

CHEYENNE UROLOGICAL, PC

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VASECTOMY, THE NO SCALPEL APPROACH

Vasectomy is the process of dividing the vas (the tube that delivers the sperm from the testis to the prostate) in order to prevent conception. It is the most common method of male contraception in the country where about 500,000 vasectomies are done each year. Since vasectomy simply interrupts the delivery of the sperm, it does not change the hormonal function of the testis and sexual drive and ability remain intact. Vasectomy is thought to be free of no long term side effects, and is considered to be the safest and most reliable method of permanent male sterilization.

After injection of the scrotal skin and each vas with a local anesthetic, we use a special vas-fixation clamp to encircle and firmly secure the vas without penetrating the skin. One blade of a sharp forceps or clamp is then used to penetrate the scrotal skin. The tips of the forceps are spread, opening the skin much like spreading apart the weaves of fabric. The vas is thus brought through the same opening and occluded in a similar fashion. The skin wound contracts to a few millimeters and usually does not require suturing.

Compared to the traditional incisional technique, the No-Scalpel Vasectomy usually takes less time, causes less discomfort and may have lower rates of bleeding and infection. Recovery following the procedure is usually complete in two to three days. Hard work or straining (athletic pursuits or heavy lifting) is not recommended for seven days. Most patients should wait to have intercourse for a week after the procedure (you should feel no discomfort).

Common reasons given for having a vasectomy.

1. You want to enjoy sex without worrying about pregnancy.
2. You do not want to have more children than you can care for.
3. Your partner has health problems that might make pregnancy difficult.
4. You do not want to risk passing on a hereditary disease or disability
5. You and your partner don't want to or can't use other kinds of birth control.
6. You want to save your partner from the surgery involved in having her tubes tied and you want to save the expense.

COMMON QUESTIONS ASKED AND ANSWERED ABOUT NO-SCALPEL VASECTOMY

How can I be sure that I want a vasectomy?

You must be absolutely sure that you don't want to father a child under any circumstances. You must talk to your partner and it certainly is a good idea to make this decision together, consider other kinds of birth control and talk to friends or relatives who may have had a vasectomy. Think about how you would feel if your partner had an unplanned pregnancy. Talk to your doctor, nurse, or family planning counselor.

A vasectomy might not be right for you if you are very young, if your current relationship is not permanent, if you are having a vasectomy just to please your partner and you do not really want it, you are under a lot of stress or you are counting on being able to reverse the procedures at a later time.

How does the vasectomy prevent pregnancy?

Sperm is made in the testicles. The sperm then travels from the testicle through a tube called the vas into the body where it enters the prostate gland. In the prostate, the semen is made and here the sperm mixes with the semen. The prostate is connected to the channel in the penis and hence the sperm and semen are ejaculated. In a vasectomy, the vas or tube is blocked so that sperm cannot reach the prostate to mix with the semen. Without sperm in the semen a man cannot make his partner pregnant.

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What is different about a No-Scalpel vasectomy?

No Scalpel vasectomy is different from a conventional vasectomy in the way that we get to the tubes or vas to block them from passing sperm out of the testicles. In a conventional vasectomy, the physician may make one or two small cuts in the skin with a knife, and the doctor would then use sutures or stitches to close these cuts at the end of the procedure. In the No-Scalpel vasectomy, instead of making two incisions, the doctor makes only one tiny puncture into the skin with a special instrument. The same instrument is used to gently stretch the skin opening so that the tubes can be more easily reached. The tubes are then blocked, using the same methods as conventional vasectomy, but because of the lack of scalpel technique there is very little bleeding and no stitches are needed to close the tiny opening. This opening will heal quickly with little or no scarring. No-Scalpel vasectomy was introduced in the United States in 1988 and is now used by many doctors in this country who have mastered the technique.

Reasons for having a No-Scalpel vasectomy as compared to conventional vasectomy

1. No incision with a scalpel- only a small puncture with a sharp probe
2. Usually no stitches
3. Usually a faster procedure
4. Usually a faster recovery
5. Usually a less chance of bleeding and other complications
6. Usually less discomfort
7. Just as effective as regular vasectomy

Will it hurt?

When the local anesthetic is injected into skin of the scrotum, you will feel some discomfort, but as soon as it takes effect you should feel no pain or discomfort. Afterward you will be sore for a couple of days and may want to take a mild pain killer such as Tylenol, but the discomfort is usually less with the No-Scalpel technique because of less trauma or injury to the scrotum and tissues. Also, there are no stitches in most cases. We will provide you with complete instructions about what to do after surgery.

How soon can I go back to work?

You should be able to do routine physical work within 48 hours after your vasectomy, and will be able to do heavy physical labor and exercise within a week.

Will the vasectomy change me sexually?

The only thing that will change is that you will not be able to make your partner pregnant. Your body will continue to produce the same hormones that give you your sex drive and masculinity. You will make the same amount of semen. Vasectomy will not change your beard, sex drive, erections, climaxes or your voice. Some men say that without the worry of accidental pregnancy and the bother of other birth control methods, sex is more relaxed and enjoyable than before.

Will I be sterile right away?

NO. After a vasectomy there are some sperm left in your system. It may take a dozen or two dozen ejaculations to clear the sperm out downstream from where the vasectomy is performed. You and your partner should use other forms of birth control until we have had a chance to check your semen specimen at least twice to make sure that you are free of sperm.

Is the No-Scalpel vasectomy safe?

Vasectomy is generally safe and simple. Vasectomy is an operation and all surgery has some risk such as bleeding, infection and pain, but serious problems are unusual. There is always a small chance of the tubes rejoining themselves, and this is the reason that sperm checks are necessary. There have been some controversies in the past about long-term effectiveness of vasectomy, but to our knowledge there are no long-term risks of vasectomy.

How long will the No-Scalpel vasectomy take?

It depends on the surgeon, but on average, the operation lasts between fifteen to thirty minutes.

When can I start having sex again?

As a rule, we suggest waiting a week before having intercourse. Remember, however, that the vasectomy only divides the vas and has no effect on the sperm that are already beyond that point. **IT IS IMPORTANT NOT TO HAVE UNPROTECTED INTERCOURSE UNTIL THE ABSENCE OF SPERM FROM THE EJACULATE HAS BEEN CONFIRMED WITH TWO (2) NEGATIVE SPERM CHECKS TWO WEEKS APART.**

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VASECTOMY INSTRUCTIONS AND CONSENT

1. Purpose of the operation.

The intent of this operation, known as bilateral partial vasectomy, is to render you sterile (i.e. unable to cause a pregnancy in a female partner). You should also understand that there is only a remote possibility of reversing the state of infertility once achieved.

2. Nature of the operation.

The vas deferens are the tubes which conduct sperm from the testicles, and there is ordinarily one tube from each testicle. Bilateral partial vasectomy means dividing and closing each of these tubes and separating the severed ends. A segment may or may not be removed. The skin incisions in your scrotum may be closed with a suture material which will later dissolve as healing occurs.

3. Anesthesia for the operation.

The operation will be performed under local anesthesia. The skin of the scrotum and the nerves to the tube to be severed will be numbed by an injection of the anesthetic and you will be fully conscious. At least one injection will be given on each side of the scrotum. Sometimes discomfort is experienced in the area of the groin and testicles.

4. After the operation.

You may expect some minor postoperative problems and occasionally some complications. The minor discomforts which frequently occur included: (1) black and blue marks on the scrotum; (2) swelling beneath the incisions; (3) tenderness around the incision sites and testicles; (4) or a discharge from the edges of the skin incisions.

Some of the postoperative complications which can occur include;

- A. Epididymitis:** painful swelling of the tissue along side of the testicles, which might include swelling of the testicles (epididymo-orchitis). The resolution of the inflammatory process, if it occurs, may take several weeks or longer.
- B. Sperm Granuloma:** persistent tender swelling beneath the skin incision above the testicle. This is commonly due to leakage of sperm from the severed ends of the tubes into the tissues causing an inflammatory reaction.
- C. Hematoma:** hemorrhage due to undetected bleeding into the scrotal sac. In this instance, the scrotum may become swollen and discolored, and may require a second incision to drain the accumulated blood.
- D. Abscess:** pus may form within the scrotum and require a second incision to drain the accumulated infection.
- E. Recanalization:** the ends of the vas may rejoin themselves. If sperm are present in the semen later on, the operation would have to be redone.

5. Failure of bilateral partial vasectomy.

You should understand that until you have two consecutive negative sperm checks, you should continue to use other methods of contraception. The vasectomy will sometimes fail to produce sterility, and this occurs up to four percent of the time. Therefore, it is your responsibility to have your semen examined periodically, and understand that two negative semen checks are not an absolute guarantee against future pregnancies due to the remote possibility of recanalization.

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PRE- VASECOTOMY INSTRUCTIONS

All consent forms should be signed by you and brought to us before the vasectomy can be performed.

Before your vasectomy:

1. Be sure that you have read the vasectomy information.
2. Take a good soapy bath before coming in for your vasectomy.
3. Shave only the scrotum; **do not** shave the pubic area.
4. Have somebody bring you for your procedure – if you have been given Valium and Vicodin you should **NOT** drive at all.
5. Bring an athletic supporter (jock strap) or wear briefs for support after your procedure.
6. If you have any questions, please ask.

POST-OPERATIVE INSTRUCTIONS FOR VASECTOMY

DIET:

You may return to your normal diet as soon as you arrive home.

ACTIVITY:

Your physical activity should be restricted the first forty-eight hours. During that time you should remain relatively inactive, moving about only when necessary. During the first 7 days following surgery you should avoid lifting any heavy objects (anything greater than fifteen pounds), and avoid strenuous exercise. If you work, ask us specifically about your restrictions, both for home and work. We will write a note to your employer if needed.

You should plan to wear a tight pair of briefs or an athletic supporter for the first 4-5 days, even to sleep. This will keep the scrotum immobilized to some degree and keep swelling down.

Ice packs should be placed on and off over the scrotum for the first 48 hours. Frozen peas or frozen corn can be frozen, used and re-frozen. A reasonable schedule is 15 minutes on and 15 minutes off. The ice is a good pain reliever and keeps the swelling down.

WOUND:

For those who have the single incision, you will have no suture and the wound will seal in 1-2 days. Some patients will have absorbable sutures that will dissolve within the first 10-20 days. In either case you can safely shower within 48 hours. If there is generalized redness, especially with increasing pain or swelling, let us know. The scrotum will possibly get “black and blue” as blood in the tissues spreads. Sometimes the whole scrotum will bruise. The “black and blue” is followed by a yellow and brown color. In time, all this coloration will go away.

HYGIENE:

You may shower 48 hours after surgery. Tub bathing should be restricted until the 7th day.

PAIN CONTROL:

You may take Tylenol (acetaminophen) for pain. It is the safest of all pain relievers because it causes no bleeding. Aspirin is to be avoided. Advil (ibuprofen) has some aspirin-like side effects but it is a stronger pain reliever that can be used if the Tylenol is no working. You are welcome, of course, to use the pain medication that your physician has prescribed for you.

PROBLEMS YOU SHOULD REPORT TO US:

- A. **Fever of 100.5 degrees Fahrenheit.**
- B. **Moderate or severe swelling under the skin incision or involving the scrotum.**
- C. **Drug reactions such as hives, a rash, nausea, or vomiting**
- D. **Foul-smelling or pus-like discharge from the incision.**

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Instructions for Follow-Up

Patients may be instructed to have a post-op check after 1 week with one of our physician assistants. If not, you do not need follow-up in our office unless problems arise. You will need to have 1-2 semen analysis, depending on your doctor, to make certain that the vasectomy was successful.

1. Wait 7 days before having any type of sexual activity or ejaculation.
2. Birth control of some form should be used until your physician has told you otherwise.
3. Bring in a semen analysis as instructed below.

Instructions for Bringing in Your Post-Vasectomy Semen Analysis

1. Please call first to be sure there is a provider in the office to look at the specimen.
2. Bring the semen specimen in the appropriate container LABELED with your name and a phone number that we can reach you at (this must be collected through masturbation).
3. This specimen needs to be brought to our office within **2 HOURS** of collection. It needs to be "fresh".
4. We will notify you of any further instructions after the provider has looked at the specimen.

Thank-you very much!!

Public Statement regarding Vasectomy and Prostate Cancer

The February 17, 1993 issue of the Journal of American Medical Association (JAMA) includes two reports of research studies regarding vasectomy and prostate cancer. The research, conducted by Giovannucci at Harvard Medical School found in patients studies that vasectomy was associated with a small increased risk of prostate cancer.

Although the relationship between prostate cancer and vasectomy was weak in these studies, the findings are still noteworthy and should not be ignored. Neither should the public nor medical professionals overreact to this new information.

Review of other large studies

To best understand the new studies, they must be viewed in light of other similar research on this topic. Two other large studies of similar design conducted in the United States have yielded information on vasectomy, prostate cancer, and other medical conditions. Both of these long-term studies were highly reassuring about the safety of vasectomy, not only in terms of prostate cancer about also in regard to other conditions.

In a study of Kaiser Permanente Health Care members, Stephen Sidney and his colleagues found no increased risk for prostate cancer among vasectomized men. In a study conducted in four cities, Frank J Massey from the University of California at Los Angeles and his colleagues found a reduced risk of prostate cancer among vasectomized men.

The two new studies reported in the JAMA found only a small increased risk for prostate cancer among vasectomized men. Medical researchers interpret such a small increase as a weak association that may be due to chance or bias.

Biologic Mechanism

Before a causal relationship can be established between any disease and a particular factor, a biological mechanism must exist. According to Giovannucci and his colleagues, reductions in prostatic secretions or changes in the immunologic mechanism after vasectomy could be the biologic link between vasectomy and prostate cancer. But most experts do not agree with them.

In 1990, two other medical studies found a link between prostate cancer and vasectomy, but they involved small numbers of men, and the case-control research design has significant limitations. Nevertheless, concerns about the issue prompted the World Health Organization to convene a 1991 meeting of 23 international experts to review all research regarding vasectomy and prostate cancer. These experts concluded that there was no plausible biologic mechanism for a relationship between vasectomy and prostate cancer. The World Health Organization has reviewed the two new Giovannucci studies and has concluded that vasectomy should still be offered to men, provided men receive appropriate information about the risks and benefits of the procedure.