PATIENT EDUCATION

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Uterine Fibroids

*Uterine fibroids are benign (not cancer) growths in the **uterus**. They are the most common type of growth found in a woman's pelvis. In some women, fibroids remain small and do not cause symptoms or problems. However, in some women, fibroids can cause problems because of their size, number, and location.*

This pamphlet explains

- *types and causes of fibroids*
- *symptoms and complications*
- *diagnosis and treatment*

Types of Fibroids

Uterine fibroids are growths that develop from the muscle tissue of the uterus. They also are called leiomyomas or myomas.

The size, shape, and location of fibroids can vary greatly. They may be inside the uterus, on its outer surface or within its wall, or attached to it by a stem-like structure.

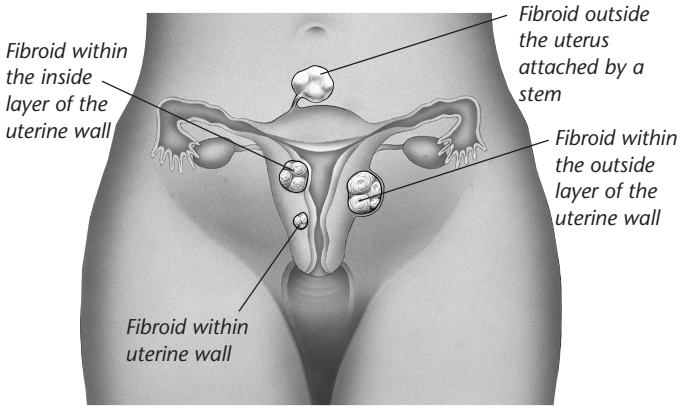
Fibroids can range in size from small, pea-sized growths to large, round ones that may be more than 5–6 inches wide. As they grow, they can distort the inside as well as the outside of the uterus. Sometimes fibroids grow large enough to completely fill the pelvis or abdomen.

A woman may have only one fibroid or many of varying sizes. Whether fibroids will occur singly or in groups is hard to predict. They may remain very small for a long time, suddenly grow rapidly, or grow slowly over a number of years.

Causes

Fibroids are most common in women aged 30–40 years, but they can occur at any age. Fibroids occur more often in African American women than in white women. They also seem to occur at a younger age and grow more quickly in African American women.

It is not clear what causes fibroids. Some research suggests that they develop from misplaced cells that are in the body before birth. The female hormones ***estrogen*** and ***progesterone*** appear to be involved in their growth. Levels of these hormones can increase or decrease throughout a woman's life. For instance, ***menopause*** causes a decrease in estrogen. Fibroids often shrink when a woman enters menopause. Hormonal drugs that contain estrogen, such as birth control pills, may cause fibroids to grow.



Fibroids may be attached to the outside of the uterus or be located inside the uterus or uterine wall.

Symptoms

Fibroids may cause the following symptoms:

- Changes in ***menstruation***
  - –Longer, more frequent, or heavy menstrual periods
  - –Menstrual pain (cramps)
  - –Vaginal bleeding at times other than menstruation
  - –***Anemia*** (from blood loss)
- Pain
  - –In the abdomen or lower back (often dull, heavy and aching, but may be sharp)
  - –During sex
- Pressure
  - –Difficulty urinating or frequent urination
  - –Constipation, rectal pain, or difficult bowel movements
  - –Abdominal cramps
- Enlarged uterus and abdomen
- Miscarriages
- Infertility

These symptoms also may be signs of other problems. Therefore, you should see your health care professional if you have any of these symptoms.

Fibroids also may cause no symptoms at all. Fibroids may be found during a routine ***pelvic exam*** or during tests for other problems.

Complications

Although most fibroids do not cause problems, there can be complications. Fibroids that are attached to the uterus by a stem may twist and can cause pain, nausea, or fever. Fibroids that grow rapidly, or those that start breaking down, also may cause pain. Rarely, they can be associated with cancer.

A very large fibroid may cause swelling of the abdomen. This swelling can make it hard to do a thorough pelvic exam.

Fibroids also may cause infertility, although other causes are more common. Other factors should be explored before fibroids are considered the cause of a couple's infertility. When fibroids are thought to be a cause, many women are able to become pregnant after they are treated.

Diagnosis

The first signs of fibroids may be detected during a routine pelvic exam. A number of tests may show more information about fibroids:

- ***Ultrasonography*** uses sound waves to create a picture of the uterus and other pelvic organs.
- ***Hysteroscopy*** uses a slender device (the hysteroscope) to see the inside of the uterus. It is inserted through the vagina and cervix (opening of the uterus). This lets your health care professional see fibroids inside the uterine cavity.
- ***Hysterosalpingography*** is a special X-ray test. It may detect abnormal changes in the size and shape of the uterus and fallopian tubes.
- ***Sonohysterography*** is a test in which fluid is put into the uterus through the cervix. Ultrasonography is then used to show the inside of the uterus. The fluid provides a clear picture of the uterine lining.
- ***Laparoscopy*** uses a slender device (the laparoscope) to help your health care professional see the inside of the abdomen. It is inserted through a small cut just below or through the navel. Fibroids on the outside of the uterus can be seen with the laparoscope.

Imaging tests, such as magnetic resonance imaging and computed tomography scans, may be used but are rarely needed. Some of these tests may be used to track the growth of fibroids over time.

Uterine Fibroids and Pregnancy

A small number of pregnant women have uterine fibroids. If you are pregnant and have fibroids, they likely will not cause problems for you or your fetus.

During pregnancy, fibroids may increase in size. Most of this growth occurs from blood flowing to the uterus. Combined with the extra demands placed on the body by pregnancy, the growth of fibroids may cause discomfort, feelings of pressure, or pain. Fibroids can increase the risk of

- miscarriage (in which the pregnancy ends before 20 weeks)
- preterm birth
- breech birth (in which the baby is born in a position other than head down)

Treatment

Fibroids that do not cause symptoms, are small, or occur in a woman who is nearing menopause often do not require treatment. Certain signs and symptoms may signal the need for treatment:

- Heavy or painful menstrual periods that cause anemia or that disrupt a woman's normal activities
- Bleeding between periods
- Uncertainty whether the growth is a fibroid or another type of tumor, such as an ovarian tumor
- Rapid increase in growth of the fibroid
- Infertility
- Pelvic pain

There are many treatment options for fibroids. The choice of treatment depends on factors such as your own wishes and your health care professional's medical advice about the size and location of the fibroids.

Medications

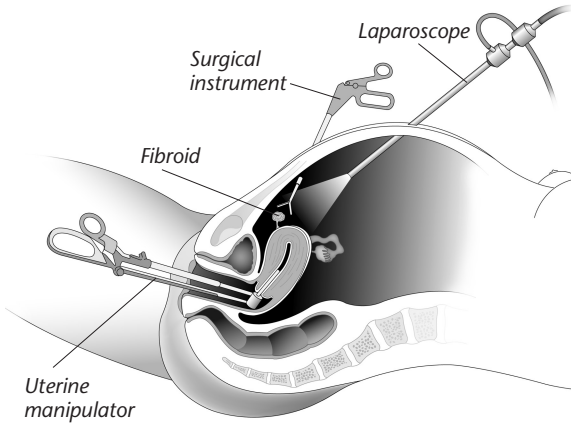
Drug therapy is an option for some women with fibroids. Medications may reduce the heavy bleeding and painful periods that fibroids sometimes cause. But, they may not prevent the growth of fibroids. Surgery often is needed later. Drug treatment for fibroids includes the following options:

- Birth control pills and other types of hormonal birth control methods—These drugs often are used to control heavy bleeding and painful periods. A drawback is that this treatment may cause the fibroids to increase slightly in size. For some women, the benefits of hormonal contraception outweigh the risk of this side effect.
- Gonadotropin-releasing hormone (GnRH) agonists—These drugs stop the menstrual cycle and can shrink fibroids. They sometimes are used before surgery to reduce the risk of bleeding. GnRH agonists have many side effects, including bone loss, ***osteoporosis***, vaginal dryness, and night sweats. For these reasons, they are used only for short periods (less than 6 months). After a woman stops taking a GnRH agonist, her fibroids usually return to their previous size.
- ***Progestin***-releasing ***intrauterine device (IUD)***—This option is for women with fibroids that do not distort the inside of the uterus. It reduces heavy and painful bleeding but does not treat the fibroids themselves.

In addition to these drugs, many others are being studied for the treatment of fibroids.

Myomectomy

Myomectomy is the surgical removal of fibroids while leaving the uterus in place. Because a woman keeps her uterus, she may still be able to have children. If a woman does become pregnant after a myomectomy, the baby may need to be delivered by ***cesarean birth***. Sometimes, though, a myomectomy causes internal scarring that can lead to infertility.



In myomectomy, fibroids are surgically removed. Shown here is a laparoscopic myomectomy, in which small cuts are made in the abdomen. A laparoscope is used to view the inside of the pelvis. Other instruments are used to remove the fibroids. Other ways to perform myomectomy are with laparotomy or hysteroscopy.

Fibroids do not regrow after surgery, but new fibroids may develop. If they do, more surgery may be needed.

Myomectomy may be done in a number of ways:

- ***Laparotomy***
- Laparoscopy
- Hysteroscopy

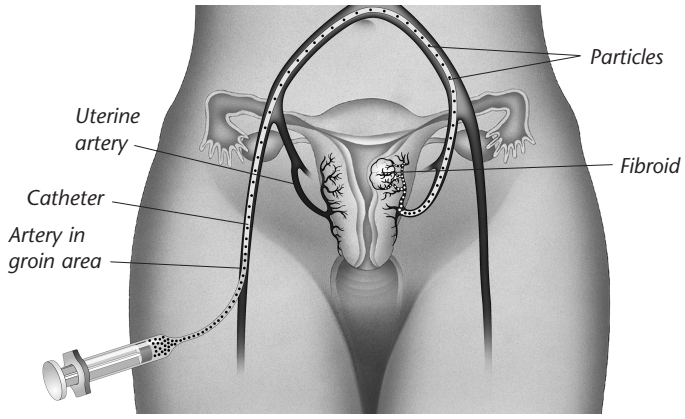
The method used depends on the location and size of the fibroids. In laparotomy, an incision (cut) is made in the abdomen. The fibroids are removed through the incision. In laparoscopy, a laparoscope is used to view the inside of the pelvis. Other tools are inserted through another small incision to remove the fibroids.

Hysteroscopy can be used to remove fibroids that protrude into the cavity of the uterus. A ***resectoscope*** is inserted through the hysteroscope. The resectoscope destroys fibroids with electricity or a laser beam. Although it cannot remove fibroids deep in the walls of the uterus, it often can control the bleeding these fibroids cause. In most cases, an overnight stay in the hospital is not necessary.

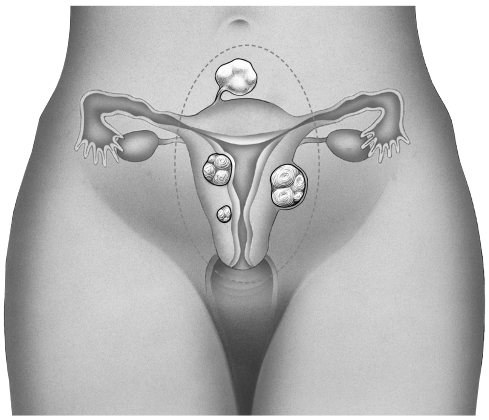
Myomectomy has risks, including bleeding and infection. Hysteroscopy may cause other problems related to the use of fluid during the procedure. Your health care professional can explain all of the risks to you.

Uterine Artery Embolization

Another way to treat fibroids is called uterine artery embolization (UAE). In this procedure, the blood vessels to the uterus are blocked, stopping the blood flow that allows fibroids to grow.



Uterine artery embolization (UAE). *In UAE, small particles are inserted into the uterine arteries. The particles stop the flow of blood to the fibroids, causing them to shrink.*



Hysterectomy. *For very large fibroids that do not respond to other treatments, hysterectomy—removal of the uterus—may be done.*

This procedure usually is performed by a specially trained radiologist. In some cases, it is done as an outpatient procedure. In other cases, you may need to spend a night in the hospital.

A small incision (cut) is made in your groin area. A tube called a catheter is passed through the large artery there until it reaches the small arteries that supply the uterus with blood. Tiny particles (about the size of grains of sand) are injected through the catheter into these arteries. The particles cut off the blood flow to the fibroid and cause it to shrink. The procedure works even if you have more than one fibroid.

Many women have cramping for a few hours after the procedure. Some women have nausea or fever. Medicine often can help treat these symptoms.

Complications are not common and include infection and uterine injury. Most women will resume regular menstrual periods shortly after the procedure. For women older than 50 years, about 4 in 10 will not have menstrual periods return after UAE.

The effect of UAE on future pregnancies is not clear. Women who have had UAE may be at greater risk for ***placenta*** problems during pregnancy. Women who want to have children may want to consider other forms of treatment.

Hysterectomy

Hysterectomy is the removal of the uterus. The ovaries may or may not be removed. For this procedure, the uterus may be removed through a cut in the abdomen or through the vagina. The method used depends on the size of the fibroids. For pain relief, you may be given general anesthesia, which puts you to sleep, or regional anesthesia, which blocks out feeling in the lower part of your body. You may need to stay in the hospital for a few days after this procedure.

Hysterectomy may be needed if

- pain or abnormal bleeding persists
- fibroids are very large
- other treatments are not possible

If your health care professional thinks you need a hysterectomy, he or she will first rule out other problems with the uterus, such as diseases of the uterine lining. A woman is no longer able to have children after having a hysterectomy.

Magnetic Resonance Imaging-Guided Ultrasound Surgery

In this new approach, ultrasound waves are used to destroy fibroids. The waves are directed at the fibroids through the skin with the help of magnetic resonance imaging. Whether this approach provides long-term relief is currently being studied.

Finally...

Uterine fibroids are benign growths that occur quite often in women. Fibroids may cause no symptoms and require no treatment. Sometimes, however, they need to be treated.

If you have uterine fibroids or have had them in the past, you should be checked by your health care professional on a regular basis. Getting regular checkups and being alert to warning signs will help you be aware of changes that may require treatment.

Glossary

Anemia: Abnormally low levels of red blood cells in the bloodstream. Most cases are caused by iron deficiency (lack of iron)

Cesarean Birth: Birth of a fetus from the uterus through an incision made in the woman's abdomen.

Estrogen: A female hormone produced in the ovaries.

Hysterectomy: Surgery to remove the uterus.

Hysterosalpingography: A special X-ray procedure in which a small amount of fluid is placed in the uterus and fallopian tubes to find abnormal changes or see if the tubes are blocked.

Hysteroscopy: A procedure in which a lighted telescope is inserted into the uterus through the cervix to view the inside of the uterus or perform surgery.

Intrauterine Device (IUD): A small device that is inserted and left inside the uterus to prevent pregnancy.

Laparoscopy: A surgical procedure in which a thin, lighted telescope called a laparoscope is inserted through a small incision (cut) in the abdomen. The laparoscope is used to view the pelvic organs. Other instruments can be used with it to perform surgery.

Laparotomy: A surgical procedure in which an incision is made in the abdomen.

Menopause: The time when a woman's menstrual periods stop permanently. Menopause is confirmed after 1 year of no periods.

Menstruation: The monthly shedding of blood and tissue from the uterus that happens when a woman is not pregnant.

Osteoporosis: A condition of thin bones that could allow them to break more easily.

Pelvic Exam: A physical examination of a woman's pelvic organs.

Placenta: An organ that provides nutrients to and takes waste away from the fetus.

Progesterone: A female hormone that is made in the ovaries and prepares the lining of the uterus for pregnancy.

Progestin: A synthetic form of progesterone that is similar to the hormone made naturally by the body.

Resectoscope: A slender telescope with an electrical wire loop or roller-ball tip used to remove or destroy tissue.

Sonohysterography: A procedure in which sterile fluid is injected into the uterus through the cervix while ultrasound images are taken of the inside of the uterus.

Ultrasonography: A test in which sound waves are used to examine inner parts of the body. During pregnancy, ultrasonography can be used to check the fetus.

Uterus: A muscular organ in the female pelvis. During pregnancy this organ holds and nourishes the fetus.

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