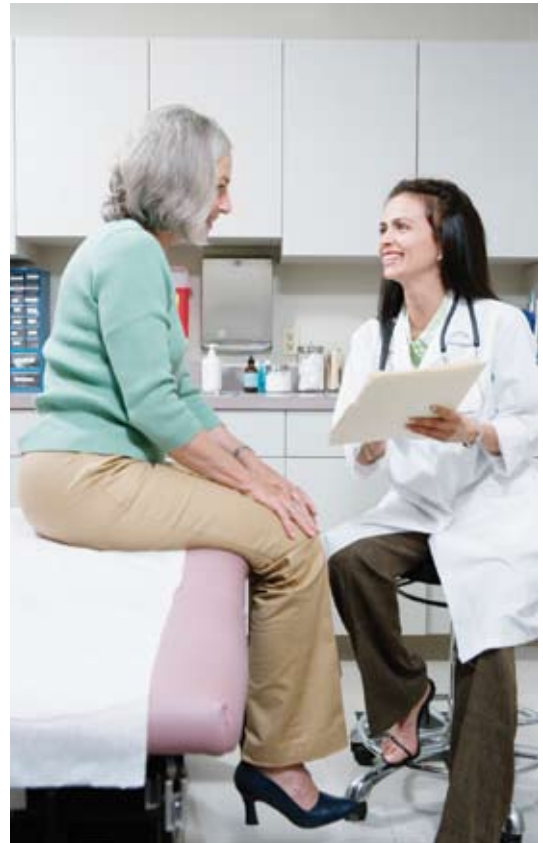


Reproductive Health

A healthy reproductive system makes the miracle of life possible. Taking good care of your reproductive health is important because problems with this system can make it hard or impossible for you to become pregnant. Reproductive health problems also can be harmful to your overall health and emotional well-being and can make it hard to enjoy a sexual relationship. Fortunately, many reproductive health problems can be prevented or corrected if you take good care of your body and see your doctor for regular checkups and screenings.

Caring for your reproductive health involves:

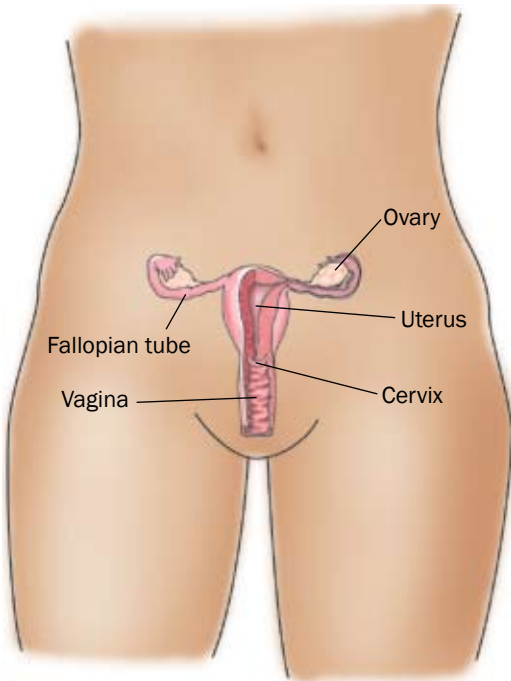
- Learning how your reproductive system works and what is normal for you. Knowing these things will help you to tell if you need to see a doctor.
- Keeping away from substances and chemicals that can harm your reproductive health and ability to produce healthy children.
- Seeing your doctor for routine checkups and screenings. This way, problems can be found early, so they can be treated or kept from getting worse.
- Protecting yourself from sexually transmitted infections (STIs), which are very common and easily spread. They can damage reproductive organs and make it hard to get pregnant or cause problems during pregnancy.
- Incorporating family planning.



Your reproductive system

A woman has reproductive organs both inside and outside her body. All the organs play a role in the reproductive process, which includes:

- menstrual cycle—a woman’s monthly cycle, which includes getting your period
- conception—when a woman’s egg is fertilized by a man’s sperm
- pregnancy
- childbirth



Here are the major reproductive organs and what they do:

Ovaries—These two small glands contain eggs (ova) and make hormones. One of the ovaries releases an egg about once a month as part of the menstrual cycle. This is called ovulation.

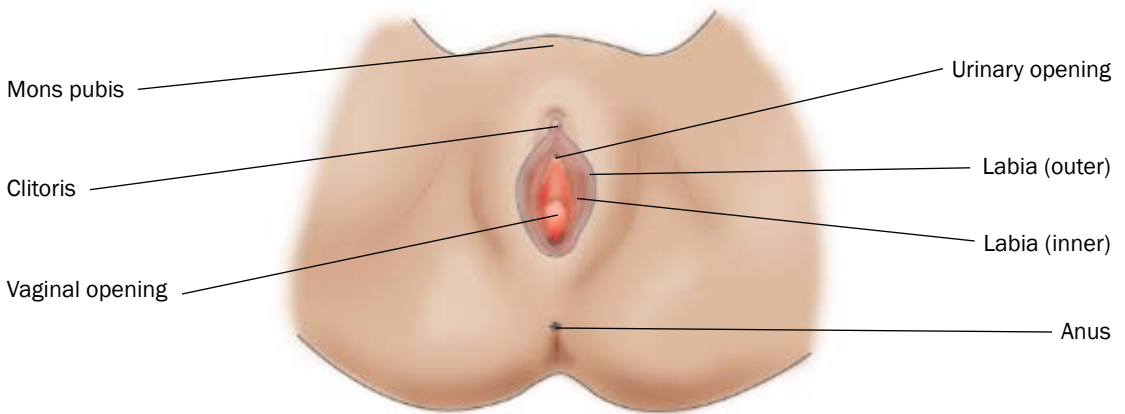
Fallopian tube—When an egg is released, it travels through the fallopian tube to the uterus. You will get pregnant if you have sex with a man, and his sperm fertilizes the egg on its way to your uterus.

Uterus—The uterus, or womb, is a hollow, pear-shaped organ. The tissue that lines the uterus is called the endometrium. If a fertilized egg attaches itself to the lining of the uterus, it may continue to develop into a fetus. The uterus expands as the fetus grows. The muscular walls of the uterus help to push the mature fetus out during birth. If pregnancy does not occur, the egg is shed along with the blood and tissue that lines the uterus. This is menstruation, also called getting your period.

Cervix—This narrow entryway connects the vagina and uterus. The cervix is flexible so that it can expand to let a baby pass through during birth.

Reproductive health topics found elsewhere in this book:

Cancer, including breast, cervical, endometrial, and uterine cancers.....	page 51
Menopause.....	page 224
Pregnancy, preconception care, infertility.....	page 169
Sexually transmitted infections (STIs).....	page 119
Urinary incontinence.....	page 254



Vagina—Also called the birth canal, the vagina stretches during childbirth.

Caring for Your Vulva

The vulva does not need special care. But there are a few things you can do to stay comfortable and prevent infections:

- Do not douche. Douching may make a woman more prone to vaginal infections and make it harder to get pregnant for women who want to.
- Wear only cotton underpants and avoid tight-fitting pants and pantyhose.
- Use a personal lubricant for intercourse if the vagina is dry or more lubrication is needed. Frequent use of lubricants that contain the spermicide nonoxynol-9 (N-9) can irritate the vulva and vagina and might increase the risk of infections, including HIV.
- Use a mirror to check your vulva once a month. If you notice any signs of problems, such as swelling, changes in color, or change in your usual discharge, contact your doctor.

The external female genital organ is the vulva. The vulva has five parts: mons pubis, labia, clitoris, urinary opening, and vaginal opening.

Know your period

Chemicals a woman's body makes called hormones rise and fall during the month and make the menstrual cycle happen. Keep track of your menstrual cycle with a menstrual diary or calendar, so you can know what's normal for you. Make a note of the day your period starts and ends in your calendar and if your bleeding is heavier or lighter than usual. Most cycles are about 28 days long. Your period might not be the same every month. Also make a note of changes in your



mood or body during your cycle. Some women have mild pain on one side of their abdomen during ovulation. You might also notice these symptoms in the days leading up to your period:

- cramping, bloating, and sore breasts
- food cravings
- mood swings and irritability
- headaches and fatigue

Women whose symptoms are severe may have premenstrual syndrome (PMS). Let your doctor know if you have trouble coping with the symptoms of your period, especially mood swings.

Regular periods: A sign of good health

Sometimes women have problems with their menstrual cycle. These are some common menstrual problems:

- Abnormal uterine bleeding includes very heavy or long-lasting periods (menorrhagia) (MEN-uh-RAY-jee-uh) or irregular bleeding. Uterine fibroids (FY-broidz) are the most common cause of menorrhagia in adult women. Young teenage girls often have longer cycles until their reproductive system is fully mature. Also, periods may become irregular as you near menopause.
- Amenorrhea (ay-men-uh-REE-uh) occurs when a young woman hasn't started menstruating by age 16, or when a woman who used to have a regular period stops menstruating for at least 3 months. The most common cause is pregnancy. But amenorrhea can be a symptom of a disorder, such as polycystic ovary syndrome, prema-



ture ovarian failure, or thyroid problems. It is also a sign of a less common but serious condition called female athlete triad, which affects a woman's menstrual cycle, eating habits, and bone health. Competitive athletes and women who engage in a great deal of physical activity are at risk of this disorder.

- Dysmenorrhea (diss-men-uh-REE-uh) is severe pain during a woman's period. The natural production of a hormone called prostaglandin (PROSS-tuh-GLAN-duhn) can cause intense cramping. It is a problem found mainly in girls and young women. In women in their 20s, 30s, and 40s, a condition such as uterine fibroids or endometriosis (EN-doh-MEE-tree-OH-suhss) may cause painful periods.
- Premature ovarian failure (POF) is when a woman's ovaries stop working normally before she is 40. POF is not the same as early menopause. Some women with POF still get a period

When to Get Help for Problem Periods

Problem periods often are a symptom of another condition, which may or may not need treatment. See your doctor if:

- you have not started menstruating by the age of 16
- your period suddenly stops
- you are bleeding for more days than usual
- you are bleeding much more than usual
- your periods become irregular after having had regular, monthly cycles
- your period occurs more often than every 21 days or less often than every 45 days
- you suddenly feel very sick while or after using tampons, experiencing symptoms such as high fever, headache, throwing up, rash, or feeling faint
- you bleed between periods (more than just a few drops)
- you have severe pain during your period
- you have severe emotional or physical symptoms in the days before your period



now and then. But getting pregnant is hard for women with POF. Women with POF also are more likely to develop certain conditions, including osteoporosis (OSS-tee-oh-puh-ROH-suhss), low thyroid function, and an autoimmune (aw-toh-ih-MYOOON) disease called Addison's disease. (See page 83 of the *Autoimmune Diseases* chapter for more information.) No treatment will restore ovary function. But some symptoms of POF and the risk of bone loss can be helped by hormone therapy. The cause of POF is not known. But it appears to run in some families. POF also occurs in some women who carry the mutated gene that causes Fragile X syndrome. Women with POF should talk to their doctors about being tested to see if

they are a carrier of this mutated gene. (See page 408 of the Appendix for information on genetic testing.)

- Premature menopause is when a woman's period stops completely before she is 40. This can occur naturally or because of medical treatment or surgery. Early menopause puts a woman at greater risk of heart disease and osteoporosis, but there are treatment options to lower these risks.

Reproductive and gynecologic health

There are many conditions and disorders that can affect the organs in a woman's abdominal and pelvic areas. We don't know what causes many reproductive health problems. But there are ways to manage symptoms or make them go

away, such as with medicine, surgery, physical therapy, or lifestyle changes. The specific problem, your symptoms, your

age, and your desire to have children are factors that often guide treatment choices.

Disorder	Signs to look for
<p>Endometrial hyperplasia (EN-doh-MEE-tree-uhl HEYE-pur-PLAY-zhee-uh) occurs when the lining of the uterus grows too thick. It is not cancer. But if the cells of the lining become abnormal, it can lead to cancer of the uterus.</p>	<p>Abnormal bleeding is the most common sign.</p>
<p>Endometriosis occurs when tissue that’s like the uterine lining grows outside the uterus. It is very common, mainly affecting women in their 30s and 40s. It is one of the top three causes of infertility. Assisted reproductive technology (ART) helps many women with endometriosis become pregnant. (See the <i>Pregnancy</i> chapter on page 169 for more information on treating infertility.)</p>	<p>Pelvic pain is the main symptom. Other types of pain include very painful periods; chronic pain in the belly, lower back, and pelvis; pain during sex; and pain during bowel movements or while passing urine. Difficulty becoming pregnant is another sign. Symptoms often improve after menopause.</p>
<p>Ovarian cysts are fluid-filled sacs in the ovaries. In most cases, a cyst is completely normal: It does no harm and goes away by itself. Most women have them at some point in their lives. Often, a woman finds out about a cyst when she has a pelvic exam. Cysts are rarely cancerous in women younger than 50. See also, polycystic ovary syndrome.</p>	<p>Cysts may not cause any symptoms. Some cysts may cause pain, discomfort, and irregular periods—but not always. If you have cysts, watch for changes or acute symptoms. Call your doctor right away if you have:</p> <ul style="list-style-type: none"> • Sudden, severe pain in your pelvis or abdomen • Pain with fever or throwing up
<p>Painful sexual intercourse (dyspareunia) (DISS-puh-ROO-nee-uh) can cause distress for a woman and her partner. Some causes of pain are:</p> <ul style="list-style-type: none"> • Vaginal dryness • Infections • Vaginismus—spasms of the muscles around the vagina • Uterine fibroids • Scar tissue • Past experiences, negative attitudes about sex, or fear of pain also can play a role 	<p>Pain during sex can have many forms. Some women have pain outside the vagina, such as with vulvodynia. Some women feel like “something is being bumped into” when the penis is inside the vagina. You might feel pain every time you have sex or only now and then. It might be hard for women who have pain during sex to become aroused, even if they don’t have pain all the time.</p>
<p>Pelvic floor problems occur when tissues that support the pelvic organs weaken or are damaged. This can happen because of pregnancy, childbirth, weight gain, surgery, and normal aging. In uterine prolapse, the uterus drops into the vagina. In some cases this causes the cervix to come out through the vaginal opening. In vaginal prolapse, the top of the vagina loses support and can drop through the vaginal opening.</p>	<p>You might notice a feeling of heaviness or pressure as if something is “falling” out of the vagina. It might also be hard to empty your bladder completely. You might also get frequent urinary tract infections.</p> <p>Sometimes, urinary and anal incontinence are signs of pelvic support problems.</p> <p>Kegel exercises can make your pelvic muscles stronger. (See page 256 of the <i>Urologic and Kidney Health</i> chapter for more information.)</p>

Disorder	Signs to look for
<p>Pelvic pain can have a number of causes. Often, it is a symptom of another condition, or infection. Sometimes, the reason for pelvic pain is not found. Pain that lasts a long time can disrupt a woman’s quality of life and lead to depression.</p>	<p>Pain comes in many forms. Acute pain lasts a short time. Chronic pelvic pain lasts for more than 6 months and does not improve with treatment. Describing your pain will help your doctor find out the cause. A pain diary is a good way to keep track of your pain.</p>
<p>Polycystic ovary syndrome (PCOS) is a hormone imbalance problem, which can interfere with normal ovulation. This can lead to irregular periods and multiple cysts on the ovaries. PCOS is the most common cause of female infertility. Women with PCOS also are at higher risk of diabetes, high blood pressure, metabolic syndrome, heart disease, and perhaps fibroids and depression.</p>	<p>Signs of PCOS include:</p> <ul style="list-style-type: none"> • Irregular, infrequent periods • Obesity • Excess hair growth on the face, chest, stomach, thumbs, or toes • Acne • Trouble becoming pregnant
<p>Uterine fibroids are tumors or lumps that grow within the wall of the uterus. They are not cancer. Fibroids may grow as a single tumor or in clusters. A single fibroid can be 1 inch or less in size or grow to 8 inches across or more. Fibroids are very common, affecting at least one-quarter of all women. African American women and women who are overweight are at greater risk. Women who have given birth are at lower risk.</p>	<p>Some women don’t have any symptoms. But fibroids can cause:</p> <ul style="list-style-type: none"> • Heavy bleeding or painful periods • Bleeding between periods • Feeling “full” in the lower abdomen • Frequent need to pass urine • Pain during sex • Lower back pain • Infertility, more than one miscarriage, or early labor <p>Most women with fibroids are able to become pregnant. Often, fibroids stop growing or shrink after menopause.</p>
<p>Vaginitis is when the vagina is inflamed. It can happen for these reasons:</p> <ul style="list-style-type: none"> • Vaginal yeast infection—an overgrowth of fungus, such as candida, which is normally present in the vagina • Bacterial vaginosis—an overgrowth of certain kinds of bacteria that are normally present in the vagina • Sexually transmitted infections • Allergy to douches, soaps, feminine sprays, spermicides, etc 	<p>Vaginitis may not always have symptoms. When it does, you might notice these signs:</p> <ul style="list-style-type: none"> • Burning • Itching • Redness or puffiness • Abnormal discharge with a “fishy” odor or change in the way it normally looks. Yeast infections often cause cottage cheese-like discharge.
<p>Vulvodynia is chronic pain and discomfort of the vulva. It can make it hard to sit comfortably, be active, or enjoy a sexual relationship. Over time, coping with pain can lower self-esteem and lead to depression.</p>	<p>You might feel burning, stinging, rawness, or aching even though the vulva might look normal. Pain might be felt all over the vulva or in a single spot. Pain can be constant or come and go. You might feel pain only after touch or pressure, such as from using tampons, having sex, or riding a bike.</p>

Hysterectomy

Hysterectomy is surgery to remove the uterus. It is the second most common surgery among women in the United States. Some reasons a woman might need a hysterectomy include:

- uterine fibroids
- endometriosis
- uterine prolapse
- cancer
- abnormal uterine bleeding

In some cases, women have other treatment options, such as new medicines or procedures. These alternatives might offer lower risk and quicker recovery time. But they might have drawbacks, too. With your doctor, discuss all the treatment options that might help your problem. Consider getting a second opinion to help you make a wise choice.

Breast health

Breast health is important to a woman's sexual health, overall health, and breast-feeding. Your breasts will change at different times of your life. You might notice lumpiness or tenderness during your period. Your breasts might get bigger during pregnancy. As you get older, the milk-producing tissue of your breasts turns into soft, fatty tissue, which might feel different to you. It's important to know the way your breasts normally feel and look so you can tell your doctor if you notice changes. A change can be a sign of a problem, including breast cancer. Although not all lumps or breast changes mean you have cancer or a prob-

lem, any change in breast tissue should be checked by a doctor. Ask your doctor how you can do a self-exam. Checking your breasts once a month, a few days after your period ends, can alert you to these reasons to call your doctor:

- a hard lump or knot in or near the breast or in your underarm
- dimpling, puckering, or ridges of the skin on the breast
- a change in the size or shape of your breast
- clear or bloody fluid that leaks out of the nipple
- itchy, scaly sore or rash on the nipple
- unusual swelling, warmth, or redness

You should also get a clinical breast exam as part of your regular checkup. This is done by your doctor. Women age 40 and older should have screening mammograms every 1 to 2 years. It is an x-ray of the breast. Ask your doctor how often you need one. A mammogram along with a clinical breast exam is the best way to find breast cancer. (See page 62 of the *Cancer* chapter for more information.)



Preventing unintended pregnancy

About one-half of all pregnancies in the United States are unintended. Not having sex or using a safe and effective birth control method (contraception) is the best way to avoid pregnancy. Use this chart to learn about birth control methods, and talk to your doctor to find one that's right for you.



Method	How you get it	Failure rate* (Number of pregnancies expected per 100 women) <i>Methods range in effectiveness from light (most effective) to dark (least effective).</i>	Some side effects and risks**
Sterilization surgery for women	One-time procedure, which is permanent	Less than 1	Pain Bleeding Complications from surgery Ectopic (tubal) pregnancy
Sterilization implant for women	One-time procedure, which is permanent	Less than 1	Pain Ectopic (tubal) pregnancy
Sterilization surgery for men (vasectomy)	One-time procedure, which is permanent	Less than 1	Pain Bleeding Complications from surgery
Implantable rod	One-time procedure, which lasts up to 3 years	Less than 1 This method might not work as well for women who are overweight or obese.	Acne Weight gain Cysts of the ovaries Mood changes Depression Hair loss Headache Upset stomach Dizziness Sore breasts Changes in period Lower interest in sex
Intrauterine device (IUD)	One-time procedure, which can stay in place for 5 to 10 years	Less than 1	Cramps Bleeding between periods Pelvic inflammatory disease Infertility Tear or hole in the uterus

Method	How you get it	Failure rate* (Number of pregnancies expected per 100 women) <i>Methods range in effectiveness from light (most effective) to dark (least effective).</i>	Some side effects and risks**
Shot/injection	Your doctor gives you one shot every 3 months	Less than 1	Bleeding between periods Weight gain Sore breasts Headaches Bone loss with long-term use
Oral contraceptives (combination pill, or “the pill”)	Prescription	5 Being overweight may increase the chance of getting pregnant while using birth control pills.	Dizziness Upset stomach Changes in your period Changes in mood Weight gain High blood pressure Blood clots Heart attack Stroke New vision problems
Oral contraceptives (continuous/extended use, or “no-period pill”)	Prescription	5 Being overweight may increase the chance of getting pregnant while using birth control pills.	Same as combination pill Spotting or bleeding between periods Hard to know if pregnant
Oral contraceptives (progestin-only pill, or “mini-pill”)	Prescription	5 Being overweight may increase the chance of getting pregnant while using birth control pills.	Spotting or bleeding between periods Weight gain Sore breasts
Skin patch	Prescription	5 The patch may be less effective in women weighing more than 198 pounds.	Similar to those for the combination pill Greater exposure to estrogen than with other methods
Vaginal ring	Prescription	5	Similar to those for the combination pill Swelling of the vagina Irritation Vaginal discharge
Male condom	Over the counter	11–16	Allergic reaction

Method	How you get it	Failure rate* (Number of pregnancies expected per 100 women) <i>Methods range in effectiveness from light (most effective) to dark (least effective).</i>	Some side effects and risks**
Diaphragm with spermicide	Prescription	15	Irritation Allergic reactions Urinary tract infection Toxic shock if left in too long
Sponge with spermicide	Over the counter	16–32	Irritation Allergic reactions Hard time removing Toxic shock if left in too long
Cervical cap with spermicide	Prescription	17–23	Irritation Allergic reactions Abnormal Pap smear Toxic shock if left in too long
Female condom	Over the counter	20	Irritation Allergic reactions
Natural family planning	Ask your doctor or natural family planning instructor for information	25	None
Spermicide alone	Over the counter	30 Spermicides can offer added pregnancy protection if used with another barrier method, such as a condom.	Irritation Allergic reactions Urinary tract infection
Emergency contraception—if your primary method of birth control fails. It should not be used as a regular birth control method.			
Emergency contraception (“morning-after pill”)	Over the counter for adults. Girls younger than 18 need a prescription.	15 It must be used within 72 hours of unprotected sex.	Upset stomach Vomiting Stomach pain Fatigue Headache

*Failure rates depend on whether a birth control method is used correctly and consistently. Your chances of getting pregnant are lowest if birth control always is used correctly and every time you have sex.

**Only condoms can protect against most sexually transmitted infections (STIs). The male latex condom offers the best protection against STIs if used correctly and all the time.

Birth Control Warning

Using the pill or patch may increase your risk of stroke or heart attack. Seek immediate medical care if you have any of the following:

- sudden change in vision, blurring, or flashing lights
- severe headache
- unusual leg pain, particularly in your calf
- chest pain, trouble breathing, or coughing up blood
- severe pain in your belly

See your doctor regularly, even if you're feeling fine

Talk to your doctor about how often you need to schedule a general checkup and specific screenings or tests. This will depend on your age, risk factors, symptoms, and other issues. Here are guidelines for some of the exams, screenings, and vaccines you might need.

- **Human papillomavirus (HPV) vaccine**—It is recommended that girls 11 and 12 years of age get the HPV vaccine. Also, girls and women 13 through 26 years of age should get the vaccine if they did not get it when they were younger.

For more information on the HPV vaccine, see page 134 of the *Sexually Transmitted Infections* chapter.

- **Mammogram**—Women age 40 and older should have screening mammograms every 1 to 2 years.
- **Pap test and pelvic exam**—Women should have a Pap test at least once every 3 years, beginning about 3 years after they begin to have sexual intercourse, but no later than age 21. Women who have had the HPV vaccine still need to have Pap tests.
- **Sexually transmitted infection (STI) screening**—New partners should get tested for common STIs, including HIV, before becoming sexually active.

For information on testing, see pages 122–128 of the *Sexually Transmitted Infections* chapter.

By taking steps to prevent problems and seeing your doctor for regular checkups, you can feel good knowing you're doing all you can to take care of your reproductive health at all stages of life. ■



One Woman's Story

I have long suffered from cramps, excessive bleeding, feeling bloated, and frequent urination. I thought that it was normal and did not complain to my parents. During my first trip to the OB-GYN, I learned that I had a uterine fibroid the size of a small gumball. My doctor suggested we monitor its growth but not take action. Consequently, each month I continued to deal with the same problems.

During the birth of my daughter, a nurse suggested that I have the fibroid removed after I was back on my feet. I did have to use the bathroom even more frequently while pregnant, but I didn't blame it on the fibroid. With all of the excitement of having a new baby in the house, I forgot about addressing my problem. Also, my OB-GYN recommended we leave it alone because it would shrink as I aged.

A move led to a new doctor who told me that the fibroid was about the size of an egg, but that we would continue to monitor the size. I was concerned that it had grown so significantly. The problems that I experienced continued to get worse over time, and it became increasingly more difficult to get my job done because of frequent trips to the ladies' room. I was embarrassed to fly on an airplane because I did not want to disturb the people who sat in my row on the plane. Each month I had to take a couple of days off from work because of severe pain. I was very physically active, but I did not see any reduction in the size of my abdominal area.

Finally, I decided to seek advice from an OB-GYN surgeon, who explained my options. We discussed laser technology to shrink the fibroid and a hysterectomy, although I was not prepared to experience menopause. After much consideration and discussions with my spouse, I determined that the best option for me was a myomectomy—surgical removal of the fibroid. My hope was to minimize the changes to my body.

The surgery was successful, and I learned that there were actually three fibroids connected to one another. Afterward, I no longer experienced excessive bleeding, cramps, bloating, or frequent urination. I recommend that every woman with these symptoms schedule regular checkups and talk about her options with her doctor. You may not have to suffer!

Cordelia

Chicago, Illinois

Each month I had to take a couple of days off from work because of severe pain.

For More Information...

Office on Women's Health, HHS

200 Independence Ave SW, Room 712E
Washington, DC 20201
Web site: www.womenshealth.gov/faq/menstru.htm
www.womenshealth.gov/faq/ovarian_cysts.htm
Phone number: (800) 994-9662,
(888) 220-5446 TDD

Center for the Evaluation of Risks to Human Reproduction, NIH

PO Box 12233
Research Triangle Park, NC 27709
Web site: <http://cerhr.niehs.nih.gov>
Phone number: (919) 541-3455

Division of Reproductive Health, CDC

4770 Buford Hwy NE, MS K-20
Atlanta, GA 30341-3717
Web site: www.cdc.gov/reproductivehealth

Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH

PO Box 3006
Rockville, MD 20847
Web site: www.nichd.nih.gov
Phone number: (800) 370-2943,
(888) 320-6942 TTY

Office of Women's Health, FDA

5600 Fishers Ln
Rockville, MD 20857
Web site: www.fda.gov/womens
Phone number: (888) 463-6332

American College of Obstetricians and Gynecologists

409 12th St SW, PO Box 96920
Washington, DC 20090-6920
Web site: www.acog.org
Phone number: (202) 863-2518 Resource Center

American Society for Reproductive Medicine

1209 Montgomery Hwy
Birmingham, AL 35216-2809
Web site: www.asrm.org

Association of Reproductive Health Professionals

2401 Pennsylvania Ave NW, Suite 350
Washington, DC 20037
Web site: www.arhp.org
Phone number: (202) 466-3825

Endometriosis Association

8585 N 76th Place
Milwaukee, WI 53223
Web site: www.endometriosisassn.org

Planned Parenthood Federation of America

434 W 33rd St
New York, NY 10001
Web site: www.plannedparenthood.org
Phone number: (800) 230-7526

Polycystic Ovarian Syndrome Association

PO Box 3403
Englewood, CO 80111
Web site: www.pcosupport.org