Learn simply

Sterilization

Passion profession same

Couple requesting sterilization

- Couples requesting sterilization should be counseled about the nature, efficacy, safety, and complications of the various surgical procedures
- Couples should be made aware of alternative methods of contraception
- Couples should understand that such procedures are intended to be permanent[2]

Female sterilization[3]

- **Written consent should be obtained[4]**
- Tubal sterilization can be performed at cesarean delivery, immediately postpartum, postabortion or as an interval procedure unrelated to pregnancy
- Technique used depends largely on timing of the procedure

At cesarean delivery[5] | Immediately after vaginal delivery | Interval procedure

Minilaparotomy[5] | Laparoscopy[6]

Follow-up postoperative visit in 1–2 weeks[7]

If amenorrheic, women should check a pregnancy test[8]

Male sterilization (vasectomy)[9]

- **Written consent should be obtained[4]**
- Vasectomy is typically performed in 15 min on an outpatient basis under local anesthesia
- Follow-up postoperative visit in 1–2 weeks[10]
- Couples should be advised not to have unprotected intercourse until a postvasectomy semen analysis confirming aspermia[11]

Check postvasectomy semen analysis in 3–4 months to confirm the absence of sperm[11]

1. Sterilization refers to a surgical procedure that is aimed at permanently blocking or removing part of the female or male genital tract to prevent fertilization.
2. It is the most common method of family planning worldwide. Over 175 million couples worldwide use surgical sterilization for contraception, 90% of whom live in developing countries.
3. The ratio of female to male sterilization is 3:1.
4. Sterilization is designed to be permanent. That said, microsurgical tubal reanastomosis has good results if only a small segment of the tube has been damaged.
5. Pregnancy rates following tubal reanastomosis are low with electrocoagulation (because of the large extent of the damage) and higher with clips, rings, and surgical methods.
6. Vas deferens reanastomosis is a difficult and meticulous surgical procedure that has only a 50% success rate.
7. The strongest indicator of future regret is young age at the time of sterilization, regardless of parity or marital status. Consider obtaining a social service consult if the patient is young or has few children.
8. Female sterilization refers to permanent surgical interruption of the fallopian tubes bilaterally. The procedure is immediately effective.

1. State laws and/or insurance regulations often require a specific interval between obtaining consent and surgical sterilization.

2. The mini-laparotomy approach can be used in the interval, postabortion or postpartum period. Interval minilaparotomy is performed through a 2–3 cm sub-umbilical incision.
3. The abdomen is entered, the uterus is identified, and a finger is used to elevate the fallopian tube. After the tube has been identified by its fimbriated end, the mid-portion is grasped with a Babcock clamp.
4. Tubal occlusion is then performed.
5. If a segment of tube is removed, it should be sent to pathology to confirm a complete cross-section of the fallopian tube.
6. A similar procedure can be carried out following vaginal delivery (postpartum sterilization – PPS).
7. The latter procedure is ideally performed while the uterine fundus is high in the abdomen (typically within 48 hours of delivery).
8. Maternal and neonatal wellbeing should be confirmed prior to PPS.

1. Laparoscopic tubal ligation (LTL) is performed using one or more trocar instruments in addition to the umbilical camera site.
2. Advantages of the laparoscopic approach over other surgical procedures include a smaller skin incision, the opportunity to inspect the abdominal and pelvic organs, and a more rapid postoperative recovery. Techniques of tubal occlusion include the following:
3. Electrocoagulation: bipolar cautery is safer than unipolar cautery, which has the potential to cause thermal bowel injury.
4. Clips and rings: mechanical occlusion devices, such as the silicone rubber band (Falope ring) and the spring-loaded clip (Hulka clip, Filshie clip), are less commonly used for LTL. Special applicators are necessary and each requires skill for proper application. Clips and rings destroy less oviductal tissue than electrocoagulation. Tubal adhesions or a thickened or dilated fallopian tube increase the risk of misapplication of the clip.
5. Complications of tubal ligation are rare. The mortality rate (1–2 per 100,000 procedures in the United States) is lower than that for childbirth (10 per 100,000 births). Anesthetic complication is the leading cause of death. Other potential complications include hemorrhage, infection, erroneous ligation of the round ligament, and injury to adjacent structures. Overall, when the risk of pregnancy from contraceptive failure is taken into account, sterilization is the safest of all contraceptive methods.

1. The failure rate of tubal ligation is dependent upon the specific operation performed, the skill of the surgeon, and the characteristics of the patient (age, pelvic adhesions, hydrosalpinx). When sterilization failure occurs, the resultant pregnancy is more likely to be an ectopic (tubal) pregnancy.
2. Vasectomy involves permanent surgical interruption of the vas deferens (the duct that transports sperm during ejaculation) bilaterally. Pregnancy rates following vasectomy are <1%. When compared with female tubal sterilization, vasectomy is safer, less expensive, and equally effective.
3. Postoperative complications of vasectomy include wound hematomas, infections, and rarely sperm granulomas (<3%). Putative long-term side effects (increased risk of prostate cancer, decreased libido) have never been proven.
4. Unlike tubal occlusion in women, vasectomy is not immediately effective. Spermatozoa normally mature in the vas deferens for around 70 days prior to ejaculation. For this reason, at least 3 months or 20 ejaculations are needed to deplete the vas deferens entirely of viable sperm. Postvasectomy semen analysis should be performed to determine the effectiveness of the procedure prior to unprotected intercourse.