia

About the Author

TONI WESCHLER, MPH, has a master's degree in public health and is a nationally respected women's health educator and speaker. She is also the author of *Cycle Savvy*, a book for teenage girls about their bodies. A frequent guest on television and radio shows, she lives in Seattle, Washington.

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Also by Toni Weschler

[Cycle Savvy: The Smart Teen's Guide to the Mysteries of Her Body](#)



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Ms. Weschler is available for public speaking engagements, as well as professional seminars for medical schools, hospitals, and clinics. In addition, any comments or suggestions for future editions of this book would be greatly appreciated. She can be reached at:

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* For this reason, I have created a link about FAM specifically written for medical professionals. You can find it on my website at www.tcoyf.com.

* By unplanned pregnancies, I am not referring here to the unfortunate practice of many unmarried teenage girls who engage in an intentional pattern of unprotected sex, either out of indifference to the consequences or because they actually want to have babies. This issue, the subject of intensive sociological analysis and public policy debate, is beyond the scope of this book. (Thankfully, the incidence of teen pregnancy has decreased considerably in the United States since the 1990s.)

* Question: What did the epididymis say to the seminal vesicle? Answer: There's a vas deferens between us. (Thanks to Robert Mecklosky, New York City's most beloved science teacher.)

* Years ago, evolutionary biologist Margie Profet offered an altogether different theory as to why menstrual cycles occur. She believed the key function of menstruation is to rid the body of pathogens that are carried by the sperm and introduced into the woman's reproductive organs during sex. Her theory caused considerable debate in the academic world, but she maintained her sense of humor about it. "What they told you in kindergarten is true," she once said, "boys really do have cooties."

* In the United States, about 1 out of every 35 live births produces a twin. (This figure is significantly higher than in earlier generations because of the use of fertility drugs.) One-third of the time, they are identical twins, meaning that one fertilized egg splits in two. Two-thirds of the time, they are fraternal twins, meaning that two separate eggs are released and conceived within 24 hours of each other. Identical twins tend to be rare in nature in that there is no particular hereditary component involved. The birth of fraternal twins, on the other hand, may be influenced by heredity. What appears to be passed down is the propensity to release higher levels than average of FSH, which in turn may cause more than one egg to be released. In addition, older women may be more likely to release more than one egg, since FSH tends to increase as women get older.

Studies have shown that multiple ovulation may occur as frequently as 10% of all cycles, a much higher percentage than previously thought. While it is true that only about 1% of deliveries are fraternal twins, it must be remembered that most ovulations don't result in conception. In addition, research has shown that many more fraternal twins are actually conceived than delivered, but that in the majority of cases, one of the conceptions is spontaneously miscarried or reabsorbed, resulting in a single baby. Scientists refer to this as the "vanishing twin syndrome." In any case, the fact that so many cycles may have multiple ovulations highlights the importance of the various FAM rules for avoiding pregnancy that you'll learn later.

*A FAM instructor once told me that when she first began to menstruate, she would search her menstrual pads for a blue egg that resembled a robin's egg, and would continually be disappointed when she couldn't find it.

* Women in their early 20s may have as many as four days of slippery-quality eggwhite, but by their late 30s, many have only a day or two, if any.

* In fact, a small percentage of women won't reflect biphasic temperature patterns even when ovulating. In such a case, contraceptors wouldn't be able to use waking temps as a fertility sign, but then would have to rely on cervical fluid and their cervical position to corroborate when they are safe. Regardless, any woman whose temps don't reflect a shift will probably want to initially take advantage of other means of determining ovulation, such as cervical fluid patterns (which are not as conclusive), ovulation predictor kits, blood tests, or ultrasound.

* As you will read, “cervical position” as used in this book actually refers to more than just the height of the cervix in the vagina. However, it is easier to use this one term to describe the various cervical changes that occur in the cycle, particularly given that they’re checked simultaneously, usually in a matter of seconds.

* You may have temperature patterns that make drawing the coverline above more difficult. If so, see [Appendix H](#) on Tricky Coverlines.

* It is often referred to as *vitex agnus* or chasteberry extract, and may in fact be blended into a variety of supplements.

* You can learn a lot more about how eliminating your exposure to light at night can impact your cycles by reading *The Effects of Light on the Menstrual Cycle* by Joy DeFelice, RN.

* The maximum ova viability of 2 days is calculated by assuming a 24-hour life span for each egg, the last one being released a full 24 hours after the first. In reality, this is highly unlikely in that ova probably live closer to 12 hours, and multiple ovulations probably occur closer together. And while you must count on sperm survival of 5 days, 2 to 3 is much more probable. Sperm viability of longer than 5 days has been documented, though it is extremely rare, and in any case would not affect the contraceptive principles of FAM, given that sperm without cervical fluid present will live at most a few hours.

* Unlike the other three rules in this chapter, a part of the First 5 Days Rule admittedly relies on past cycles to estimate a possibly increased risk of present fertility. However, there is a fundamental difference between this particular guideline and the Rhythm Method. The likelihood of conception occurring from intercourse on Day 5 or before is very remote, whereas the chances of ovulation varying widely from Day 10 onward is high. If anything, the principle here is to be even more conservative by adding one more buffer for women who may have a somewhat higher risk than the statistical average.

For the record, it is likely that the vast majority of women who truly conceived from sex during their period had intercourse at the end of a long menstruation, on Day 6 or after. There is also a definite possibility that what was *perceived* as sex during menses was actually sex during ovulatory spotting, which they would have realized had they been charting.

* If you are tempted to have sex before 6:00 p.m., [click here](#).

* When clinicians measure a pregnancy by its gestational age, they assume a Day 14 ovulation based on the first day of your last menstrual period. A more accurate approach is to determine the fetal age, which is measured from the day of conception, as ascertained by either the thermal shift, Peak Day, or ultrasound.

* One of the troubling realities of contemporary life is that sperm counts have plunged by about 50% since the 1930s. It's unclear what is causing this, but some theorize that it may be due to modern environmental toxins.

* It may require discipline to forego having sex on an eggwhite day, knowing that it is the most-fertile-quality cervical fluid. But the principle is to consider the combined fertility of the two of you. If his sperm count is low, it may increase your chances by ensuring that it is high enough on your last day of wetness, since that day is the closest day to ovulation. (Unfortunately, there are no studies that confirm or reject the widespread speculation that couples in which the male has a low sperm count are more likely to conceive if they have sex only every other day.)

* Thankfully the raw egg advice can now be delicately tossed and replaced with a lubricant that was designed specifically to be sperm friendly: Pre-Seed.

* As technology advances, newer tests involving saliva instead of blood are becoming more accurate. If you hate needles, ask your doctor!

† If you are trying to conceive through traditional intercourse and the one progesterone blood test mid-luteal phase reflects low levels, it may be more accurate to get a pooled progesterone test, listed on the next line of the chart.

* Although available over the counter, you should *never* take DHEA without a prescription and careful monitoring by your clinician.

* Whatever the particular ovulatory drug prescribed, you should be aware that some studies continue to suggest that there may be an increased risk of ovarian cancer if they are used for an extended period of time.

* The one exception is if the donor's sperm have been tested and are subfertile, in which case your chances of conceiving increase if the sperm are washed prior to insemination.

* There are two other types of ART that are rarely performed anymore. They are:

Zygote Intra-Fallopian Transfer (ZIFT):

In this procedure, the egg is first fertilized with the sperm in a petri dish, and the resulting zygote is returned to the open fallopian tube, after which it continues to naturally travel down to implant in the uterus. Today, it's almost never used because IVF is considered more effective.

Gamete Intra-Fallopian Transfer (GIFT):

In this procedure, the sperm and eggs are removed artificially, but then inserted back into the fallopian tube and left to fertilize on their own. It's also considered less effective than IVF and in addition, it's a more complicated procedure to actually implement. However, it's still offered as an option to those with religious or moral objections to conception taking place in a petri dish.

* If you've heard some outlandish story about how Pergonal has been harvested from the urine of postmenopausal nuns in Italy—for once, 'tis true! As we've seen, one of the paradoxical effects of menopause on a woman's body is to produce massive quantities of FSH as a way of trying to trigger the ovaries to continue to ovulate. Since FSH is needed to induce ovulation in clinically stimulated cycles such as those prepared for procedures such as artificial insemination and IVF, isn't it logical to use nuns' urine? You're probably thinking, "Why didn't I think of that? Nuns' urine. Of course." (For an even more bizarre hormonal source, [click here.](#))

* An extremely effective but controversial use of PGS is for gender selection, as briefly discussed in [Appendix K](#).

* This is especially well advised since until recently, it was assumed this liquid contained little if any urine. But a recent study in the *Journal of Sexual Medicine* suggests otherwise! See Salama, Samuel, et al. “Nature and Origin of ‘Squirting’ in Female Sexuality,” *J. Sex Med* 2015, 12:661–666.

* Adapted from *Beyond Putting the Toilet Seat Down* by Jack York and Brian Krueger.

* To be fair, the results of “Mood and the Menstrual Cycle: A Review of Prospective Data Studies,” *Gender Studies* 9 (5) (2012): 361–84 was widely misreported in the media to suggest that the study was claiming that PMS itself does not exist, when the real focus was in fact on mood swings. The study does not touch on the physical symptoms associated with this condition.

* This chart is adapted from Dr. Vliet's comprehensive book *Screaming to Be Heard: Hormone Connections Women Suspect and Doctors Still Ignore* (2001).

* Hormone therapy was formerly called hormone replacement therapy, or HRT.

* In fact, that's how Premarin got its name: Pre mar in (pregnant) (mare's) (urine). Regardless, the use of the words "natural" and "synthetic" can be misleading. "Natural" substances like Premarin are hardly naturally occurring in women, whereas some "synthetic" hormones created in a laboratory, such as 17-beta estradiol, are bioidentical to the compound found in the human body.

* It's important to note that FAM had been gaining increasing credibility due to the work of many people both within the United States and abroad. In this brief epilogue, though, it's not really feasible to write a thorough history of all of its "great founders." Nevertheless, I would like to briefly acknowledge the groundbreaking role of Australian doctors John and Evelyn Billings, whose development of the Billings ovulation method in the 1960s was perhaps the most critical factor in later popularizing the idea that a woman's body did indeed produce useful and reliable fertility signs.

* Many of the issues discussed in this appendix have potential solutions that I would encourage you to explore in Marilyn Shannon's *Fertility, Cycles, and Nutrition*.

* For a more thorough discussion of thyroid conditions, see any one of the following books: *The Thyroid Solution* by Dr. Ridha Arem (2000), *The Thyroid Hormone Breakthrough* by Mary Shomon (2006), or *Why Do I Still Have Thyroid Symptoms When My Labs Are Normal?* by Datis Kharrazian (2010).

* Even the mean average cycle length among fertile women is believed to be 29.5 days, and not 28. This is based on what is thought to be the most extensive study ever done on this topic, by Dr. Rudi F. Vollman, a Swiss gynecologist whose name is synonymous with research in this field.

* “Method effectiveness rates,” as opposed to “failure rates,” are expressed as a positive number showing how many sexually active women would not become pregnant over the course of a year were the method in question used perfectly (correctly, every time). Thus, if a diaphragm manufacturer claims a method effectiveness of 94%, it is another way of saying that over the course of that year, 6% of women using that method are likely to get pregnant, assuming they use it perfectly. It should be noted that while manufacturers certainly prefer to express the positive (94% effective), rather than the negative (6% failure), it is more accurate to discuss contraceptive statistics in terms of failure rates rather than efficacy rates. This is because in the real world, a 6% failure rate does not actually translate into a 94% success rate. Why? Because only about 85% of sexually active women of reproductive age would get pregnant over the course of a year even if they used no method at all. Also, given that women are fertile only a few days per cycle, it is clear that barrier method effectiveness rates will always be overstated. So in this discussion, I will use the more statistically accurate failure rates.

* These data refer specifically to the Sympto-Thermal method, the technical name given for the natural birth control rules detailed in [Chapter 11](#). It involves observing both waking temperature and cervical fluid as well as the option of observing cervical position. Generally, other methods of natural birth control only observe waking temperature *or* cervical fluid. And the Rhythm Method (often referred to as the Calendar Method) doesn't involve observing any fertility signs.

* One major study in the *American Journal of Obstetrics and Gynecology* (October 15, 1981, p.) reported without irony that “Couples who stated that they had used the fertile phase of the cycle in an attempt to achieve pregnancy accounted for 9.8% . . . of pregnancies. Since these couples did not give advance notification of their desires to attempt pregnancy, these . . . were attributed to the respective method.” (!) It’s also clear that a significant percent of the other failures, while not trying to get pregnant, were quite happy to take chances during the fertile phase. In fact, this particular article, although quite old, is actually a good and fairly representative example of the numerous studies cited in the medical and scientific journals since then. In this particular report, over a hundred women representing more than 1,600 total cycles of sexual exposure were monitored for contraceptive failure rates in use of the Sympto-Thermal method used in this book. Perhaps the most interesting result reported was that the authors concluded after intensive follow-up interviews that there were no method failures whatsoever!

* There are two exceptions: the first is if you never have dry days after your period, as discussed [here](#). The second is if you have abstained for two weeks to establish your basic infertile pattern (BIP) and have determined that it is the same unchanging non-wet quality, day after day. If so, those days would be treated as if you were dry, as discussed in [Appendix J](#).

* In fact, family planning experts from around the world have determined that there is only a 2% chance of ovulating if you meet the three criteria of the Lactational Amenorrhea Method, or LAM, listed below. (Lactation pertains to the production of milk, and amenorrhea is a lack of menstruation.)

- your menses have not returned
- you are fully or nearly fully breastfeeding
- your baby is less than 6 months old

However, the reason I've included LAM only as a footnote under Exclusive Breastfeeding is the fact that the results of their studies were based primarily on women in developing countries, where the type of breastfeeding practiced is typically very different from that of Western societies such as ours. For example, their babies are often continually carried on a sling or a snugly, reaping the ovulation-suppressing benefits of frequent sips at the breast around-the-clock.

In addition, the babies usually sleep with their mothers, guaranteeing more opportunities for suckling. Of course, this form of breastfeeding excludes scheduled feeds, supplements, pacifiers, bottles, and even pumped milk.

For obvious reasons, few women in industrialized cultures are able to successfully sustain this form of constant togetherness with their babies. Therefore, they usually can't rely on simply breastfeeding alone as an effective method of birth control.

* While this appendix addresses birth control during phases of anovulation, it should also be used by women with abnormally long cycles, because they share the same issues. The underlying causes of both anovulation and long cycles, and how you deal with them for contraception, remain basically the same.

* Women who have given birth vaginally will have a cervical os (opening) that never closes completely. Instead, it tends to feel like a slightly open horizontal slit. Regardless, new mothers should not be checking their cervix for at least two months or so following childbirth.

* Of course, Peak + 3 applies to women who have also identified a thermal shift to corroborate the Peak Day. If they are only checking cervical fluid, the rule is Peak + 4.

* For simplicity's sake, for the remainder of this appendix, I will refer to sperm carrying the male Y chromosome as "male sperm," and sperm carrying the female X chromosome as "female sperm."

* Obviously, if you have any problems with infertility, it is probably not worth following the guidelines for having a girl.

* Another well-known method of sperm separation, Microsort, was denied FDA approval, and as of this writing is no longer available in the U.S.

* NFP certification programs are much more common than those for FAM because they are usually funded by the Catholic Church.