## **Chapter 1**

## From Here to Maternity

### In This Chapter

- Checking out your health and family history
- Preparing your body for pregnancy
- Making it happen: Conception made easy

ongratulations! If you're already pregnant, you're about to embark upon one of the most exciting adventures of your life. The next year or so is going to be filled with tremendous changes and (we hope) unbelievable happiness. If you're thinking about getting pregnant, you're probably excited at the prospect and also a little nervous at the same time.

And if your pregnancy is still in the planning stages, check out this chapter to find out what you can do to get ready for pregnancy — first by visiting your practitioner and going over your family and personal health history. Then you can discover whether you're in optimal shape to get pregnant, or if you need to take some time to gain or lose weight, improve your diet, quit smoking, or discontinue medications that could be harmful to your pregnancy. We also give you some basic advice about the easiest way to conceive, and we touch on the topic of infertility.

## Getting Ready to Get Pregnant: The Preconceptional Visit

By the time you miss your period and discover you're pregnant, the embryo, now two weeks old or more, is already undergoing dramatic changes. Believe it or not, when the embryo is only two to three weeks old, it has already developed the beginnings of its heart and brain. Because your general health and nutrition can influence the growth of those organs, having your body ready for pregnancy before you get pregnant really pays off. Schedule what's called a *preconceptional visit* with your practitioner to be sure your body is tuned up and ready to go.

Sometimes you can schedule this visit during a routine gynecological appointment: When you go in for your annual PAP test, mention that you're thinking about having a baby, and your practitioner will take you through the preliminaries. If you aren't due for your annual exam for several more months and you're ready to begin trying to get pregnant now, go ahead and schedule a preconceptional visit with your practitioner, and bring along the father-to-be, if at all possible, so both of you can provide health histories — and know what to expect from this adventure.



If you're already pregnant and didn't have a preconceptional visit, don't worry, because your practitioner will go over these topics at your first prenatal visit, which we discuss in Chapter 5.

### Taking a look at your history

The preconceptional visit is a chance for your practitioner to identify areas of concern so he or she can keep you and your baby healthy — even before you get pregnant. A multitude of factors come into play, and the practitioner is likely to ask you about the following:

- ✓ Previous pregnancies and gynecologic history: Information about previous pregnancies can help your practitioner decide how best to manage your future pregnancies. He or she will ask you to describe any prior pregnancies, any miscarriages or premature births, multiple births any situations that can happen again. For example, knowing whether you had problems in the past, like pre-term labor or high blood pressure, is helpful for the practitioner. Your gynecologic history is equally important because information like prior surgery on your uterus or cervix or a history of irregular periods also may influence your pregnancy.
- ✓ Your family history: Reviewing your family's medical history alerts your practitioner to conditions that may complicate your pregnancy or be passed on to the developing baby. You want to discuss your family history because you can take steps before you conceive to decrease the chance that certain disorders, such as having a family history of neural tube defects (spina bifida, for example), will affect *your* pregnancy (see the sidebar "Why the sudden hype on folic acid?" later in this chapter). In Chapter 8, we discuss in more detail different genetic conditions and ways of testing for them.



For those of you considering the use of donor eggs or sperm, keep in mind that the donor's genetic history is just as important as any other biological parent's. Find out as much as you can.

✓ **Looking at your ethnic roots:** Your preconceptional visit involves questions about your parents' and grandparents' ancestry — not because your practitioner is nosy, but because some inheritable problems are concentrated in certain populations. Again, the advantage of finding out about these problems before you get pregnant is that if you and your partner are at risk for one of these problems, you have more time to become informed and to check out all your options (see Chapter 5).

### Evaluating your current health

Most women contemplating pregnancy are perfectly healthy and don't have problems that can have an impact on pregnancy. Still, a preconceptional visit is very useful because it's a time to make a game plan and to find out more about how to optimize your chances of having a healthy and uncomplicated pregnancy. You can discover how to reach your ideal body weight and how to start on a good exercise program, and you can begin to take prenatal vitamins with folic acid.

Some women, however, do have medical disorders that can affect the pregnancy. Expect your practitioner to ask whether you have any one of a list of conditions. For example, if you have diabetes, stabilizing your blood sugar levels before you get pregnant and watching those levels during your pregnancy are important. If you're prone to high blood pressure (hypertension), your doctor will want to control it before you get pregnant, because controlling hypertension can be time-consuming and can involve changing medications more than once. If you have other problems — epilepsy, for example — checking your medications and controlling your condition are important. For a condition like *systemic lupus erythematosus* (SLE), your practitioner may encourage you to try to become pregnant at a time when you're having very few symptoms.

You can expect questions about whether you smoke, indulge in more than a drink or two a day, or use any recreational/illicit drugs. Your practitioner isn't interrogating you and is unlikely to chastise you, so be comfortable answering honestly. These habits can be harmful to a pregnancy, and dropping them before you get pregnant is best. Your practitioner can advise you on ways to do so or refer you to help or support groups.

You also need to discuss any prescription or over-the-counter drugs you take regularly and your diet and exercise routines. Do you take vitamins? Do you diet frequently? Are you a vegetarian? Do you work out regularly? Discuss all these issues with your practitioner.

If you haven't had a recent physical exam or PAP smear, your practitioner will probably recommend that you have it done during this preconceptional visit.



### Why the sudden hype on folic acid?

Folic acid was something your mother never thought about when she was expecting you. But within the past decade, folic acid has become a nutritional requirement for all pregnant women. The change came in 1991, when a British medical study demonstrated that folic acid (also known as folate, a nutrient in the B vitamin family) reduced the recurrence of birth defects of the brain and spinal cord (also called neural tube defects). This reduction occurred in cases where a mother's previous child was affected by as much as 80 percent. Subsequent studies have shown that even among women who have never had children with brain or spinal cord defects, those who consume enough folic acid can lower their baby's risk of spina bifida (a spinal defect) and anencephaly (a brain and skull defect) by 50 to 70 percent.

Today, all women who are considering pregnancy are advised to consume 0.4 milligrams of folate every day, starting at least 30 days before conception. You start early so that plenty of the nutrient is in your system at the time the neural tube is forming. If spina bifida, anencephaly, or similar conditions run in your family — especially if you ever carried a child with these problems — you should get ten times the usual amount (4 whole milligrams) every day.

Since 1996, the U.S. Food and Drug Administration has required that all "enriched" grains — flour, cornmeal, pasta, and rice — be fortified with folic acid. Other good sources include green leafy vegetables, beans, and liver. But to make sure you get the full measure, take a supplement. Any good prenatal vitamin gives you at least 0.4 milligrams.

## Answering Commonly Asked Questions

Your preconceptional visit is also a time for you to ask your practitioner questions. In this section, we answer the most common questions — about body weight, medications, vaccinations, and quitting birth control.

### Getting to your ideal body weight

The last thing most women need is another reason to be concerned about weight control. But this point is important: Pregnancy goes most smoothly for women who aren't too heavy or too thin. Overweight women stand a higher-than-normal risk of developing diabetes or high blood pressure during pregnancy, and they're more likely to end up delivering their babies via cesarean section. Underweight women risk having too-small (low birthweight) babies.



Try to reach a healthy, normal weight *before* you get pregnant. Trying to lose weight after you conceive isn't advisable, even if you're overweight. And if you're underweight to begin with, catching up on pounds when the baby is growing may be difficult. (Read more about your ideal weight and weight gain in Chapter 4.)

### Reviewing your medications

Many medicines — both over-the-counter and prescription — are safe to take during pregnancy. But a few medications can cause problems for the baby's development. So let your doctor know about all the medications you take. If one of them is problematic, you can probably switch to something safer. Keep in mind that adjusting dosages and checking for side effects may take time.

Exposure to the following drugs and chemicals is considered to be safe during pregnancy:

- Acetaminophen
- Acyclovir
- ✓ Antiemetics (for example, phenothiazines and trimethobenzamide)
- ✓ Antihistamines (for example, doxylamine)
- ✓ Aspartame (brand names Nutrasweet and Equal)
- Low-dose aspirin
- Minor tranquilizers (for example, meprobamate, chlordiazepoxide, and fluoxetine)
- Penicillin, cephalexin, trimethoprim-sulfamethoxazole, erythromycin, and several other antibiotics
- ✓ Zidovudine

The following are some of the common medications that women ask about before they get pregnant:

✓ Birth control pills: Women sometimes get pregnant while they're on the Pill (because they missed or were late taking a couple of pills during the month) and then worry that their babies will have birth defects. But oral contraceptives haven't been shown to have any ill effects on a baby. Two to three percent of *all* babies are born with birth defects, and babies born to women on oral contraceptives are at no higher risk.

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- ✓ Ibuprofen (Motrin, Advil): Occasional use of these and other nonsteroidal anti-inflammatory agents during pregnancy (for pain or inflammation) is okay and hasn't been associated with problems in infants. However, avoid chronic or persistent use of these medications during pregnancy (especially during the last trimester), because they have the potential to affect platelet function and blood vessels in the baby's circulatory system.
- ✓ Vitamin A: This vitamin and some of its derivatives can cause miscarriage or serious birth defects if too much is present in your bloodstream when you get pregnant. The situation is complicated by the fact that vitamin A can remain in your body for several months after you consume it. Discontinuing any drugs that contain vitamin A derivatives the most common is the anti-acne drug Accutane at least one month before trying to conceive is important. Scientists don't know whether topical creams containing vitamin A derivatives anti-aging creams like Retin A and Renova, for example are as problematic as drugs that you swallow, so consult your physician about them.

Some women take supplements of vitamin A, because they're vegetarians and don't get enough from their diet or because they suffer from vitamin A deficiency. The maximum safe dose during pregnancy is 5,000 international units (IU) daily. (You need to take twice that amount to reach the danger zone.) Multiple vitamins, including prenatal vitamins, typically contain 5,000 IU of vitamin A or less. Check the label on your vitamin bottle to be sure.

If you're worried that your prenatal vitamin plus your diet will put you into that "danger zone" of 10,000 IU per day, rest assured that it would be extremely difficult to get that much vitamin A in your diet.

- ✓ Blood thinners: Women who are prone to developing blood clots or who have artificial heart valves need to take blood-thinning agents every day. One type of blood thinner, coumadin, or its derivatives can trigger miscarriage, impair the baby's growth, or cause the baby to develop bleeding problems or structural abnormalities if taken during pregnancy. Women who take this medicine and are thinking of getting pregnant should switch to a different blood thinner. Ask your practitioner for more information.
- ✓ Drugs for high blood pressure: Many of these medications are considered safe to take during pregnancy. However, because a few can be problematic, you should discuss any medications to treat high blood pressure with your doctor (see Chapter 16).
- ✓ **Antiseizure drugs:** Some of the medicines used to prevent epileptic seizures are safer than others for use during pregnancy. If you're taking any of these drugs, discuss them with your doctor. Don't simply stop taking any antiseizure medicine, because seizures may be worse for you and the baby than the medications themselves (see Chapter 16).



- ✓ Tetracycline: If you take this antibiotic during the last several months of pregnancy, it may, much later on, cause your baby's teeth to be yellow.
- Antidepressants: Many antidepressants (like Prozac) have been studied extensively and are considered perfectly safe during pregnancy. If you are taking an antidepressant and planning to conceive, you should ask your doctor whether you will be able to keep taking the medication while you're pregnant.

### Considering nutraceuticals

Many women choose to treat common ailments with over-the-counter plant extracts or other natural medications. Some are considered completely safe during pregnancy, but keep in mind that, because they are considered nutritional supplements, these agents are not regulated by the FDA. Despite the fact that many pregnant women use these supplements, very few studies have evaluated their safety during pregnancy. St John's wort, for instance, is an herb commonly used to treat depression, sleep disorders, and viral infections. Not only can this herb interact with other medications, but also its safety during pregnancy has not been studied, so use it with caution.



Some herbal medications should not be used during pregnancy because they can cause uterine contractions or even miscarriage. A short list of agents that are not recommended during pregnancy includes mugwort, blue cohosh, tansy, black cohosh, Scotch broom, goldenseal, juniper berry, pennyroyal oil, rue, mistletoe, and chaste berry.

# Recognizing the importance of vaccinations and immunity

People are immune to all kinds of infections, either because they have suffered through the disease (most of us are immune to chickenpox, for example, because we had it when we were kids, causing our immune systems to make antibodies to the chickenpox virus) or because they have been vaccinated (that is, given a shot of something that causes your body to develop antibodies).

Rubella is a common example. Your practitioner checks to see whether you're immune to *rubella* (also known as *German measles*) by drawing a sample of blood and checking to see that it contains antibodies to the rubella virus. (*Antibodies* are immune system agents that protect you against infections.) If you are not immune to rubella, your practitioner is likely to

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recommend that you be vaccinated against rubella at least three months *before* becoming pregnant. Getting pregnant before the three months are over is highly unlikely to be a problem. No cases have been reported of babies born with problems due to the mother having received the rubella vaccine in early pregnancy. Many vaccines, including the flu vaccine, are safe to have even while you're pregnant. See Table 1-1 for information on several vaccines.

Most people are immune to measles, mumps, poliomyelitis, and diphtheria, and your practitioner is unlikely to check your immunity to all these illnesses. Besides, these illnesses aren't usually associated with significant adverse effects for the baby. Chickenpox, on the other hand, does carry a small risk that the baby can contract the infection from her mother. If you know that you have never had chickenpox, let your practitioner know to discuss possible vaccination before you get pregnant.

Finally, if you're at risk of HIV infection, get tested before contemplating pregnancy. Some states now require that doctors discuss and offer HIV testing to *all* pregnant women. If you have contracted HIV, taking certain medications throughout pregnancy will decrease the chances that your baby also will contract HIV.

Table 1-1	Safe and Unsafe Vaccines during Pregnancy		
Disease	Risk of Vaccine to Baby during Pregnancy?	Immunization	Comments
Cholera	None confirmed	Same as in nonpregnant women	
Hepatitis B	None confirmed	OK	Used with immunoglob- ulins for acute expo- sure, newborns need vaccine
Influenza	None confirmed	OK	
Measles	None confirmed	N0	Vaccinate postpartum
Mumps	None confirmed	N0	Vaccinate postpartum
Plague	None confirmed	Selected vaccination if exposed	
Pneumococcus	None confirmed	OK, same as in nonpregnant women	

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Disease	Risk of Vaccine to Baby during Pregnancy?	Immunization	Comments
Poliomyelitis	None confirmed	Only if exposed	Get if traveling to endemic area
Rubella	None confirmed	NO	Vaccinate postpartum
Rabies	Unknown	Indication same as for nonpregnant woman	Consider each case separately
Smallpox	Possible miscarriage	NO	Unless emergency situation arises or fetal infection
Tetanus	None confirmed	OK if no primary diphtheria series given or no booster in past 10 years	
Typhoid	None confirmed	Only for close, continued exposure or travel to endemic area	
Varicella (chickenpox)	None confirmed	Immunoglobulins recommended in exposednonimmune women and should be given to newborn if around time of delivery. Vaccine recently available but little information concerning pregnancy.	
Yellow fever	Unknown	NO	Unless exposure is unavoidable

## Quitting birth control

How soon can you get pregnant after you stop using birth control? It depends on what kind of birth control you use. The barrier methods — such as condoms, diaphragms, and spermicides — work only as long as you use them; as soon as you stop, you're fertile. Hormone-based medicines — including the

Pill, Depo-Provera, NuvaRing, and the birth control patch (for example, Ortho-Evra) — take longer to "get out of your system." You may ovulate very shortly after stopping the Pill (weeks or days, even). On the other hand, it can take three months to one year to resume regular ovulatory cycles after stopping Depo-Provera.

We know of no hard-and-fast rules about how long you should wait after stopping birth control before you start trying to conceive. In fact, you can start to try to conceive right away. If you're Fertile Myrtle, you may get pregnant on the first try. But keep in mind that if you haven't resumed regular cycles, you may not be ovulating each month, and it may be more difficult to time your intercourse to achieve conception. (At least you can have a good time trying!) If you get pregnant while your cycles are irregular, it also may be harder to tell exactly what day you conceived and, therefore, to know your due date.

If you use an intrauterine device (IUD), you can get pregnant as soon as you have it removed. Sometimes a woman conceives with her IUD in place. If this happens to you, your practitioner may choose to remove the device, if possible, because getting pregnant with your IUD in place puts you at risk of miscarriage, *ectopic pregnancy* (a pregnancy that gets stuck in the fallopian tube), or early delivery.



Getting pregnant with an IUD in place doesn't put the baby at increased risk of birth defects.

## Introducing Sperm to Egg: Timing is Everything

This book's title notwithstanding, we're going to assume that you know the basics of how to get pregnant. What many people don't know, though, is how to make the process most efficient, so that you give yourself the best chance of getting pregnant as soon as you want to. To do that, you need to think a little about *ovulation* — the releasing of an egg from your ovary — which happens once each cycle (usually once per month).

After leaving the ovary, the egg spends a couple of days gliding down the fallopian tube, until it reaches the uterus (also known as the *womb*) (see Figure 1-1. Most often, pregnancy occurs when the egg is fertilized within 24 hours from its release from the ovary, during its passage through the tube, and the budding embryo then implants in the uterus's lining. In order to get pregnant, your job (yours and the father-to-be's) is to get the sperm to meet up with the egg as soon as possible (ideally, within 12 to 24 hours) after ovulation.

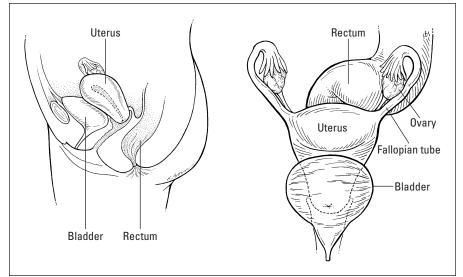


Figure 1-1:
An overview of
the female
reproductive
system.

The absolute prime time to have sex is 12 hours prior to ovulation. Then the sperm are in place as soon as the egg comes out. Sperm are thought to live inside a woman's body for 24 to 48 hours, although some have been known to fertilize eggs when they are as much as seven days old. No couple should count on getting pregnant on the first try. On average, you have a 15 to 25 percent chance each month. Roughly half of all couples trying to get pregnant conceive within four months. By six months, three-fourths of them make it, by a year, 85 percent do, and by two years, the success rate is up to 93 percent. If you've been trying unsuccessfully to conceive for a year or more, a fertility evaluation is warranted.

### Pinpointing ovulation

So when does ovulation happen? Typically, about 14 days before you get your period — which, if your menstrual cycles are 28 days long, is 14 days after the first day of your previous period. If you have a 32-day cycle, you probably ovulate on about the 18th day of your cycle. (Each cycle begins on the first day of a period.) To make sure that you get the sperm in the right place at the right time, have sex several times around the time of ovulation, starting five days before you expect to ovulate and continuing for two to three days afterward. How often? Once every two days is probably adequate, but why resist having sex every day if your partner has a normal sperm count?

### Knowing when to see a doctor about infertility

Infertility is a problem that is affecting more couples then ever before, as people wait longer and longer to have children. One in ten couples older than 30 has trouble conceiving. After age 35, the ratio is one in five. Of course, age isn't a problem for everyone. Some women reportedly

get pregnant even in their 50s. (The Guinness Book of World's Records says the world's oldest mother was 57½ when she conceived.) But face it: Spontaneous pregnancy in a woman's late 40s and 50s is rare.



Doctors once thought that having sex daily would result in a lower sperm count and reduce fertility. However, later medical studies found that this idea is true only in men who have a lower-than-normal sperm count to start with.

### Monitoring your basal body temperature

Some women find that they can pinpoint their time of ovulation more easily if they keep track of their temperature, which rises close to the time of ovulation. To do this, you take your temperature (orally) each morning before you get out of bed. It typically reaches its lowest point right before your pituitary gland releases *luteinizing hormone* (LH), which triggers ovulation. (Two days after the so-called *LH surge*, your temperature rises significantly — about a half to one degree above baseline — and stays elevated until you get your period. If you get pregnant, it remains high.) You may want to invest in a special "basal body temperature" thermometer (sold in most drug stores) because it has larger gradations and is easier to read.



Remember that a rise in your basal body temperature indicates that ovulation has already occurred. It doesn't predict when you will ovulate, but it does confirm that you're ovulating and gives you a rough idea when ovulation occurs in your cycle. Reading the signals can be hard because not all women follow the same pattern. Some never see a distinct drop in temperature, and some never see a clear rise.

### Using an ovulation predictor kit

Another way to monitor the LH surge is to use a home ovulation predictor kit, which tests the amount of LH in urine. As opposed to basal body temperatures that we mention earlier in this chapter, the LH surge is useful in predicting when ovulation will occur during any given cycle. A positive test for any cycle tells you that you're ovulating and when. In general, these kits are very accurate and effective. The main drawback is the expense. At \$20 to \$30 per kit, they're more expensive than taking your temperature, especially if you have to check several times to find out when you were ovulating.

A new way of checking for ovulation is now available, which involves testing saliva instead of urine. The increased estrogen levels that occur around the time of ovulation cause the saliva to form a crystallized pattern upon drying. Both the urine tests and saliva tests are equally accurate at predicting ovulation. The saliva kit costs about \$60, but you can use it for up to one year.

### Taking an effective (and fun) approach

In most cases, parents-to-be are well advised to just relax and enjoy the process of trying to conceive. Don't get too anxious if it doesn't happen right off the bat. We often tell our patients: Think about stopping birth control a few months before you actually plan on getting pregnant. This way, you have some carefree months of enjoying great sex without worrying each month if you're pregnant. And if you do conceive ahead of schedule, enjoy the nice surprise!



You can take a few steps to improve your chances of conceiving:

- ✓ If you smoke cigarettes or marijuana, quit.
- Avoid using K-Y Jelly or other commercial lubricants during sex, because they may contain spermicide. (Try olive oil or vegetable oil instead.)
- Limit your caffeine intake. Drinking more than three cups of coffee per day may decrease your chances of conceiving.

When should you seek a doctor's help? Generally, after you've been trying unsuccessfully to get pregnant for six months to a year. But if you have a history of miscarriages or difficulty conceiving, if you're older than 35, or if you already know that your partner has a low sperm count, you may want to get help before six months are up. No matter what your situation, don't despair. Reproductive technologies become more sophisticated — and more successful — with each passing year. At this point, couples can try various techniques with complicated-sounding names — ovarian stimulation with fertility medications, intrauterine insemination (with or without sperm washing), intracytoplasmic sperm injection, use of donor sperm or donor eggs, and in vitro fertilization (and its many variations) — depending on their particular cause of infertility. For a couple that has trouble conceiving right away, chances are better then ever that they will eventually become pregnant. Check out Fertility For Dummies by Jackie Meyers-Thompson and Sharon Perkins (Wiley Publishing, Inc.) for more information. If you're having trouble getting pregnant, and you're not sure whether it's time to see an infertility specialist, discuss it with your practitioner.

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