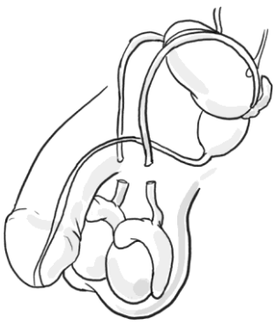
MALE VOLUNTARY SURGICAL CONTRACEPTION: VASECTOMY

WHAT IS MALE VOLUNTARY SURGICAL CONTRACEPTION?



It is a permanent method of contraception for men in which the vas deferens (the tube that serves as the passageway of sperm) is tied and cut or blocked through a small opening on the scrotal skin. This procedure is also known as vasectomy.

WHAT ARE THE DIFFERENT APPROACHES TO VASECTOMY?

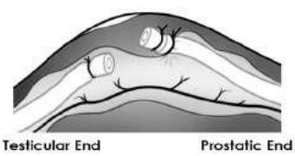
- Traditional/incisional vasectomy is a procedure in which a small midline or two lateral incisions are made in the scrotal skin using a scalpel.
- No-scalpel vasectomy (NSV) is a procedure in which a puncture wound is made at the midline of the scrotal skin using a vas dissecting forceps to reach both vas on either side. The advantages of this procedure (i.e., less pain and tissue trauma and shorter operating and recovery time) make it a highly preferable method.

Types of Vas Occlusion

After the vas has been delivered through the incision site, it can be occluded through the following approaches:

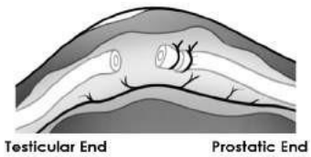
Fascial interposition

- After the vas is cut and tied, the fibrous tissue that covers it is pulled over one of the cut ends of the vas and tied. A barrier is thus created between the cut ends (i.e., testicular and prostatic) of the vas.
- This procedure improves the efficacy of contraception by providing additional safety against the entry of sperm cells into the ejaculate.



Open-ended

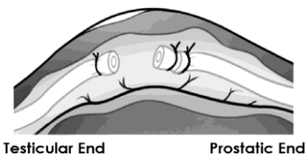
- One of the cut ends of the vas deferens is tied while the other is left open.
- In an open-ended procedure, the tube end connected to the testis is left open while the other that leads to the prostate is tied.
- This procedure is one of the popular types of vasectomy because of the low risk for complications.



- This method also inflicts the least amount of pain and discomfort to the client.

Close-ended

- The close-ended method refers to the closing or sealing of both the open ends of the vas deferens that have been cut.



HOW EFFECTIVE IS VASECTOMY?

- Vasectomy is 99.8% effective with perfect and typical use.
- However, full effectiveness can only be achieved three months after the procedure.
  Some pregnancies occur within the first year because the couple did not consistently and correctly use a backup method in the first three months before the vasectomy was fully effective.
- Clearing the male reproductive tract (vas, ejaculatory ducts, and urethra) of live sperm takes three months.

WHAT IS THE MECHANISM OF ACTION INVOLVED IN VASECTOMY?

Three months after the procedure, sperm is absent in the seminal fluid as a result of the blocking of the vas deferens. Hence, no fertilization can occur.

WHAT ARE THE ADVANTAGES OF VASECTOMY?

- Very effective three months after the procedure
- Permanent, safe, simple, and easy to perform
- Can be performed in a clinic, office, or at a primary care center [(Barangay Health Station(BHS)/Rural Health Unit (RHU)]
- No resupplies or repeated clinic visits
- No long-term health risks
- A reasonable option for couples whose female partner could not undergo permanent contraception
- Does not result in the loss of sexual ability, erection, and ejaculation
- Does not affect male hormonal function, erection, and ejaculation
- Does not lessen but may actually increase the couple's sexual drive and enjoyment
- Allows the client to have sex as before but without fear of getting his partner pregnant, which may also result in better sex

WHAT ARE THE DISADVANTAGES OF VASECTOMY?

- May be uncomfortable because of slight pain and swelling two to three days after the procedure
- Not effective immediately (clearing the male reproductive tract of live sperm takes three months)
- Difficult and expensive to reverse
- May cause bleeding, which may result in hematoma in the scrotum
- Can only be performed by a trained service provider
- May have recanalization of tubes (which is rare and unusual)
- Provides no protection against sexually transmitted infections (STIs), including human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS).

WHO CAN USE THE METHOD?

No medical condition absolutely restricts a man's eligibility for sterilization. However, some conditions and circumstances indicate that certain precautions should be taken. The World Health Organization (WHO) Medical Eligibility Criteria (MEC) provides an evidence-based classification of conditions into different categories of recommendations (Table 22).

Table 22. MEC categories for male sterilization

Accept the method in the following situations:
• High risk of HIV
• Infected with HIV
• Diagnosed with sickle cell disease
Use with caution in the following conditions:
• Young age
• Diagnosed with depressive disorders
• Diabetes
• Previous scrotal injury
• Large varicocele or hydrocele
• Cryptorchidism

WHO CANNOT USE THE METHOD?

The WHO MEC table and checklist for male sterilization are provided in Appendix E.

Delay the use in the following situations:

- Local infection
  - Scrotal skin infection
  - Active STI
  - Balanitis
  - Epididymitis or orchitis
- Systemic infection or gastroenteritis
- Filiariasis, elephantiasis
- Intrascrotal mass

Special consideration should be undertaken prior to surgery in the following conditions:

- Diagnosed with AIDS, on antiretroviral therapy
- Coagulation disorders
- Inguinal hernia

WHAT ARE THE STEPS IN CONDUCTING AN NSV PROCEDURE?

Before the procedure

No-scalpel vasectomy is performed by a trained physician in a clinic, primary care center, or hospital. Reinforce counseling on vasectomy as a permanent procedure. Assess the client as follows:

- Ask questions about the client's past and current health, including any medications taken within 24 hours before surgery.
- Perform physical and scrotal examinations.
- Check the WHO MEC recommendations for the client's conditions.

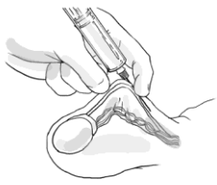
Ensure informed consent by

- Reinforcing counseling to avoid regrets and emphasizing that vasectomy is a permanent method.
- Explaining to the client the six elements of informed consent written on the Informed Consent Form.
- Checking that the Informed Consent Form is signed correctly by the client. Prepare

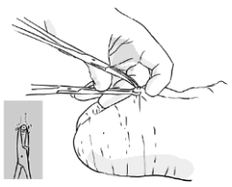
client for the procedure.

Actual procedure

1. Observe proper infection prevention practices at all times.
2. Feel the vas deferens underneath the scrotal skin, inject the full length of the needle, and administer approximately 2 cc. of 2% lidocaine. Repeat for the other vas.
3. Again, feel the vas deferens underneath the scrotal skin, and gently sweep the vas toward the midline, anesthetized area.
4. Grasp the vas with the ringed clamp.
5. Puncture the scrotal skin just above the grasped portion of the vas using dissecting forceps.



6. Expose the vas, deliver a loop of vas from the puncture site, tie the vas at two points, and cut a segment of vas between the ties.
7. Cover the cut end of the vas connected to the prostate with fascia.
8. Meticulously check for bleeding because hematoma formation is a common complication.



9. Let the vas fall back in place.
10. Feel the other vas, and sweep it toward the midline.
11. Grasp the vas with the ringed clamp, and perform the next steps as with the first vas.
12. Apply antiseptic to puncture site and cover with Band-aid strip.

After the procedure

Instruct the client to

- Take oral analgesics immediately before the anesthetic wanes as needed.
- Rest from heavy or strenuous work for two days.
- Wear tight fitting underwear or pants to relieve some pain, swelling, or bleeding.
- Keep wound dry and clean for the next two days.
- Abstain from unprotected sex for at least three months and after a sperm analysis shows the absence of live sperm.

Inform the client that

- He can resume sexual activity a week after the procedure or when he is comfortable, but he should use a condom or another contraceptive protection for three months after the procedure.
- He can choose to have a seminal fluid test performed after three months to verify whether sperm is still present in the semen.

Follow-up

The client is instructed to return to the clinic

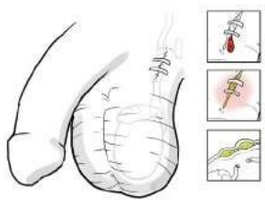
- Immediately for any signs of complications (see below).
- At any time when he has concerns about the procedure.
- Within two weeks to check for any postoperative problems.
- After three months for microscopic sperm check to confirm effectiveness of the procedure.

HOW ARE COMPLICATIONS OF VASECTOMY MANAGED?

Be aware of the warning signals and possible complications that may occur after the vasectomy. Instruct the client to return to the clinic immediately for further management when the warning signals occur.

- Bleeding or blood clots after the procedure
  - Reassure the client that minor bleeding and small uninfected blood clots usually disappear without treatment within a couple of weeks.
  - Large clots may need referral for surgical drain.
  - Infected blood clots require antibiotics and hospitalization.

- Redness, heat, pain, pus at the incision site as signs of infection
  - Clean the infected area with soap and water or antiseptic.
  - Give oral antibiotics for 7 to 10 days.
  - Instruct the client to return after taking all antibiotics if the infection has not cleared.



- Pus under the skin caused by infection (abscess)
  - Clean the area with antiseptic.
  - Open and drain the abscess.
  - Treat the wound.
  - Give oral antibiotics for 7 to 10 days.
  - Ask the client to return after taking all antibiotics and still the problem persists.
- Pain lasting for months
  - Suggest elevating the scrotum with supporter.
  - Suggest soaking in warm water.
  - Suggest pain relievers (e.g., mefenamic acid, ibuprofen, paracetamol, aspirin).
  - Provide antibiotics if infection is suspected.
  - If pain persists, refer to a specialist for further management.

WHAT COUNSELING TIPS SHOULD BE PROVIDED TO A CLIENT?

Considering the irreversibility or permanence of vasectomy, special care must be taken to ensure a voluntary informed choice by the client. Particular attention must also be given in the case of young people, men who have not yet been fathers, and clients with medical and mental health problems. A friendly counselor who listens to a man's concerns, answers his questions, and gives clear, practical information about the procedure, especially its permanence, will help the client make an informed choice. Informed choice results in a satisfied user without later regret.

Counseling must include the six elements of informed consent. When the client desires to undergo vasectomy, he signs an informed consent form that proves that the following six elements have been discussed:

- Temporary contraceptives are available to the client.
- Voluntary sterilization is a surgical procedure.
- The surgical procedure involves risks, in addition to benefits. Among the risks is the possibility that the procedure may fail.
- The effect of the procedure should be considered permanent.
- The procedure does not protect against sexually transmitted disease, including HIV/AIDS.
- The client can decide against the procedure at any time before the operation is performed without losing the right to medical health or other services or benefits.

In general, people who are most likely to regret sterilization are those who

- Are young
- Have few or no children
- Are not married
- Are having marital problems
- Have a partner who opposes sterilization

Involving the client's spouse in counseling is helpful. The decision about sterilization should be made by the client and his spouse as per the Responsible Parenthood and Reproductive Health (RPRH) Law. Family planning (FP) service providers have a duty to ensure that the decision for or against sterilization is voluntarily (not pressured or forced) made by the client.

WHAT ARE THE FACTS ABOUT VASECTOMY?

Vasectomy

- Does not involve the removal of the testicles. The procedure involves cutting and blocking the tubes that carry sperm.
- Does not decrease sexual drive.
- Does not affect sexual function. A man's erection is still the same, and he ejaculates the same as before the procedure.
- Does not cause the man to grow fat or become weak, less masculine, or less productive.

- Does not cause diseases later in life.
- Does not prevent transmission of STIs, including HIV.

WHAT ARE THE FREQUENTLY ASKED QUESTIONS REGARDING VASECTOMY?(2)

1. What advantages does vasectomy have over other forms of contraceptives?

   Vasectomy
   - Is permanent (it lasts for life).
   - Involves a safe, simple, and quick surgery with few risks and side effects.
   - Will reduce costs needed for supplies of other contraceptives.
   - Has fewer risks than other forms of contraceptives.

2. Does vasectomy hurt?
   - A vasectomy usually takes about 30 minutes and can be performed under local anesthesia. Most men feel little pain, if any, with an NSV.
     Mild discomfort is felt with the application of anesthesia, which will make the area of operation numb. A slight tugging sensation may be felt during the procedure. The effects of the anesthesia will last for several hours, thus providing sufficient time for the client to go home, lie down, and apply an ice pack. Oral pain relievers, such as paracetamol, will be all that may be required for inflammation and pain relief. A small amount of swelling may last for three to seven days. Some bruising may be observed on the scrotum after the procedure. This bruising usually heals within a few days.

3. Will vasectomy involve long-lasting pain?
   - Some men report having chronic pain or discomfort in the scrotum or testicles that can last from one year to more than five years after a vasectomy. Few men may have severe pain that they regret having the vasectomy. Severe, long-lasting pain following a vasectomy is uncommon, but all men considering a vasectomy should be informed about this risk.

- The cause of the pain is unknown. The pain may result from the pressure caused by the build-up of sperm that has leaked from an improperly sealed or tied vas deferens or from nerve damage. Treatment includes elevating the scrotum and taking pain relievers.

4. What happens to sperm that is not ejaculated during sexual intercourse? Will it collect in the scrotum and cause it to burst or cause other problems?
   - The body absorbs sperms that are not ejaculated. Sperm cannot accumulate in the scrotum or cause harm to a man's body in any way.

5. Is it possible to check if a vasectomy is working?
   - Yes. The service provider can examine a semen sample under a microscope to verify whether it still contains sperm.
   - It is recommended, but not essential, to have a semen examination at any time after three months following the procedure.
     - If no motile sperm cells are seen, then the vasectomy is deemed successful.
     - If less than one motile sperm is found in every 10 high-power fields in the fresh sample, then the client can rely on his vasectomy and stop using a backup method.
     - If his semen contains more moving sperm, the client should continue to use a backup method and return to the clinic monthly for semen analysis.
     - If his semen continues to have moving sperm, he may need to have a repeat vasectomy.

6. Will the vasectomy stop working after a time?
   - Generally, no. Vasectomy is intended to be permanent. In rare cases, however, the tubes that carry sperm grow back together, and the man will require a repeat vasectomy.

7. Can a man have his vasectomy reversed if he decides that he wants another child?
   - Generally, no. Vasectomy is intended to be permanent. People who may want more children should choose a different FP method. Surgery to reverse vasectomy is possible for only some men, and reversal often fails to result in pregnancy. The procedure is difficult and expensive, and providers who are able to perform such surgery are difficult to find. Thus, vasectomy should be considered irreversible.

8. Is it better for the man to have a vasectomy or for the woman to have female sterilization?
   - Each couple must decide for themselves as to which method is best for them. Both are very effective, safe, permanent methods for couples who know that they will not want more children. Ideally, a couple should consider both methods. If both are acceptable to the couple, vasectomy would be preferable because it is simpler, safer, easier, and less expensive than female sterilization.

9. Should vasectomy be offered only to men who have reached a certain age or have a certain number of children?
   - No. No justification exists for denying vasectomy to a man just because of his age, the number of his living children, or his marital status. Healthcare providers must not impose rigid rules about age, number of children, age of last child, or marital status. Each man must be allowed to decide for himself as to whether he will want more children and whether he will have a vasectomy.

10. Does vasectomy increase a man's risk of cancer or he art disease later in life?
    - No. Evidence from extensive studies shows that vasectomy does not increase risks of cancer of the testicles (testicular cancer), cancer of the prostate (prostate cancer), or heart disease.

11. Can a man who has a vasectomy transmit or become infected with STIs, including HIV?
    - Yes. Vasectomies do not protect against STIs, including HIV. All men at risk of STIs, including HIV, whether or not they have had vasectomies, need to use condoms to protect themselves and their partners from infection.

KEY POINTS

Vasectomy

- is a very simple surgery that can be performed in almost any health facility, including the treatment rooms of doctors.
- is a permanent method of contraception that is intended to provide life-long, safe, and very effective contraception.
- is not immediately effective because it takes three months to clear the male reproductive tract of live sperm. The man or couple must use another contraceptive method for three months after the procedure.
- does not affect male sexual performance.
- is permanent and thus requires the counselor to ensure informed choice.