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Sterilization for Women and Men

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This pamphlet explains

- methods of sterilization for both women and men
- choosing a sterilization method
- making the decision

Sterilization for Women

Tubal sterilization involves closing off the **fallopian tubes**. Tubal sterilization prevents the egg from

moving down the fallopian tube to the uterus and keeps the sperm from reaching the egg. Sterilization does not affect a woman's menstrual cycle.

There are several methods of tubal sterilization. Each method has risks and benefits. You and your health care provider can discuss all of the available methods and choose the one that best fits your needs. Sterilization does not protect against **sexually transmitted diseases (STDs)**, including **human immunodeficiency virus (HIV)**. A male or female condom should be used to protect against these infections if you are at risk of getting an STD.

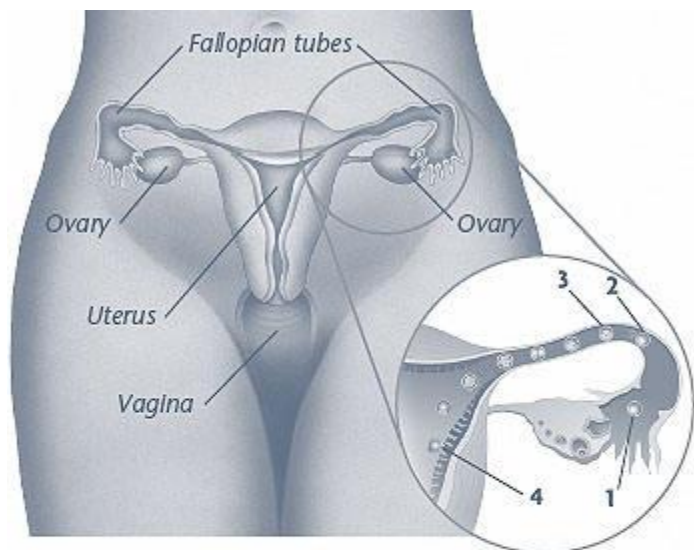
Tubal Ligation

Tubal ligation is a surgical procedure in which the fallopian tubes are closed off by being cut and tied, closed shut with bands or clips, or sealed with an electric current. Tubal ligation is effective right away, meaning that other forms of birth control are no longer needed.

Tubal ligation is a highly effective method of birth control. Less than 1 woman out of 100 who have the procedure will become pregnant in the first year. However, in women who have had the procedure and get pregnant, up to one third of the pregnancies are ectopic. Call your health care provider if you miss a menstrual period after the procedure and think you might be pregnant.

Tubal ligation surgery commonly is done in two different ways: **minilaparotomy** or **laparoscopy**. Both are surgical procedures that are performed with **anesthesia**:

How Pregnancy Occurs

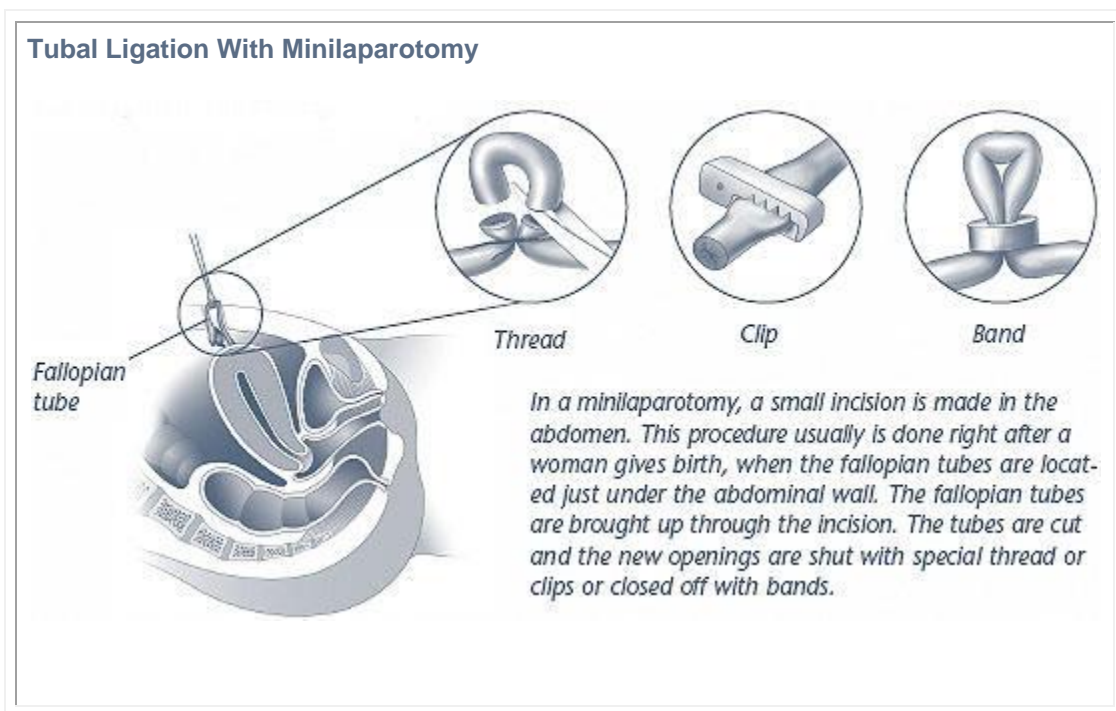


Each month during ovulation, an egg is released (1) and moves into one of the fallopian tubes. If a woman has sex around this time, and an egg and sperm meet in the fallopian tube (2), the two may join. If they join (3), the fertilized egg then moves through the fallopian tube into the uterus and attaches there to grow during pregnancy (4). In tubal sterilization, the fallopian tubes are closed off, preventing the egg from moving down the tube and blocking sperm from reaching the egg.

1. Minilaparotomy—In a minilaparotomy, a small incision is made in the abdomen. The fallopian tubes are brought up through the incision. They then are cut and closed with special thread or closed off with bands or clips. Minilaparotomy is commonly used when a woman chooses to have tubal sterilization right after a vaginal delivery. After a woman gives birth, the fallopian tubes and the still-enlarged uterus are located just under the abdominal wall below the navel. For

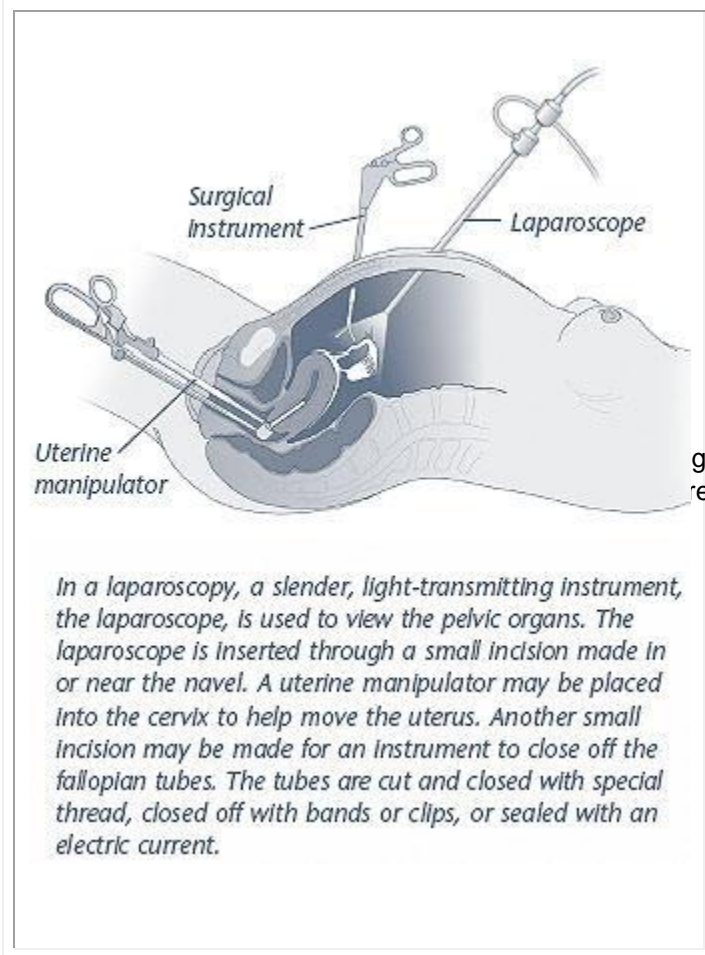
women who have had a **cesarean delivery**, tubal ligation can be done through the same incision that was made for delivery of the baby.

2. Laparoscopy—Laparoscopy is the most common way that sterilization is performed in the United States. In a laparoscopy, a slender, light-transmitting instrument, the laparoscope, is used to view the pelvic organs or perform surgery. The laparoscope is inserted through a small incision made in or near the navel. Another small incision may be made for an instrument used to hold the fallopian tubes. The tubes then are cut and closed with special thread or closed off with bands or clips. They also can be sealed with an electric current. In general, recovery time from laparoscopic sterilization is shorter than that from a minilaparotomy. It usually is performed as outpatient surgery, and you can go home the same day.



Risks. In general, tubal sterilization is a safe form of birth control. It has a low risk of death and complications. The most common complications are those that are related to **general anesthesia**. Other risks include bleeding and infection. If laparoscopy is used, risks include injury to the bladder or bowel from the instruments. If an electric current is used to seal the fallopian tubes, there is a risk of burn injury to the skin or bowel.

Tubal Ligation With Laparoscopy



Recovery. Side effects after surgery vary and may depend on the type of anesthesia used and the way the surgery is performed. You likely will have some pain in your abdomen and feel tired. The following side effects also can occur but are not as

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breathing tube if general anesthesia was used)

common:

Most or all of these symptoms usually go away within 1–3 days. Discomfort can be relieved with pain medication. If discomfort does not go away after a few days or gets worse, call your health care provider. If you have fever or severe pain, call your health care provider right away.

Hysteroscopic Sterilization

Hysteroscopic Sterilization

Hysteroscopic sterilization involves placing a small device—a soft insert or a small coil—into each fallopian tube using a technique called **hysteroscopy**. The devices cause scar tissue to form, which blocks the fallopian tubes and prevents the egg from being fertilized. It takes about 3 months after the procedure for the tubes to become completely blocked. During this time, you can become pregnant, and you will need to use another form of birth control. Three months after hysteroscopic sterilization you will have **hysterosalpingography**, an X-ray procedure, to make sure that the fallopian tubes are blocked.

Of 100 women who have hysteroscopic sterilization and in whom both fallopian tubes are blocked, the number of women who become pregnant in the first year is less than two for the insert and less than one for the coil.

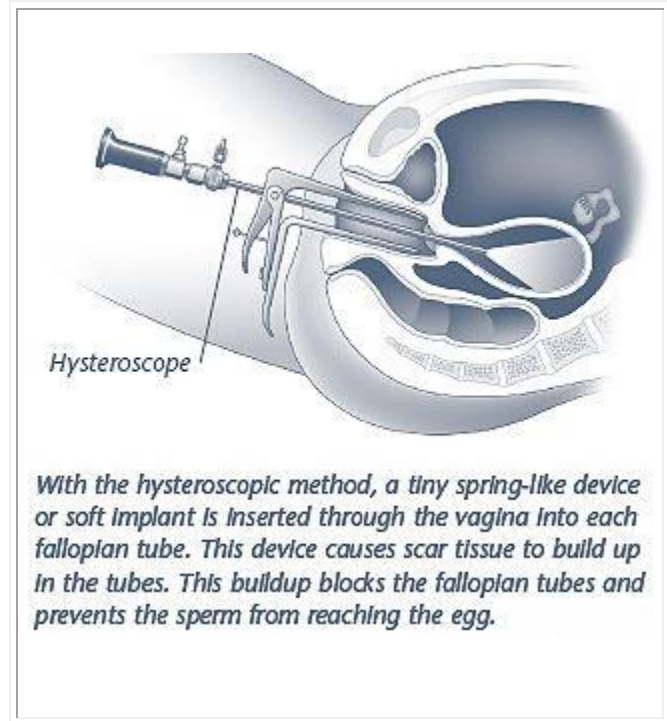
This procedure can be performed in a health care provider's office or clinic. It does not require an abdominal incision or general anesthesia and avoids the complications associated with both. It can be done beginning 3 months after childbirth. There is a risk that the devices will only be able to be placed in one of the fallopian tubes. Even when the devices are placed in both tubes, there is a risk that one or both tubes will not be completely blocked. In these cases, the procedure cannot be relied on for birth control, and another method must be used.

Sterilization for Men

The man provides the sperm that fertilizes the woman's egg. Sperm are made in the man's **testes**. They leave the testes through small tubes called the **vas deferens**, or vasa. These tubes carry the sperm to a larger tube in the penis called the urethra. As sperm travel through the vasa, they mix with fluid from the **seminal vesicles** and prostate gland. This mixture of sperm and fluid is called **semen**. When the man ejaculates (climaxes) during sex, semen travels out through the penis and into the woman's vagina.

In a vasectomy, the vasa are tied, cut, clipped, or sealed to prevent the release of sperm. This prevents a woman's egg from being fertilized with the man's sperm.

Vasectomy is highly effective—less than 1 out of 100 vasectomies performed fail to prevent pregnancy. The most common cause of failure is unprotected sex too soon after

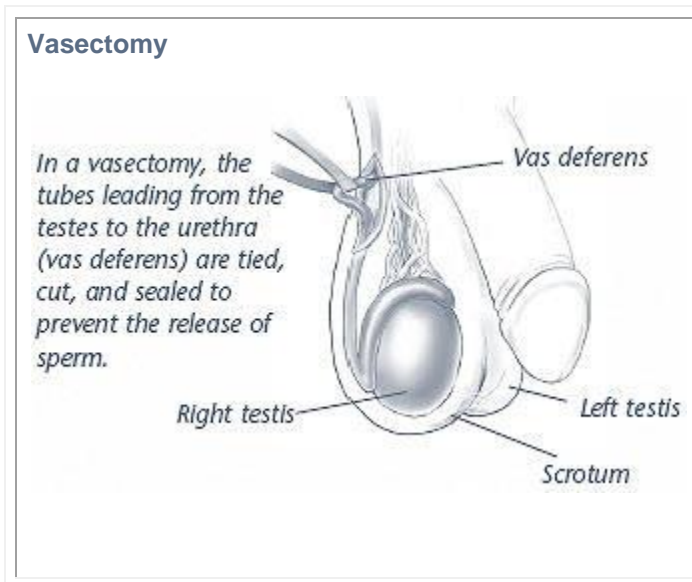


the procedure. Vasectomy should be thought of as permanent. As with sterilization of women, vasectomy does not protect against STDs.

Risks of vasectomy include minor bleeding and infection. Major complications are rare. Vasectomy has not been shown to cause prostate cancer or testicular cancer.

How Vasectomy Is Performed

A vasectomy may be done in a doctor's office, clinic, or hospital. The man can go home the same day.



After cleaning the **scrotum**, the doctor locates each vas in the scrotum. Each side of the scrotum is numbered with **local anesthesia**. One or two small openings are then made into the skin of the scrotum. Each vas is pulled through the opening until it forms a loop. A small section is cut out of the loop and removed. The two ends are tied and may be sealed with heat. This causes scar tissue to grow to block the tubes. Each vas is then placed back in the scrotum.

A “no-scalpel” technique for vasectomy also can be done. In this procedure, the vas deferens is cut the same way, but instead of making an incision, a special tool is used to puncture the scrotum in one place. No stitches are needed after the procedure. Patients have less pain afterward, and recovery time is shortened.

Recovery

After the surgery, the following steps are recommended to speed recovery:

- Rest
- Applying ice packs to the scrotum
- Wearing an athletic supporter (“jock strap”)

For 2–3 days after the procedure, there may be some swelling and discomfort in the scrotum. If these symptoms last for more than a few days, or if there is fever, severe pain, or other symptoms, the man should call his health care provider.

After the Procedure

A vasectomy is not effective right away. Some sperm still may be in the tubes. For this reason, a couple must use another method of birth control until the man returns to his

health care provider or clinic for a final sperm count (in which the number of sperm in a semen sample are counted). It takes about 1–3 months for the semen to become totally free of sperm.

After a vasectomy, a man's sexual function does not change. A man can have sex again as soon as he feels ready. He can have an erection and ejaculate normally. Because sperm normally make up only 5% of semen, there will be little change in the amount of fluid that is released.

Choosing a Sterilization Method

Deciding on a method of sterilization involves considering the following factors:

- Personal choice
- Physical factors, such as weight
- Medical history

Sometimes previous surgery, obesity, or other conditions may affect which method can be used. You should be fully aware of the risks, benefits, and other options before making a choice.

Vasectomy generally is considered to be safer than tubal ligation because it is not as invasive and requires only local anesthesia. Also, there is no increased risk of ectopic pregnancy if the vasectomy fails. The effectiveness of vasectomy and tubal ligation in preventing pregnancy is similar.

Check whether your health insurance covers sterilization procedures. There may be waiting periods after consent forms are signed, or there may be certain age requirements. Ask your health care provider or insurance provider if you have questions.

Making the Decision

Sterilization should be thought of as permanent. Before having the procedure, you must be certain that you do not want children in the future. Choosing to have sterilization is a major decision. You should avoid making this choice during times of stress (such as during a divorce or after losing a pregnancy). You also should not make this choice under pressure from a partner or others. Research has shown that women younger than 30 years are more likely than older women to regret having the procedure.

If you choose to have a sterilization procedure and you change your mind after the operation, attempts to reverse it may not work. After tubal sterilization is reversed, many women are still not able to get pregnant. Also, the risk of problems such as ectopic pregnancy is increased. Some women who have been sterilized choose to undergo ***in vitro fertilization*** instead of having the procedure reversed.

If you are not sure you want to be sterilized, there are a number of long-acting methods of birth control that allow you to become pregnant when you stop using them. For example, the **intrauterine device** and the birth control implant are about as effective in preventing pregnancy as tubal ligation and last for several years. Another option, the birth control injection, is given every 3 months. About 3 women out of 100 will become pregnant during the first year of typical use of the injection.

Finally...

Sterilization is a permanent means of birth control for both women and men. If you have any questions or concerns about having sterilization done, discuss them with your health care provider. All of your questions should be answered before the procedure.

Glossary

Anesthesia: Relief of pain by loss of sensation.

Cesarean Delivery: Delivery of a baby through incisions made in the mother's abdomen and uterus.

Ectopic Pregnancy: A pregnancy in which the fertilized egg begins to grow in a place other than inside the uterus, usually in the fallopian tubes.

Fallopian Tubes: Tubes through which an egg travels from the ovary to the uterus.

General Anesthesia: The use of drugs that produce a sleep-like state to prevent pain during surgery.

Human Immunodeficiency Virus (HIV): A virus that attacks certain cells of the body's immune system and causes acquired immunodeficiency syndrome (AIDS).

Hysteroscopic Sterilization: A sterilization procedure in which a small device is placed into each fallopian tube that causes scar tissue to form. The scar tissue eventually blocks the tubes and prevents sperm from entering the fallopian tubes to fertilize an egg.

Hysteroscopy: A procedure in which a slender, light-transmitting device, the hysteroscope, is inserted into the uterus through the cervix to view the inside of the uterus or perform surgery.

Hysterosalpingography: A special X-ray procedure in which a small amount of fluid is placed into the uterus and fallopian tubes to detect abnormal changes in their size and shape or to determine whether the tubes are blocked.

In Vitro Fertilization: A procedure in which an egg is removed from a woman's ovary, fertilized in a dish in a laboratory with the man's sperm, and then reintroduced into the woman's uterus to achieve a pregnancy.

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

Laparoscopy: A surgical procedure in which a slender, light-transmitting instrument, the laparoscope, is used to view the pelvic organs or perform surgery.

Local Anesthesia: The use of drugs that prevent pain in a part of the body.

Minilaparotomy: A small abdominal incision used for a sterilization procedure in which the fallopian tubes are closed off.

Semen: A fluid made in the male reproductive organs that consists of sperm and fluid from the prostate gland and the seminal vesicles.

Scrotum: The external genital sac in the male that contains the testes.

Seminal Vesicles: A pair of pouch-like glands on each side of the male's bladder that secrete semen.

Sexually Transmitted Disease (STD): A disease that is spread by sexual contact, including chlamydia, gonorrhea, human papillomavirus infection, herpes, syphilis, and infection with human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Testes: Two male organs that produce sperm and the male sex hormone testosterone.

Tubal Sterilization: A method of female sterilization in which the fallopian tubes are closed by banding, clipping, sealing with electric current, or blocking with a device.

Vas Deferens: A small tube that carries sperm from the male testes to the prostate gland.

Vasectomy: A method of male sterilization in which a portion of the vas deferens is removed.

This Patient Education Pamphlet was developed by the American College of Obstetricians and Gynecologists. Designed as an aid to patients, it sets forth current information and opinions on subjects related to women's health. The average readability level of the series, based on the Fry formula, is grade 6–8. The Suitability Assessment of Materials (SAM) instrument rates the pamphlets as “superior.” To ensure the information is current and accurate, the pamphlets are reviewed every 18 months. The information in this pamphlet does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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