What You Should Know About **Contraceptive Surgery**

Every year, about 700,000 American women undergo sterilization by tubal ligation ("having your tubes tied"), making it one of the most popular forms of contraception. It's permanent, safe, and effective —but is it right for you?

What is contraceptive surgery?

Tubal ligation permanently prevents a woman from becoming pregnant. The fallopian tubes, which carry the eggs from the ovaries to the uterus, are blocked or cut and sealed off so the eggs can't reach the uterus and be fertilized by sperm. Instead, the eggs are reabsorbed by the body.

How is contraceptive surgery performed?

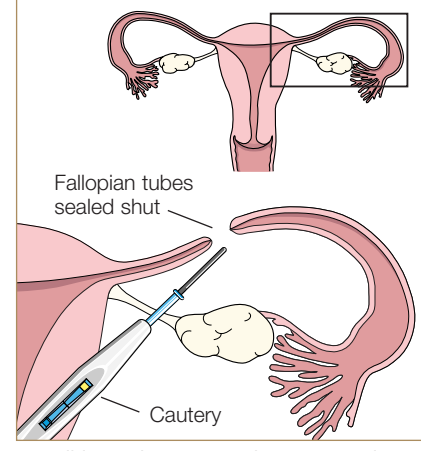
Tubal surgery is usually performed under general anesthesia as a same-day procedure. The fallopian tubes can be "pinched off" with clips or rings, cut and *sutured* (sewn) closed, or *coagulated* (scarred) closed using an electrical *cautery.* The surgery takes 30 to 60 minutes. A pregnancy test is administered beforehand, because a pregnant woman can't undergo sterilization. There are several types of surgery.

Laparoscopy.—This requires only a tiny incision at the navel (belly button). The abdomen is inflated with air or another gas, and the surgeon inserts a thin viewing tube (laparoscope) that is fitted with a light and a magnifying lens. The instrument used to cut, pinch off, or burn the tubes can be inserted beside the laparoscope or through another small incision. The surgeon looks through the laparoscope to perform the procedure, which leaves very small scars. Patients must be in good health, not greatly overweight, and have no pelvic abnormalities or disorders (such as endometriosis or pelvic inflammatory disease).

Laparotomy.—This uses the same methods for closing or cutting the fallopian tubes, but the abdomen is opened with a larger incision to give the surgeon a clear view of all of the organs. It may be preferable for women who need other abdominal procedures at the same time (such as cesarean delivery), and those who have had pelvic inflammatory disease, endo-metriosis, or prior abdominal surgery.

Minilaparotomy.—The incision for the "mini-lap" is made at the pubic hairline, and is less than 2 inches long. The fallopian tubes are pulled up into view, blocked or cut and sealed, and put back in place. The mini-lap may be a good choice for women who cannot undergo laparoscopy due to prior abdominal surgery or disease, and those for whom full laparotomy is too risky because of heart or respiratory conditions. It may not be appropriate for women who are obese or those with damaged fallopian tubes.

TUBAL LIGATION



Postpartum Tubal Ligation.—This is generally a minilaparotomy performed 24 to 36 hours after childbirth using an incision just below the navel.

With a laparoscopy or a minilaparotomy, you can usually resume normal activities within a week. If you had a laparoscopy, the gas used during the surgery may leave your stomach swollen for a day or cause temporary back or shoulder pain. There may be slight vaginal bleeding as well. You can have sexual intercourse as soon as you feel like it and it isn't painful (about one week after surgery). You may have cramping and a heavier menstrual flow for a few months if your tubes were sealed with a cautery. If you had been using birth control pills, your cycles may be irregular for a while.

Micro-inserts (Essure).—This procedure can be performed in the doctor's office or in an operating room. It doesn't require general anesthesia, and

This Patient Handout was prepared by Patricia L. Van Horn using materials from InteliHealth (http://www.intelihealth.com/), National Women's Health Resource Center (http://www.healthywomen.org/), Planned Parenthood Federation of America (http://www.plannedparenthood.org/), WebMD (http://my.webmd.com/), and iVillage (http://www.ivillage.com/)

takes 30 to 50 minutes. The insert consists of a tiny metal spring surrounding a Dacron thread, which stimulates the formation of scar tissue in the fallopian tube to create a blockage. A small tube (catheter) is passed through the vagina and opening of the uterus *(cervix),* and is then used to place the inserts in the fallopian tubes. Most patients can go home about 45 minutes after the procedure. You may experience mild cramping, pain, and nausea, but can usually resume normal activities in a day or so. This procedure may not be suitable for women who have had prior pelvic disease or surgery; are allergic to nickel; have only one fallopian tube; or recently underwent childbirth, abortion, or miscarriage. Also, a few women don't achieve complete blockage of both tubes. It takes about three months for scar tissue to form around the inserts, so you'll have to use another form of birth control during that time. Because Essure has only been available for a few years, there isn't much information about its safety yet.

What are the benefits of contraceptive surgery?

- The procedure is permanent.
- You won't need to remember to use birth control.
- Sexual intercourse can be spontaneous and worry-free.
- Hormone levels and menstrual cycles continue as usual.
- The surgery saves money in the long run because you'll never need to pay for pills, condoms, spermicide, contraceptive injections, or any form of birth control again, and it is usually covered by medical insurance.
- Tubal ligation may provide some protection against ovarian cancer.

Are there any risks associated with contraceptive surgery?

Tubal ligation is quite safe, with complications occurring in fewer than 1% of surgeries. The risks of surgery are greater for women who have diabetes, are overweight, smoke, or have a heart condition. Death is extremely rare—about four for every 100,000 procedures. Although there are fewer complications with laparoscopy, it is possible to cut or burn another pelvic organ or cut a major blood vessel, requiring "conversion" to a laparotomy to correct the problem or complete the sterilization.

In addition, women who have undergone tubal ligation are at higher risk of *ectopic pregnancy,* which is a pregnancy occurring outside the uterus. Signs include severe abdominal pain and spotting (especially after a missed or light menstrual period) and faintness or dizziness. This is an emergency that can cause severe hemorrhaging, so you should go to the hospital immediately if you have such symptoms.

Finally, remember that no form of contraceptive surgery can prevent sexually transmitted diseases. Therefore, if you have multiple sexual partners or a new partner, use condoms for protection whenever you have intercourse.

How effective is contraceptive surgery?

Tubal ligation is extremely effective, with a failure rate of less than 0.5%. However, three of every 100 patients will become pregnant within 10 years after surgery. Although information is still being collected about the Essure method, to date it has been 99.8% effective.

Can contraceptive surgery be reversed?

Tubal sterilization should be considered permanent. It can sometimes be reversed, but this doesn't guarantee that you'll be fertile again. The likelihood of successful pregnancy after reversal ranges from 30% to 88%, with an average chance of 50%.

In addition, reversal involves major surgery and hospitalization, and generally isn't covered by medical insurance. Surgeons won't perform a reversal if there's little chance of success, and about 50% of women who request one are refused.

Reversal is not advisable for women with Essure micro-inserts, and in-vitro fertilization would probably be required to achieve pregnancy. Also, it isn't known whether the inserts pose any risks to the patient, her fetus, or the pregnancy.

How do I know whether contraceptive surgery is right for me?

Tubal sterilization may be a good choice for a woman who:

- Is certain she doesn't want to have any children in the future, regardless of how her life may change (for example, death of a child, a new partner who wants children, loss of child custody).
- Has a partner who agrees that he/she doesn't want children.
- Has thoroughly considered other methods of birth control.
- Has health problems that would be complicated by pregnancy.
- Doesn't want to pass on a hereditary disorder.
- Has no medical problems that would make sterilization risky.

Tubal sterilization is probably a poor choice for women who:

- Are younger than 30 years, especially if they never had a child.
- Are having troubles that may be temporary, such as marriage or sexual difficulties, short-term mental or physical illness, or financial problems.
- Have just had a difficult pregnancy.
- Are in an unstable relationship.
- Are being pressured to have the surgery by their partner, family, or others.
- Haven't tried alternative methods of birth control.