A vasectomy reversal is a microsurgical procedure that reconnects the vas deferens where it was interrupted by a vasectomy. Although vasectomy has historically been considered a permanent sterilization procedure, current advances in microsurgery over the past 15 years have greatly improved the success rate of vasectomy reversal.

The common reasons for vasectomy reversal are a new relationship or remarriage following a divorce or having a change of heart and a desire for more children. Occasionally, there are unfortunate individuals who have lost their children and want to have more children.

Vasectomy reversal procedure is performed in the One Stop Medical Center on a come-and-go basis. The actual operating time for a vasectomy reversal procedure can range from 2 to 2.5 hours, depending on its complexity. A local anesthetic is used, and patients return home or to a hotel room after the vasectomy reversal procedure, but Dr. Shu requests that out-of-town patients stay in the Twin Cities area for at least one day following the vasectomy reversal procedure before returning home.

Preoperative Consultation

A preoperative consultation is an important step in planning on vasectomy reversal. Thanks to the Internet, the patients can get all information on vasectomy reversal from a well-designed high quality website.

The following topics related to vasectomy reversal are addressed in our website or discussed in a preoperative vasectomy reversal consultation.

- Review the patient's medical history, vasectomy history, and his wife or partner's fertility.
- Review the anatomy and physiology related to vasectomy reversal.
- Discuss the relationship between years of vasectomy with the success rate and other factors affecting the success rate, discuss about the possibility of failure.
- Discuss the rationale and indications to choose V-V and V-E (Dr. Shu doesn't perform the V-E).
- Discuss the concepts of sperm recovery rate and pregnancy rate, and not all successful reversal patients will cause pregnant.
- Discuss benefits, risks, complications and alternatives.
- Inform the cost and the payment options.
- Review pre and post care instructions.
- Answered all questions the patients have.

“VV” vs. “VE”

After vasectomy, the very fine tubes of the epididymis can become blocked due to scarring caused by chronic inflammation or “blowout” in the fine tubes of the epididymis. The longer the duration of the inflammation, the greater the likelihood of scarring and obstruction in the epididymis.
The likelihood of obstruction in the epididymis is roughly proportional to the number of years that have gone by since the vasectomy. After an interval of only 1-3 years, the epididymis is rarely blocked, but after an interval of 20 years, the likelihood of secondary obstruction may be over 30%. Fixing the vas where it was divided at the time of the vasectomy (vasovasostomy or “VV”) will not correct the secondary obstruction upstream in the epididymis. That requires a more elaborate procedure called a vasoepididymostomy or “VE”, in which the portion of the vas tube above or “downstream” from the vasectomy site blockage is connected to the portion of the epididymis “upstream” from the secondary obstruction.

Vasovasostomy (VV) and vasoepididymostomy (VE) are very different operations. A VE is different in a number of ways. (1) VE requires a much larger incision since the testes must be taken out of the scrotum while the connection between the epididymis and vas is made. (2) Surgeon must usually make two incisions, one left and one right, which can be extended up toward each groin to allow for dissection and loosening of higher portions of the vas in order to bridge the ends. (3) Finally, A VE is more technically demanding than a VV because the epididymal tubes are much smaller than the vas tubes. A high powered microscope must be used, the connection between epididymis and vas (VE) is often not as strong as the connection between vas and vas (VV), and the success rate of VE is not as high as the success rate of VV.

V-V is a minimal invasive surgical procedure with the high success rate, less trauma and affordability, and it makes the most sense for men whose intervals are short (less than 10 years) and who have no adverse physical findings.

**VASOVASOSTOMY TECHNIQUES**

Vasectomy Reversal takes about 2 to 2.5 hours. It is performed under local anesthesia similar to the anesthesia used for vasectomy but with a longer-acting drug. Continuity of both vas tubes can be restored through a single less than 1 cm incision. Magnification is accomplished with either a surgical microscope and optical loupes, the high-power glasses used by gem-cutters and by cardiac surgeons when bypassing the small coronary blood vessels.

Conventional anesthesia in vasectomy reversal surgery involves general anesthesia, intravenous sedation and needle injection for the local anesthesia. Dr. Shu uses the modern no-scalpel technique, exposing each vas in turn through a small opening in the front scrotal wall under local anesthesia. A spray applicator (MadaJet®) delivers a stream of anesthetic to anesthetize each vas tube in turn as it is lifted into position beneath the skin. Supplemental anesthetic can be given intraoperatively as needed.

The scarred ends of the vas were first removed at the point of blockage created by the vasectomy, and upper ends are irrigated with saline to check the patency. A fluid sample will then be extracted from the end closest to the testicle to see if the fluid contains sperm. If the vas structure is workable, then the ends of the vas are connected to reestablish the passageway for sperm (vasovasostomy). Anastomosis of the two ends was accomplished with #9 nylon sutures in the modified single-layer fashion. 10-12 sutures total were used. The tiny wound was not closed or closed in the subQ with absorbable suture.
Success rate for vasectomy reversal is generally reported in two ways: sperm recovery rate (patency success rate) and pregnancy rate. Although the statistical averages derived from large numbers of patients offer a general guide, your specific situation and results may differ from that of the average due of many personal variables, such as the surgeon’s vasectomy techniques, your age, you and your partner’s fertility, and a host of other factors.

The single most important factor in whether a vasectomy reversal procedure will be successful is the interval in time (years) between vasectomy and vasectomy reversal. Theoretically, the sperm recovery rate drops two percent every year after vasectomy. This is because the likelihood of obstruction in the epididymis increases—especially after 7-10 years. Many men, however, do not develop any obstructions after 15, even 20 years, and may therefore expect a better sperm recovery success rate with a vas-to-vas procedure.

Moreover, it is not always easy to follow up with the patients and accurately track the success rate. Most reversal clinics usually track the sperm recovery rate, not pregnancy rate, because it is involved with fertility of another partner. Also, the pregnancy rate is usually much lower than the sperm recovery rate. For example, the data could be skewed if a clinic only published the data of two hundred cases selected in several thousand vasectomy reversal cases performed. In this case, the claim of a 95% sperm recovery rate is not accurate at all, and the claim of a very high pregnancy rate is beyond belief. Therefore, it will be very difficult for patients to compare success rates among reversal clinics.

Vasectomy reversal can be a gamble, with the success rates and fees varying from office to office, so the evaluating couple must determine where they can get the greatest value from their investment. For example, if the candidate’s interval is 4-6 years and one office has a rate of 90% (sperm recovery) for a fee of $3000, and another office offers a competitive rate of 95% for $10,000, then only the couple can decide whether the increment in higher success is worth the difference in cost.

Not all successful reversal patients will cause pregnant, and the pregnancy rate curve is always below the sperm recovery rate curve. A pregnancy involves two partners. Although the count and quality of sperm may be high after vasectomy reversal procedure, female fertility factors and the interactions may play an indirect role in pregnancy success and the reason for failure.

**BEFORE VASECTOMY REVERSAL**

1. Since the procedure is performed under local anesthesia (you will not be put to sleep), no special laboratory tests are required.
2. Have a hearty breakfast and lunch on the day of the procedure but try to limit fluid consumption. You will be asked to empty your bladder just before the reversal, but then you will not have an opportunity to urinate for the next 3 hours. Were you to drink a lot of fluids beforehand, you might make enough urine during the procedure that your bladder would become uncomfortably full.
3. Please shave the scrotum and take a good shower before you leave home for vasectomy reversal. You will be asked to refrain from doing so again until 2 days after your procedure.
4. Arrange to have someone drive you home or back to your hotel. That person need not wait around during your procedure, but should pick you up about 2 hours later.
5. Do not take any aspirin-containing medication for 5 days before the procedure. Aspirin has a slight effect on blood clotting mechanisms and can promote bleeding.

AFTER VASECTOMY REVERSAL

1. You will go directly home (or back to your hotel room) and minimize activity. Spend the evening in bed or on a sofa (your scrotum should be as high as your heart to minimize scrotal venous pressure and bleeding), doing nothing more than reading or watching television.
2. Take the antibiotics on schedule.
3. The scrotal support should be left on during bowel movements.
4. If you have any discomfort at all, plain Tylenol will help, no aspirin. We provide a prescription for pain pills, but most patients don’t need them.
5. Change the gauze as needed
6. Keep the small wound clean, apply antibiotic ointment daily. Very occasionally, you will remove the small drain tube in 24 hours as instructed if a drain is placed.
7. Two days after the procedure, you may take a shower. Wear the scrotal support for 21 days (3 weeks), day and night (except during showers) for 10 days, then daytime only.
8. It is normal to have some discoloration of the skin around the incision. Sometimes, this discoloration even extends part way down the shaft of the penis. The incision may not close for 2-3 weeks.
9. You may return to light work on the 4th post-operative day (wearing the scrotal support), but lift no more than 20 pounds for 2 weeks.
10. You may resume intercourse 21 days (3 weeks) after the procedure. You may notice some blood in the ejaculate; this is no cause for concern.
11. Semen analysis will be performed in 6 weeks after your reversal, you may repeat semen analyses as instructed. Remember, it is important to abstain from intercourse for 2-3 days prior to providing a semen sample. Insurance will often cover lab tests.

THE POSSIBLE COMPLICATIONS

In general, vasectomy reversal in healthy men is a very safe surgical procedure. Local anesthesia avoids the risks from general anesthesia. Regarding the procedure, hematoma (collection of blood) occurs in less than 5% of men. Some swelling is expected after such surgery. Infection occurs less than 1%. Dr. Shu routinely asks the patients to take antibiotics for a week after to minimize it.

ALTERNATIVES TO VASECTOMY REVERSAL

Certainly there are other ways to build a family and have more children besides vasectomy reversal (Vasovasostomy).

- Vasoepididymostomy
- Sperm retrieval with In Vitro Fertilisation IVF & Intra-cytoplasmic sperm injection ICSI
- Intrauterine insemination (IUI)
- Donor sperm and Adoption
- Childfree living
FEES

Scheduling Deposit
To reserve a day for your surgery, a $950.00 non-refundable and non-transferable fee is required. This is credited toward your actual surgery cost. If you cancel or re-schedule for any reason, your $950.00 will not be refunded, and you have to pay new deposit of $950 if you re-schedule your surgical appointment.

ENTIRE PROCEDURE COST IS DUE 2 WEEKS PRIOR TO SURGERY DATE! You may make payments up until that point or pay in full, but everything must be paid 2 weeks before your surgery. The full payment is $2600 if you choose the same day consultation or $2490 if you have the consultation before surgery. We charge $144 for the consultation.

Cancellation and Refunds

Please understand that the One Stop Medical Center must uphold these policies as we have an obligation to our patients who may have requested the same day and to our surgical team who are scheduled to work. Also, there are numerous medical supplies that are ordered specifically for your surgery.

If you cancel your surgery less than 14 days, but more than 96 hours (4 business days), prior to the scheduled date, in addition to the $950.00 non-refundable scheduling fee, there is a $500.00 cancellation fee. The balance of your surgery pre-payment will be refunded in full by business check after 30 days. This time is required to insure all pre-payment transactions have cleared and are validated by the appropriate financial institutions.

If you cancel your surgery less than 96 hours prior to the scheduled date or fail to attend on your scheduled surgery date, you will forfeit the total surgery pre-payment. There will be no refund for services already provided.

Treatment and Complications
The practice of medicine and surgery is not an exact science. Although good results are anticipated, there can be no guarantee or warranty, expressed or implied, by anyone as to the actual results you may get. Surgical intervention and/or other medical treatment or management of complications may be required. These may result in additional charges for which you are responsible.

Dr. Steven Shu, M.D., MBA, is a board certified laser surgeon who specializes in office procedures, and he is not a board certified urologist. Please review his profile in our website.