

Sterilization for Women and Men

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What is sterilization?

Sterilization is a permanent method of birth control. It is the most popular form of birth control worldwide.

What is tubal sterilization?

Sterilization procedures for women are called **tubal sterilization**. 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. It does not affect a woman's menstrual cycle or sexual function.

Does tubal sterilization prevent sexually transmitted diseases (STDs)?

Sterilization does not protect against **sexually transmitted diseases (STDs)**, including **human immunodeficiency virus (HIV)** (see the FAQ How to Prevent Sexually Transmitted Diseases).

What is 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.

How effective is tubal ligation?

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.

How is tubal ligation performed?

Tubal ligation surgery commonly is done in two different ways: minilaparotomy or laparoscopy:

- Minilaparotomy is commonly used when a woman chooses to have tubal sterilization right after a vaginal delivery. 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. 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.
- In a laparoscopy, a slender, light-transmitting instrument, 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.

What are the risks of tubal ligation?

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.

What are the side effects of tubal ligation?

You likely will have some pain in your abdomen and feel tired. The following side effects also can occur but are not as common:

- Dizziness
- Nausea
- Shoulder pain
- Abdominal cramps
- Gassy or bloated feeling
- Sore throat (from the breathing tube if general anesthesia was used)

What is 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, another form of birth control must be used. After 3 months, an X-ray procedure called **hysterosalpingography**, is done to make sure that the fallopian tubes are blocked.

How effective is hysteroscopic sterilization?

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 2 for the insert and less than 1 for the coil.

How does hysteroscopic sterilization differ from tubal ligation?

Hysteroscopic sterilization 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.

What are the risks of hysteroscopic sterilization?

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.

What type of sterilization is available for men?

The sterilization procedure for men is called a *vasectomy*. In a vasectomy, each *vas deferens* is tied, cut, clipped, or sealed to prevent the release of sperm. A vasectomy is not effective right away. 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. He can have an erection and ejaculate normally.

How is vasectomy performed?

Each side of the **scrotum** is numbed with **local anesthesia**. One or two small openings are then made into the skin of the scrotum. Each vas deferens 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 deferens then is placed back in the scrotum.

How effective is vasectomy?

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. As with sterilization of women, vasectomy does not protect against STDs.

What are the risks of vasectomy?

Risks of vasectomy include minor bleeding and infection.

What is the "no-scalpel" technique for vasectomy?

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.

Glossary

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

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).

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.

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.

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.

Sexually Transmitted Diseases (STDs): Diseases that are 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]).

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: One of two small tubes 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.

If you have further questions, contact your obstetrician-gynecologist.

FAQ011: Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information 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 institution or type of practice, may be appropriate.

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