

# VASECTOMY

The No-Scalpel Method

Ligations

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## Kenneth R. Popowich

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Dr. Popowich is a graduate of the University of Calgary Faculty of Medicine. He completed his residency training in Family Medicine in 1983. He has practiced Family Medicine for over seventeen years before switching his focus to the surgical subspecialties - exclusively as of January, 2001. He has always maintained a surgical interest, having been a regular assistant in the operating room.

Dr. Popowich has many years of experience in performing vasectomies, first by the traditional method and later by the newer No Scalpel Technique. It is this No Scalpel method that is currently used. To date, he has performed several thousand of these procedures. Dr. Popowich has also taught several instructional courses on this procedure. These courses have been at the local, provincial and international level in conjunction with major medical meetings.

Apart from his vasectomy practice, Dr. Popowich remains active with other surgical interests particularly assisting with the cardiac surgery program. His referral base consists of over four hundred family physicians and surgical specialists who regularly refer men for vasectomy.

## Attila Nadori

MB ChB, MD, CCFP



Dr. Nadori received his medical degree from the University of Pretoria in South Africa in 1988. He has practiced Family Medicine and low risk Obstetrics for twenty six years in both South Africa and Canada. Dr. Nadori has trained extensively with a specialist in the US performing No Scalpel Vasectomies.

Dr. Nadori is the recipient of the Gold Star Teaching Award in Recognition and Appreciation of Outstanding Teaching in Family Medicine Clerkship (Class of 2010). He was also nominated for Outstanding Family Physician by the Department of Family Medicine in Calgary Health Region.

## Vasectomy The No-Scalpel Method

### What Is Vasectomy?

A vasectomy is a minor operation that is designed as a permanent method of birth control. The doctor is able to cut and block off the small tubes that carry sperm from the testicles to the seminal vesicles that produce the major portion of the ejaculate. Once successful, the man is sterile and can no longer father children.

### Making The Decision To Undergo Vasectomy

Vasectomy must always be considered as a permanent and irreversible procedure. Having stated that, it is technically possible to reverse the procedure, but this is a much more involved operation with lower success rates and no guarantee that the reversal will work. Again, consider vasectomy to be permanent.

It is also important to remember that a vasectomy does not work immediately. There is a period of time required after vasectomy before the semen contains no more sperm. For most men, this period averages 4 months. Until you have had a follow-up sperm count which shows no sperm at all, you should continue with another form of birth control.

One must also remember that vasectomy does not always work. There is a failure rate to this procedure, no matter who performs it or what technique is used. The usual failure, if there is such a thing, happens less than 1% of the time. In this case, the man's sperm count decreases but does not quite reach zero before it then begins to increase. If two successive sperm counts show an increase in numbers of active sperm, then the procedure has likely failed and should be repeated.

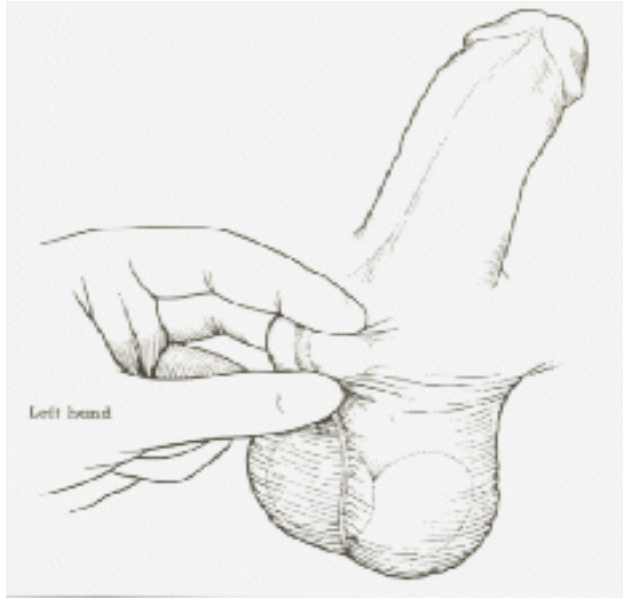
The more uncommon failure is the late failure, which happens in about 1:5,000 to 1:10,000 times. In these men, who have had a completely negative sperm count after vasectomy, the body will somehow manage to again produce semen containing active sperm. This could occur years after the original vasectomy. Why this happens we do not know and to whom it happens we cannot predict, yet we know that, statistically, it will happen with that frequency. Unfortunately, the way that these failures are detected is with an unexpected and, usually, unwanted pregnancy.

### How is a Vasectomy Done?

A vasectomy is performed in the doctor's office under a local anesthetic. The doctor may first have to shave a small area of skin on the front part of the scrotum to prevent hair from

entering the surgical site. The skin is then cleansed with an antibacterial solution to reduce the chance of infection.

The doctor then feels for the vas deferens in the scrotum, locates it and brings it close to the surface of the skin in the midline. Some local anesthetic is then injected first into the skin



and then around the vas itself. This anesthetic takes effect very quickly so that any discomfort is minimal. Once the area is numb, a special instrument is used to make a small opening in the scrotum. A loop of the vas deferens is then lifted out through this small opening, is clamped in two spots, and a portion of the tube removed. The cut ends are then sealed with cautery and are tied off with suture material. Where possible, a layer of tissue is also placed between the two free ends of the vas before the vas is returned to the scrotum. Exactly the same

procedure is then performed on the vas deferens coming from the other testicle, using the same puncture site as for the first side. In unusual cases this may not be easily done and a second puncture site may be necessary.

At the conclusion of the procedure, the area is again cleansed, the skin edges come together, usually without the need for sutures, and the wound is dressed with a small gauze pad. A snug fitting pair of jockey style shorts will keep the dressing in place without the need for adhesive tape.

After the vasectomy you should go home to bed and lie flat. Apply ice packs intermittently to the scrotum for the remainder of the day and rest as much as possible over the next 48 hours. Most men are then able to return to office type work, but you should avoid heavy lifting and sporting activities for about 5 to 7 days. Showering is allowed on the next day, but you should avoid soaking in a tub or bath for about a week.

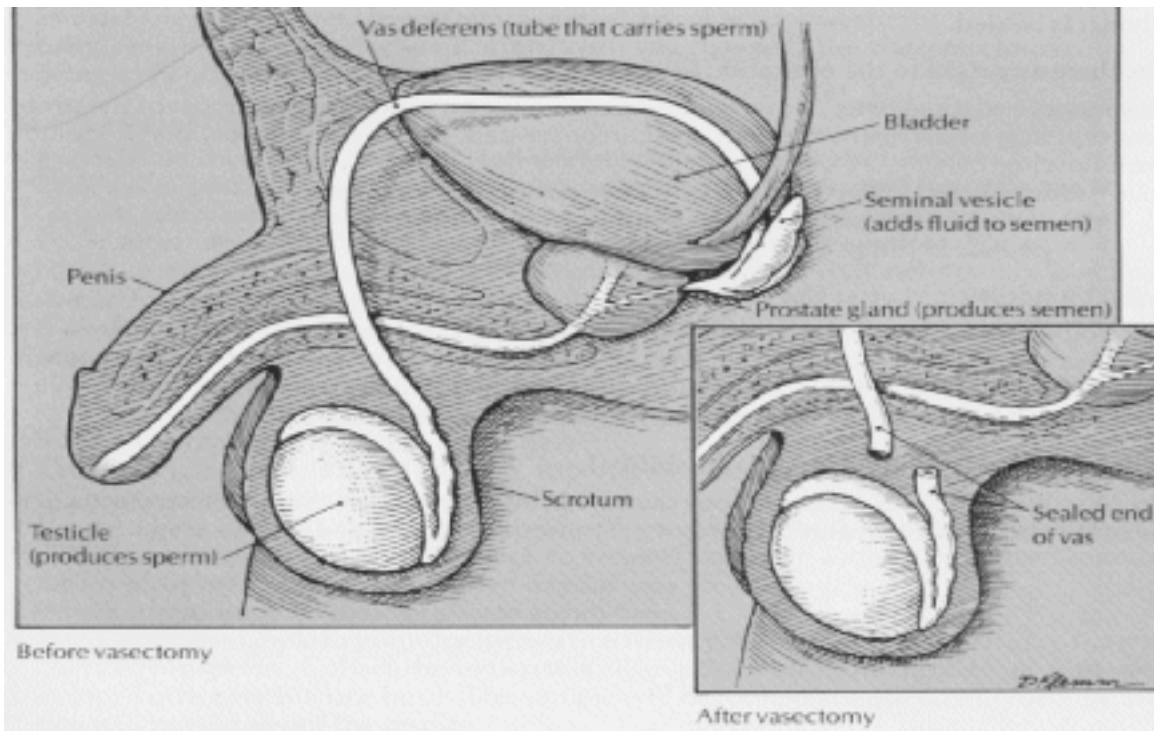
The procedure itself takes only about 20 to 25 minutes and is usually performed at the end of the workweek i.e. Friday or, rarely, on a Saturday.

### What Complications Can Occur?

Complications of vasectomy are few and when they occur are usually mild. Most, if not all, complications relate to bleeding so it is important to follow your doctor's instructions in

order to minimize bleeding. A small amount of oozing from the operative site is quite common. This can be stopped with direct pressure by pinching the skin edges together for 3 minutes.

Bleeding into the scrotum may result in a hematoma, or collection of blood inside the scrotum. This may lead to increased pain after the procedure, an increased risk of infection, and a prolonged recovery time.



If you suspect this is happening, or if your scrotum enlarges in the first few hours after your procedure, you should go to the emergency room at the hospital to have this checked. Infection may also occur, often related to internal bleeding, and may occur up to two weeks after the procedure. If you notice an increase in pain, together with a red, hot, or very tender scrotum, with or without discharge from the puncture site, you should contact your doctor, as antibiotics may be necessary.

Epididymitis is an inflammatory response in which the tissue around the testicle(s) may become inflamed, making one or both testicles extra sensitive to pressure and quite tender. Treatment with regular doses of anti-inflammatory medication, such as ibuprofen, for a few days will usually resolve this problem. Occasionally, a short course of antibiotics is required as well.

Sperm granuloma formation can also occur. This is a tender nodule in the scrotum at the site where the vas has been interrupted and where the body is working to reabsorb the sperm

that are trapped at that point. Usually no treatment is required and this nodule shrinks and disappears with time. Very rarely, surgery may be necessary to remove this area.

Rarely, some men will experience discomfort long after the procedure, relating to irritation of a nerve running along the vas deferens. This, too, is usually self-limited and diminishes with time. For extremely bothersome cases, referral to a urologist for surgical removal of this neuroma is required.

Allergic reactions to the prep solutions or medications are unusual and is rarely life threatening. If treatment is necessary, your doctor will recommend or administer the appropriate medication.

### What To Do Before Vasectomy

Once you and your partner are comfortable with your decision to proceed with vasectomy and have booked your procedure time, some instructions are important for you to follow:

- Avoid any products containing aspirin (A.S.A.) for two weeks before the procedure. These include such things as some over-the-counter cough and cold remedies and antacid preparations. Aspirin acts as a blood thinner and could lead to increased risk of bleeding after the procedure.
- Avoid other anti-inflammatories for one to two days before the procedure. These drugs have a similar effect to aspirin but are shorter acting.
- Wash the scrotal area with an antibacterial skin wash such as Tersaseptic on both the night before and the day of the procedure. This reduces the number of bacteria on the skin and lowers your risk of infection. There is no need to shave the area before coming in.
- Eat your usual meal before the procedure. If you come in without having eaten, you may be more prone to experience some queasiness or nausea.
- If you are extremely anxious about the procedure, ask your doctor for a prescription for a minor tranquilizer to take before the procedure. Most men do not require any sedation before the procedure.
- If you have an extreme fear of needles, you may apply a topical anesthetic cream such as EMLA to the operative site 1—2 hours before the procedure. Your doctor will show you where the skin puncture site is likely to be when you come in for your consultation.
- Bring two snug fitting pairs of underwear (jockey style) with you to act as a scrotal support after the procedure. This will hold the dressing in place and support the scrotum to minimize discomfort and swelling. A cold pack fits nicely between the two pairs of shorts.

- Arrange for someone to drive you home. The anesthetic may begin to wear off on your drive home and it is best if you are not behind the wheel when this happens. When the freezing wears off, you will experience a heavy, aching sensation in the groin.

### After Your Vasectomy

- The most important thing to remember is to go home to bed and lie flat immediately after vasectomy. This reduces the blood pressure in the tiny vessels in the scrotum and lessens any tendency to bleed.
- Keep an ice pack on the scrotum intermittently for the first few hours, again to shrink blood vessels and reduce swelling.
- Limit your activity for the first two days. This will reduce any swelling, discomfort and bleeding.
- Avoid strenuous activity such as heavy lifting and sports for five to seven days. After this time, your comfort level can dictate your activity.
- Wear your athletic support or snug fitting shorts for 24 hours or as long as it feels comfortable.
- You may shower on the day after the procedure and may continue using the antibacterial skin wash. Do not soak in a tub or go swimming until the incision is healed.
- You may return to office type work in 48-72 hours or as your comfort level dictates.
- A prescription for pain medication will be provided before you leave the office. If you require additional medication or if the medication provided is ineffective, let your doctor know, as you may need to be seen again.
- Bring a follow-up semen sample to the laboratory as instructed by your doctor approximately four months after the procedure. The doctor will inform you when the results are available, usually in about six or seven days from when the sample was delivered to the lab.

**Remember: the procedure has not worked until your sperm count is zero!**

## Common Questions

### **Is vasectomy reversible?**

Technically, yes, but with varying success. A general anesthetic is required and a skilled and experienced urologist will do the procedure. Success rates rarely exceed 50%.

### **Will I still ejaculate?**

Yes. Only the sperm component of the seminal fluid is eliminated. The remaining 98% of seminal fluid is unchanged so that you will not likely notice any change in the volume of the ejaculate.

### **Do I need to continue to have sperm levels checked?**

This is usually not necessary because of the extremely low chance of a late failure as was described earlier. However, if you require ongoing reassurance, you may be able to arrange for periodic testing of the semen through your regular physician.

### **What happens to the sperm?**

Your testicles continue to produce sperm that move down the vas to the point at which it has been tied off. This stretches the vas enough to trigger a response by the body in which white blood cells are sent in to investigate and eventually break down the sperm. The broken down products can then be reabsorbed and used for other purposes by the body.

### **Should I shave the area ahead of time?**

Usually not. Wound infection studies show that the less time from the shave to the opening of the skin results in lower infection rates. Your doctor will shave the area before the operation if it is required.

### **When can I have intercourse afterwards?**

Basically, whenever you feel up to it (no pun intended.). Try to wait at least 3-4 days to allow some healing to take place. You may have some pain with intercourse initially but this should quickly disappear if it happens at all.

### **What about the Laser Vasectomy?**

Currently there is no laser vasectomy and if there were it would be unlikely to provide any advantage because a small hole in the skin is still required. Many men hear “no scalpel” vasectomy and assume this means laser.

### **Is there a charge for the procedure?**

Alberta Health Care does cover the cost of the vasectomy operation. We do not have any additional surcharge.

### **How long will my appointment take?**



We value your time and do our utmost to run on schedule, or even ahead of schedule. Please plan on arriving 15 minutes ahead of your surgery time.

**What is your cancellation policy?**

If you must cancel your surgery, please give as much notice as possible so that we may offer your spot to someone who is on our cancellation list.

**Can I drive myself to and from my appointment?**

We recommend that you make arrangements for someone else to drive you home, particularly if your drive home is more than 15 minutes.

**Where do I park?**

There is underground parking available at no charge.

**Can I bring my family to my appointment?**

Our clinic is relatively small and does not have stairs to reach our office. We prefer that you make arrangements for a babysitter for your children rather than to bring them along with you to our office.

**What is your office setup?**

Our office is located at 4306 Richmond Road S.W. There is underground parking available at no charge, or one can park in the street. We do ask that you not bring your children with you on the day of your surgery but that you make arrangements for childcare for them. This will create a much more relaxing environment for you, your doctor and for any other men who may overlap with the time of your appointment.

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