PATIENT EDUCATION

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

Sterilization by Laparoscopy

Sterilization is a permanent method of birth control. It is the most popular form of birth control worldwide. In the United States, a common way sterilization is performed in women is with ***laparoscopy****. Laparoscopy is a way of doing surgery. It usually results in a fast recovery and few complications.*

This pamphlet explains

- *sterilization for women*
- *how laparoscopic sterilization is performed*
- *benefits and risks*
- *follow-up care*
- *choosing a sterilization method and making the decision*

Sterilization for Women

Sterilization for women is called ***tubal sterilization***. In tubal sterilization, the ***fallopian tubes*** are removed or blocked by being cut and tied with special thread, closed shut with bands or clips, or sealed with an electric current or scar tissue. Tubal sterilization prevents the ***sperm*** from reaching the ***egg***.

Tubal sterilization can be done with a ***minilaparotomy*** or with laparoscopy. Both ways are highly effective in preventing pregnancy.

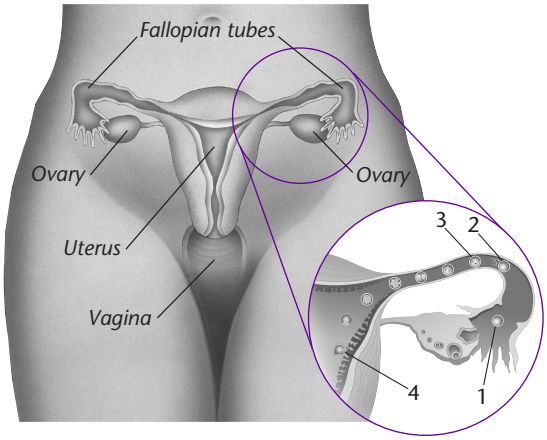
Tubal sterilization does not protect against ***sexually transmitted infections (STIs)***, including ***human immunodeficiency virus (HIV)***. Women at risk of STIs should use a male or female condom to protect against these infections. Sterilization does not affect a woman's ***menstrual cycle*** or sexual function.

How Laparoscopic Sterilization Is Performed

In laparoscopy, an instrument called a laparoscope is inserted through a small incision made in or near the navel. Another small incision may be made for an instrument used to close off or remove the fallopian tubes. The fallopian tubes can be closed off by bands or clips; cut and closed with special thread; or sealed with an electric current. Both fallopian tubes also can be removed completely. The laparoscope then is withdrawn. The incisions are closed with stitches or special tape.

Laparoscopic sterilization is performed under ***anesthesia***. The type of anesthesia used depends on your medical history, choice, and the advice of your health care professional. ***General anesthesia*** is most commonly used. With general anesthesia, you will

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)*.*

not be awake during the operation. A tube will be inserted in your throat while you are asleep to help you breathe.

Benefits and Risks

Sterilization by laparoscopy has a low risk of ***complications***. The most common complications are those related to general anesthesia, if it is used. Other risks include bleeding from the incisions made in the skin and infection.

Pregnancy is rare after sterilization. If pregnancy does occur, the risk of an ***ectopic pregnancy*** is higher than in women who did not have sterilization. In women who have had the procedure and get pregnant, up to one third of the pregnancies are ectopic.

Laparoscopy has some benefits over minilaparotomy. Recovery usually is quicker. There are fewer complications. It usually is performed as outpatient surgery, meaning that you can go home the same day.

There also are drawbacks of laparoscopic surgery. Compared with minilaparotomy, laparoscopy requires special skill on the part of the surgeon and special equipment. There is a risk of injury to the bowel, ***bladder***, or a major blood vessel. If an electric current is used to seal the fallopian tubes, there is a risk of burn injury to the skin or bowel.

Follow-up Care

After surgery, you will be observed for a short time to be sure that there are no problems. Most women can go home 2–4 hours after the procedure. You will need someone to take you home. You may feel some discomfort or have other symptoms that last a few days:

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

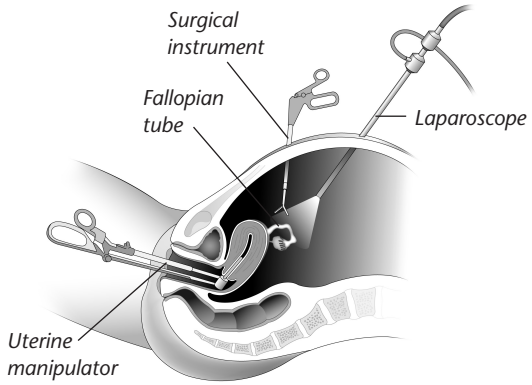
Most women return to their normal routines within 1 week of surgery. Contact your health care professional right away if you have a fever or severe pain in your abdomen. These symptoms could mean there is an infection or other problem.

Types of Tubal Sterilization

There are two ways that tubal sterilization can be performed:

1. Minilaparotomy—In this surgical procedure, 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; closed with clips; or removed completely.
   - This approach is commonly used when a woman has tubal sterilization within a few hours or days after a vaginal delivery.
   - Eight women out of 1,000 will become pregnant within 10 years of having the procedure.
   - It is done with general, regional, or local anesthesia.
2. Laparoscopy—A device called a laparoscope is inserted through a small incision made in or near the navel. The laparoscope allows the pelvic organs to be seen. The fallopian tubes are closed off or removed using instruments passed through the laparoscope or with another instrument inserted through a second small incision.
   - This approach is used when sterilization is done at a time unrelated to pregnancy.
   - Pregnancy rates within 10 years of having the procedure range from 18 women out of 1,000 to 37 women out of 1,000.
   - It can be performed as outpatient surgery.
   - It usually is done with general anesthesia.

Sterilization by Laparoscopy



In a laparoscopy, a slender, light-transmitting instrument, the laparoscope, is used to view the pelvic organs. The laparoscope is inserted through a small incision made in or near the navel. A uterine manipulator may be placed into the cervix to help move the uterus. Another small incision may be made for a surgical instrument to close off or remove the fallopian tubes.

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.

Male sterilization, or ***vasectomy***, generally is considered to be safer than tubal sterilization 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 sterilization in preventing pregnancy is similar.

Check with your health care professional about the timing of sterilization. There may be waiting periods after consent forms are signed. There may be certain age requirements. Also, check if your health insurance covers sterilization procedures.

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 sterilization and you change your mind after the operation, attempts to reverse it may not work. After tubal sterilization is reversed, many women still are 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 (IVF)*** instead of having the procedure reversed.

If you are not sure you want to be sterilized, there are a number of long-acting, highly effective 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 about as effective in preventing pregnancy as sterilization and last for several years. The birth control injection is given every 3 months and also is highly effective.

Finally…

Sterilization by laparoscopy is a good choice for women who no longer want to have children. It is meant to be permanent. If you have any questions or concerns about having sterilization, discuss them with your health care professional. All of your questions should be answered before the operation.

Glossary

Anesthesia: Relief of pain by loss of sensation.

Birth Control: Devices or medications used to prevent pregnancy.

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.

Bladder: A hollow, muscular organ in which urine is stored.

Complications: Diseases or conditions that happen as a result of another disease or condition. An example is pneumonia that occurs as a result of the flu. A complication also can occur as a result of a condition, such as pregnancy. An example of a pregnancy complication is preterm labor.

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.

In Vitro Fertilization (IVF): A procedure in which an egg is removed from a woman's ovary, fertilized in a laboratory with the man's sperm, and then transferred to the woman's uterus to achieve a 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.

Menstrual Cycle: The monthly process of changes that occur to prepare a woman's body for possible pregnancy. A menstrual cycle is defined as the first day of menstrual bleeding of one cycle to the first day of menstrual bleeding of the next cycle.

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

Obesity: A condition characterized by excessive body fat.

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.

Tubal Sterilization: A method of sterilization for women. The fallopian tubes are tied, banded, clipped, or sealed with electric current. The tubes also can be removed.

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

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

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