

PATIENT EDUCATION



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

Sterilization for Women and Men

Sterilization is a permanent method of birth control. It is the most popular form of birth control in the United States. Sterilization procedures for women are called **tubal ligation**. The procedure for men is called **vasectomy**. Sterilization is considered a safe procedure with few complications. This pamphlet explains

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

Sterilization for Women

Tubal ligation closes off the **fallopian tubes**. This prevents the **egg** from moving down the fallopian tube and keeps the **sperm** from reaching the egg. There are two ways that sterilization for women can be performed: **minilaparotomy** and **laparoscopy**.

Each method has risks and benefits. You and your health care professional can discuss the options and choose the timing and method that best fit your needs (see "Choosing a Sterilization Method").

Sterilization is a highly effective way to prevent pregnancy. Fewer than 1 out of 100 women will get pregnant within 1 year of having the procedure.

Sterilization does not protect against **sexually transmitted infections (STIs)**, 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 STI.

You will still have menstrual periods after a sterilization procedure. In the rare chance pregnancy does occur after tubal sterilization, there is an increased risk that it will be an **ectopic pregnancy**. But the risk

of ectopic pregnancy occurring in women after tubal sterilization is lower than in women who do not use any birth control.

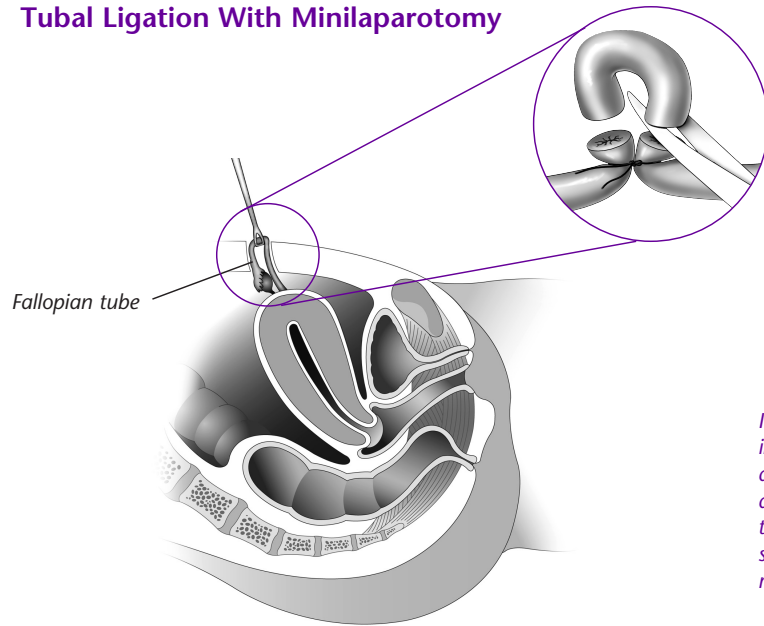
Minilaparotomy

In this surgical procedure, a small incision (cut) is made in the abdomen. The fallopian tubes are brought up through the incision. A small section of each tube is removed, or both tubes can be removed completely. Less often, clips are used to close off the tubes.

This approach often is used when a woman chooses sterilization after a vaginal birth. This is called **postpartum sterilization**. After a woman gives birth, the fallopian tubes and the still-enlarged **uterus** are located just below the belly button. Postpartum sterilization ideally is done before the uterus returns to its normal location. This usually happens within a few hours or days after delivery.

Minilaparotomy usually is done under **general anesthesia** or **regional anesthesia**. Postpartum sterilization for a woman having a **cesarean birth** usually is done at the time of delivery through the same incision used for the birth of the baby.

Tubal Ligation With Minilaparotomy



In a minilaparotomy, a small incision (cut) is made in the abdomen. This procedure usually is done right after a woman gives birth, when the fallopian tubes are located just under the belly button. The fallopian tubes are brought up through the incision. A small section of each tube is removed, or both tubes are removed.

Benefits. It is effective right away. You do not need to use a backup method of birth control.

Risks. As with any type of surgery, there is a risk of bleeding, problems with wound healing, infection, and complications from the anesthesia used. Other organs in the pelvis can be injured during the surgery. Your risk of these complications is increased if you also have a serious health condition. Health conditions may include *diabetes mellitus*, obesity, or a previous abdominal or pelvic surgery.

Laparoscopy

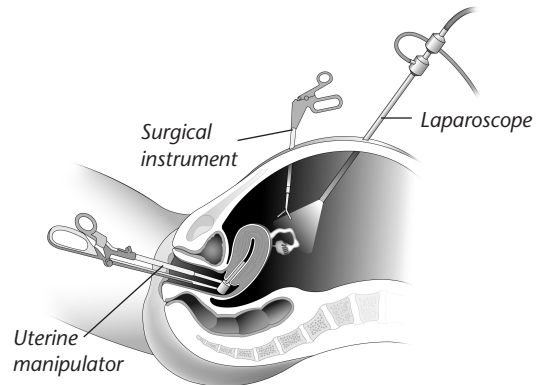
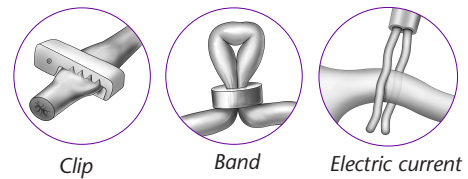
If you choose to have sterilization done at a time that is unrelated to a recent pregnancy, it may be done with laparoscopy. Laparoscopy is a way of doing surgery using small incisions. It is typically done with general anesthesia.

A device called a *laparoscope* is inserted through a small incision made in or near the belly button. The laparoscope allows the pelvic organs to be seen. The fallopian tubes are closed off using instruments passed through the laparoscope or with another instrument inserted through a second small incision. The tubes can be blocked with bands, clips, or an electric current. A small section of each tube can be removed, or both tubes can be removed completely.

Benefits. In general, recovery time for laparoscopic sterilization is short. It usually is done as outpatient surgery, so you can go home the same day if there are no problems. It is effective right away.

Risks. Laparoscopy has the same surgical risks as minilaparotomy, but there is an additional risk of injury to other organs with the instruments used.

Tubal Ligation With Laparoscopy



In a laparoscopy, a thin, lighted device called a laparoscope is used to view the pelvic organs. The laparoscope is inserted through a small incision (cut) made in or near the belly button. A uterine manipulator may be placed into the cervix to help move the uterus. Another small incision may be made for an instrument to block the fallopian tubes. The tubes are cut and tied with special thread, blocked with bands or clips, or sealed with an electric current. Both tubes also can be removed.

Sterilization for Men

The *vas deferens* is one of two tubes that carry sperm from the *testicles*. Sperm becomes part of a man's *semen*. In a vasectomy, the vas deferens tubes are tied, cut, clipped, or sealed to prevent the release of sperm into the semen. This prevents a woman's egg from being fertilized with the man's sperm.

After a vasectomy, a man's sexual function does not change. Because sperm normally make up only 5% of semen, there will be little change in the amount of fluid that is released.

The effectiveness of vasectomy in preventing pregnancy after 1 year is slightly higher than that of female sterilization. As with female sterilization, vasectomy does not protect against STIs.

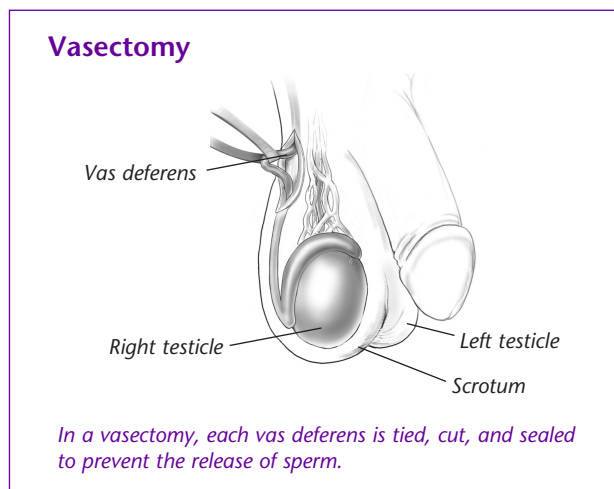
A vasectomy may be done in a doctor's office, clinic, or hospital. *Local anesthesia* is used for pain relief. One or two small openings are made in the skin of the *scrotum*. Each vas deferens is pulled through the opening until it forms a loop. A small section is cut out of the loop and removed. The two ends are tied and may be sealed with heat. This causes scar tissue to grow and block the tubes. Each vas deferens then is placed back into the scrotum. The man can go home the same day if there are no complications.

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.

A vasectomy is not effective right away because some sperm still may be in the tubes at the time of the procedure. It takes about 2–4 months for the semen to become totally free of sperm. A couple must use another method of birth control or avoid *sexual intercourse* until a sperm count confirms that no sperm are present. In this test, the number of sperm in a semen sample is counted.

Benefits

Vasectomy generally is considered to be safer than female sterilization and requires only local anesthesia.



Also, there is no increased risk of ectopic pregnancy if the vasectomy fails.

Risks

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

Choosing a Sterilization Method

Choosing a sterilization method involves learning about the methods and making the best choice for you. If you have a male partner, you may want to discuss vasectomy. Sometimes previous surgery, obesity, or other conditions affect which methods can be used. You should be aware of the risks and benefits of all options before making a choice.

You also should think about when to have sterilization. Postpartum sterilization can be convenient because it can be done when you already are in the hospital after giving birth. If you have a cesarean birth, sterilization can be done using the same incision. If you have a vaginal delivery, you will need a minilaparotomy.

Anesthesia is used during the surgery whether you had a cesarean delivery or a vaginal delivery. Female sterilization with minilaparotomy or laparoscopy can be done immediately after an abortion if there are no complications. Vasectomy can be done at any time.

If you want to have postpartum sterilization, take the following steps:

- Check whether your health insurance covers sterilization procedures.
- Ask if there is a waiting period after consent forms are signed.
- A few months in advance, make sure that sterilization procedures are offered at the hospital where you are planning to give birth to your baby. Not all hospitals offer postpartum sterilization.

Making the Decision

Sterilization is permanent birth control. It is not meant to be reversible. Before having the procedure, you (and your partner, if appropriate) must be sure that you do not want children in the future.

If you have a sterilization procedure and you change your mind after the operation, you can have surgery to try to reverse it. You also can try *assisted reproductive technology (ART)* to attempt pregnancy. These procedures are expensive and may not be covered by insurance. There also is no guarantee that you will be able to get pregnant afterward.

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. Most women who choose sterilization do not regret their decision. But if

you are younger than 30 years, you are more likely to regret having sterilization than women who are older.

If you are not sure you want to be sterilized, there are long-acting methods of birth control that allow you to become pregnant when you stop using them. For example, the **intrauterine device (IUD)** and the **birth control implant**

- are as effective at preventing pregnancy as female sterilization
- are safer than sterilization
- last for several years
- can be removed at any time if you wish to get pregnant

Your health care professional can discuss all of the different types of birth control and help you choose one that fits your needs.

Finally...

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

Glossary

Assisted Reproductive Technology (ART):

Treatments or procedures that are done to start a pregnancy. This may include handling eggs and sperm or embryos.

Birth Control Implant: A small, single rod that is inserted under the skin in the upper arm. The implant releases a hormone to prevent pregnancy.

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

Diabetes Mellitus: A condition in which the levels of sugar in the blood are too high.

Ectopic Pregnancy: A pregnancy in a place other than the uterus, usually in one of the fallopian tubes.

Egg: The female reproductive cell made in and released from the ovaries. Also called the ovum.

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

General Anesthesia: The use of drugs that create 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. If left untreated, HIV can cause acquired immunodeficiency syndrome (AIDS).

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

Laparoscope: A thin, lighted telescope that is inserted through a small incision (cut) in the abdomen to view internal organs or to perform surgery.

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.

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

Minilaparotomy: A small abdominal cut used for a surgery in which the fallopian tubes are closed off as a form of permanent birth control.

Postpartum Sterilization: A permanent procedure that prevents a woman from becoming pregnant, done soon after the birth of a child.

Prostate Gland: A male gland that makes most of the fluid for ejaculation.

Regional Anesthesia: The use of drugs to block sensation in a region of the body.

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

Semen: The fluid made by male sex glands that contains sperm.

Sexual Intercourse: The act of the penis of the male entering the vagina of the female. Also called "having sex" or "making love."

Sexually Transmitted Infections (STIs): Infections that are spread by sexual contact. Infections include chlamydia, gonorrhea, human papillomavirus (HPV), herpes, syphilis, and human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Sperm: A cell made in the male testicles that can fertilize a female egg.

Sterilization: A permanent method of birth control.

Testicles: Paired male organs that make sperm and the male sex hormone testosterone. Also called "testes."

Tubal Ligation: Blocking of the fallopian tubes.

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

Vas Deferens: One of two small tubes that carries sperm from each male testicle to the prostate gland.

Vasectomy: A permanent birth control method for men. In this procedure, a portion of the tube that carries sperm is removed.

This information was designed as an educational aid to patients and sets forth current information and opinions related to women's health. It is not intended as a statement of the standard of care, nor does it comprise all proper treatments or methods of care. It is not a substitute for a treating clinician's independent professional judgment. Please check for updates at www.acog.org to ensure accuracy.

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