



# Percutaneous No-Scalpel Vasectomy

Cleveland Clinic Glickman Urological & Kidney Institute

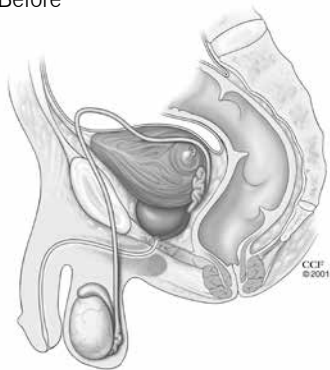
Your Personal Guide  
To This Safe and  
Innovative Procedure



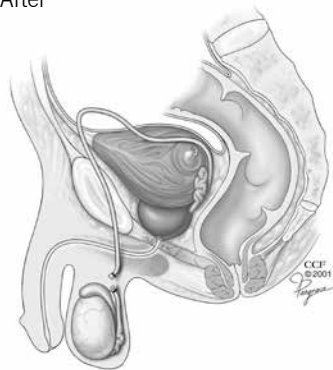
Vasectomy is a simple, safe operation that involves blocking the tubes through which sperm pass into the semen. The procedure is designed to make a man permanently sterile, or unable to father a child. More than 50 million men have had vasectomies.

If you are not sure about whether you may want to father a child in the future, you should postpone permanent sterilization. If you are concerned about the morbidity (possibility of experiencing pain, side effects, etc.) of the operation you should know that percutaneous no-scalpel vasectomy is an improvement on a traditional vasectomy. In this procedure, an advanced technique to anesthetize the scrotum is used, and patients experience less discomfort, fewer complications, a faster operation and a quicker recovery. What's more, no skin stitches or sutures are needed, although your surgeon may choose to use a single absorbable suture to bring the edges of the skin back together.

Before



After



## The Benefits of Vasectomy

Vasectomy offers many advantages as a method of birth control — the most clear being the near-universal effectiveness. Like female sterilization, vasectomy is a highly effective, one-time procedure that provides permanent contraception. Compared to female sterilization, however, vasectomy is simpler, more effective, can be performed on an outpatient basis, has fewer complications and is much less expensive. Annual pregnancy rates with typical use of various forms of birth control are shown below.

Female hormonal injection (DepoProvera).....	3%
Birth control pill.....	8%
Diaphragm.....	16%
Cervical cap.....	16-32%
Condom.....	15%
Rhythm (periodic monthly abstinence).....	12-20%
Withdrawal (prior to ejaculation).....	27%
Spermicidal creams.....	28%
Female tubal ligation.....	<1%
Vasectomy.....	<1%

Source: Up to date 2009 (adapted from Contraceptive Technology 19th edition 2007)

### What does the percutaneous no-scalpel procedure involve?

The procedure is performed under local anesthesia in the outpatient surgery room. The surgeon feels for the sperm-carrying tubes, or vas deferens, under the skin of the scrotum and holds them in place (one at a time). Injection of a local anesthetic using either a tiny needle (similar to the one used for a TB test) or other injector completely anesthetizes the surgical site. The anesthetic is effective immediately, so the instruments should not be felt after that point. A special instrument is then used to make a small puncture in the skin and stretch the opening so the vas deferens can be grasped, cut, cauterized and clipped with two sterile titanium clips on either end. The clips remain permanently, but rarely can be felt through the skin and will not be picked up by metal detectors. There is little discomfort, though some men feel a slight “tugging” sensation. This approach produces very little bleeding and no stitches are needed to close the incision. Generally, the procedure takes 15 to 30 minutes.

## What happens to sperm after a vasectomy?

After vasectomy, the testes continue to make sperm. When the sperm cells die, they disintegrate and are absorbed by the body. This is the same way the body handles other types of cells that die and are replaced on a daily basis.

## Can I discontinue other birth control methods right away?

No. Sperm can remain in the vas deferens above the operative site for weeks or even months after vasectomy. You will not be considered sterile until post-surgical semen analysis (usually performed 12 weeks post-vasectomy) shows that no live sperm remain. This test must be repeated monthly until clear. Until then, you must continue to use other birth control to prevent pregnancy.

You will receive a letter from your doctor confirming your sterility. Only at this time is it safe to discontinue birth control.

## What are the risks?

Although complications such as inflammation, bleeding or infection may occur, they are relatively uncommon and not serious. A major benefit of the percutaneous no-scalpel vasectomy is that the opening in the scrotum is so small that the blood vessels are less likely to be affected. Minor risks include:

- Sperm granuloma. A hard, sometimes painful lump about the size of a pea may form as a result of sperm leaking from the cut vas deferens. The lump is not dangerous and is almost always resolved by the body. Typically, scrotal support and mild pain relievers help relieve symptoms.
- Congestion. A sense of pressure caused by sperm in the testes, epididymis and lower vas deferens may cause discomfort for two to 12 weeks after vasectomy.

Like granuloma, congestion usually resolves itself over time.

- Pain. Any surgical procedure can affect nerves and, rarely, there can be residual “phantom” pain. The testicles are sensitive organs, so such pain is common in men whether they have had vasectomy or not. It is not clear whether vasectomy increases this risk.

## Will I experience any unwanted side effects?

Vasectomy does not affect production or release of testosterone, the male hormone responsible for a man’s sex drive, facial hair, deep voice and other masculine traits. The operation also has no effect on sexuality. Erections, climaxes and the amount of ejaculate remain the same; the only difference is that semen will no longer contain sperm. Some men who have undergone this procedure say that sex is more spontaneous and enjoyable because they are freed from concerns about contraception.

## Is a vasectomy 100 percent effective?

Other than total abstinence, no method of birth control is 100 percent effective. In rare cases, it is possible for sperm to find its way across the void between the two blocked ends of the vas deferens. Called recanalization, this generally occurs within the first few months following vasectomy. However, the failure rate of vasectomy is very low, as shown in the previous table. Vasectomy has been used for many years as a means of sterilization and has a long track record as a safe and effective method of contraception. If live sperm continue to appear in the semen samples, or if sperm are discovered after a period of time, a repeat vasectomy will be necessary. Medical research shows that this only happens approximately once in every 1,000 cases, a failure rate far lower than any other form of birth control.

## Can I have it reversed later if I choose?

Vasectomy should be considered a permanent means of birth control. Reversing a vasectomy is difficult, expensive and is not always successful. The decision should be discussed with a professional counselor. Men who are married or in a serious relationship also should discuss this issue with their partners. If you’re thinking about a reversal now, perhaps you should take more time to decide whether vasectomy is right for you at this time. You may also want to consider cryopreserving a semen specimen in the Andrology laboratory prior to receiving your vasectomy so that if you change your mind, you have preserved sperm that can be used for assisted reproduction techniques.

Because people often feel differently as they age, most men under 30 who are without children would be wise to wait in case they desire fatherhood later. An exception might be the man whose spouse or partner cannot have children for health reasons.

## Does vasectomy pose long-term health risks?

Many studies have looked at the long-term health effects of vasectomy. The evidence suggests that no significant risks exist. Men who have had a vasectomy are no more likely than other men to develop cancer, heart disease or other health problems.

In the early 1990s, a few reports suggested that vasectomized men might have a slightly higher risk of prostate cancer. Multiple studies ensued in several countries including the United States to assess this risk. All concluded the same thing — there is no evidence that vasectomy increases the risk of prostate cancer.

In 1993, a panel assembled by the National Institutes of Health, the Association for Voluntary Surgical Contraception and the National Cancer Institute reaffirmed the conclusion of most medical experts that vasectomy is a safe and effective means of permanent birth control. The panel advised that physicians continue to offer vasectomy, and that all men, vasectomized or not, receive the same regular screenings for prostate cancer and other illnesses.

More recently, the American Urological Association's Vasectomy Guideline Panel criticized the validity of a 2014 study published in the *Journal of Clinical Oncology* reporting a small association between vasectomy and prostate cancer. The panel's comprehensive analysis of many previously conducted studies also found that vasectomy is not a risk factor for prostate cancer. The panel further suggested that physicians need not discuss prostate cancer during routine preoperative counseling for vasectomy.

## Preparation

To determine if you are eligible for percutaneous no-scalpel vasectomy, we will go over your health history and you will receive a brief physical examination. Please be sure to advise us if any of the following apply to you:

- History of excessive bleeding or blood disorders
- Allergy or sensitivity to local anesthetics, such as the “caine” drugs or antibiotics
- Regular use of aspirin or aspirin-containing medicines for a week before vasectomy
- History of injury or prior surgery (especially vasectomy or vasectomy reversal) on the genitalia
- History of recent or repeat urinary tract or male genitalia infections

## Before surgery

- You and your partner will be asked to sign a request for sterilization. It will state that you understand vasectomy, its potential risks and that it is not guaranteed to result in permanent sterility. Prior to signing this form, be sure that you are informed and comfortable with your decision. It is important that you resolve any lingering questions or concerns you may have. Remember that vasectomy is a completely elective procedure, so you should not proceed with the procedure until you are convinced it is the right choice for you.
- Do not take aspirin, coumadin, Plavix, Ticlid, or NSAIDs (ibuprofen, such as Advil or Motrin) for seven days prior to surgery without prior medical approval. Taking these medications increases the risk of bleeding.
- The night before or the morning of vasectomy, shave the hair from the entire scrotum. Remove the hair all the way to the top of the penis, including any pubic hair that seems to fall onto the scrotum. A single blade disposable razor using soap and water in the shower is the best choice. Failure to adequately remove this hair may increase the risk of infection.
- To reduce the risk of infection, thoroughly wash the scrotum and groins the day before and the morning of the surgery.
- Bring with you a clean athletic supporter or snug pair of jockey shorts.
- A light meal or liquid is preferable to any heavy food before vasectomy.  
**Do not fast.**
- Be sure to have someone available to drive you home after the procedure.

## What to expect after vasectomy

### **Pain/Bruising**

Mild discomfort, bruising and swelling are common after surgery. Mild discomfort may be treated with acetaminophen (e.g., Tylenol) every four hours. Ice packs or a bag of frozen vegetables placed over the scrotal supporter and dressing may provide relief as well. Aggressive use of ice packs for the first 36 hours helps minimize swelling.

### **Dressing**

Dressing should be changed when stained or soiled. Small sterile gauze squares are available at any drugstore. The dressing can be removed when it is dry or stain-free, usually within a day or so. A small amount of oozing is to be expected, as it is preferable that this fluid not build up on the inside. If there is actual bleeding, pinch or otherwise compress the skin just as you would do if you cut yourself shaving.

### **Bathing**

Bathing or showering can start the day after vasectomy. To dry the scrotum, use a gentle patting motion.

### **Skin Separation**

Sometimes the skin will separate due to tissue fluid, blood or body fluids. The edges can be pinched together with sterile gauze and your fingers. This will bring the skin together and allow it to heal.

## Return to activity

Most men recover completely in less than a week. Everyday activities can be resumed two days after surgery (you should take the day after surgery off work) unless the activities are unusually vigorous. Men surveyed after percutaneous vasectomy report full recovery in an average of eight to nine days.

Sexual activity can be resumed within a week after vasectomy, but precautions should be taken against pregnancy until sperm counts show that the semen is free of sperm. Generally, the semen is checked for sperm 12 weeks after the vasectomy.

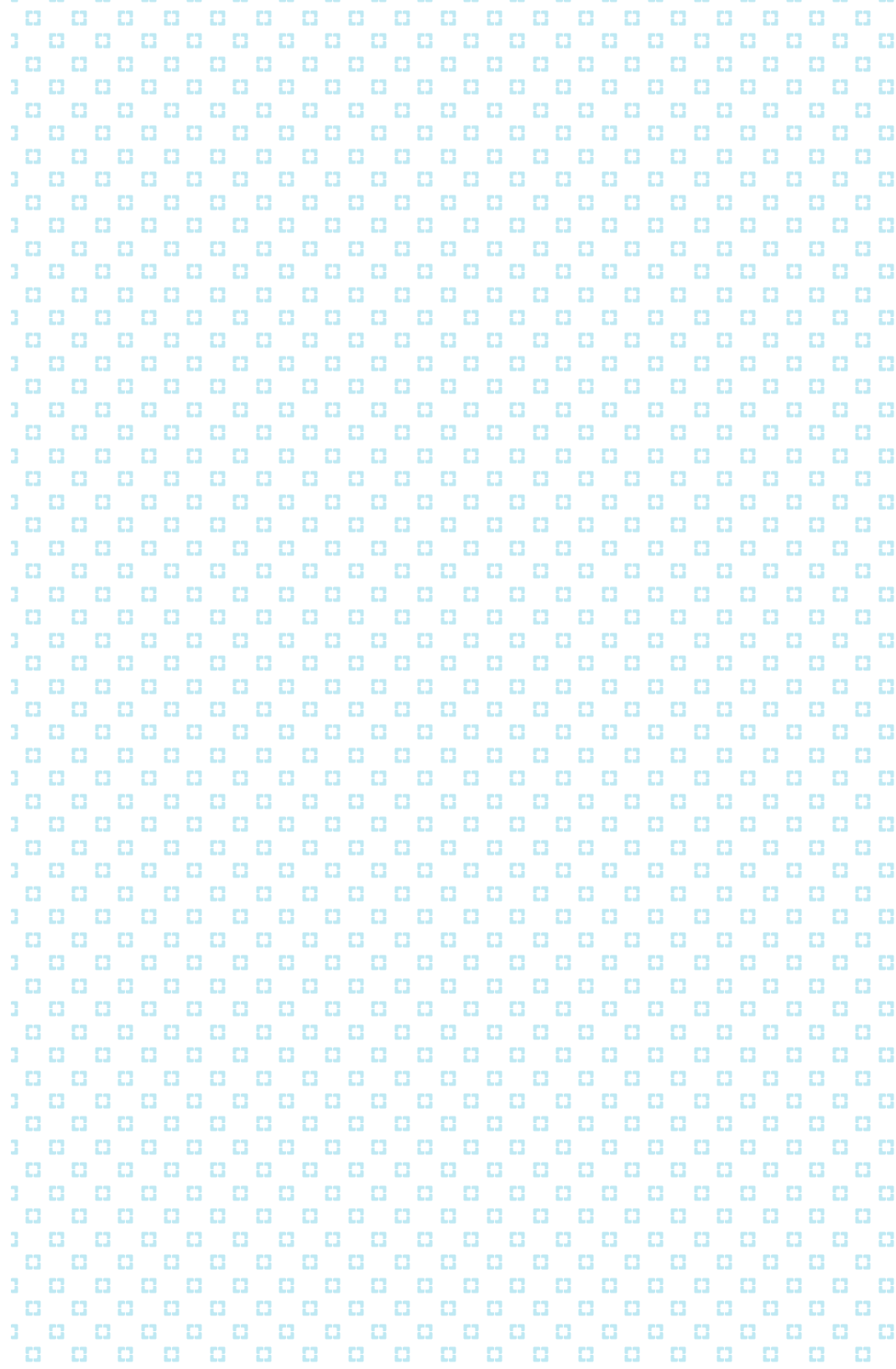
Post-vasectomy symptoms are not unusual and should subside within 72 hours of surgery. However, if you experience an unusual amount of pain, large swelling of the scrotum, continued bleeding or fever, call your physician. If you cannot reach your physician, call 216.444.2200 and ask the operator for the urology resident physician on-call.

## Information/Appointments

For more information about percutaneous no-scalpel vasectomy or to make an appointment at Cleveland Clinic, please call the Glickman Urological and Kidney Institute at the Cleveland Clinic Beachwood Family Health and Surgery Center at 216.839.3666, or Cleveland Clinic Glickman Urological and Kidney Institute at 216.444.5600 or 800.223.2273, ext. 45600.

Please visit us online at [clevelandclinic.org/urology](https://clevelandclinic.org/urology) for more information, including directions, maps and telephone numbers.

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