

11459 Johns Creek Pkwy. Suite 170 Johns Creek, GA 30096 Phone: (678) 417-0400 Fax: (678) 417-0483 www.gaurology.com

## VASECTOMY REVERSAL OVERVIEW

## Vasovasostomy (VV)

The vas deferens is the tube that carries sperm from the testicles to the prostate. Vasectomy is the leading cause of obstruction of the vas deferens, but men may be born with or acquire obstruction later in life from trauma or infection.

The ultimate success of a reconstructive procedure is unassisted pregnancy and is dependent on several factors: the age and fertility of the female partner, the surgeon's experience and the technique of vasectomy reversal and the length of time since the vasectomy was performed so called obstructive interval. In a large study of 1469 patients from multiple institutions, the success rate was inversely proportional to the obstructive interval. The shorter the interval, the higher the success rate. In men with obstructed intervals less than 3 years, the likelihood of sperm present in the semen after reversal (patency rate) was 96% and the pregnancy rate was 75%. On the other hand, when the obstructed interval was greater than 15 years, the patency rate was 70% with the pregnancy rate was 30%. Most men presenting to reversal have obstructed intervals between 3-14 years, the patency rate was 78%-87% and the pregnancy rate was 44-53%. In interpreting this data, one should keep in mind that the age of the female partner plays a very important role in the pregnancy and delivery rate.

It is important to point out with longer obstructed interval, the higher the likelihood that a more complex reconstruction may be required. The operation is called the epididymovasostomy (EV). At the time of the surgery, it will be determined whether EV will be necessary. The success for epididymovasostomy is lower than for the standard vasectomy reversal.

Vasectomy reversal is done as outpatient. Anesthesia will be either general or spinal. Oral pain medication will be prescribed and is generally required for 24-48 hours. Tylenol or Motrin may also be used. No heavy lifting, sports, or sexual activity should be engaged for 4 to 6 weeks. You may return to work in 7 days unless your job is physically demanding, then a 10-14 day wait is recommended. Semen analysis will be obtained at 3 months post op. Sperm may not return for 6 months or more following VV and for up to 12 months following EV.

The average length of time to achieve pregnancy is about one year. 3-5 % of initially successful VV may develop recurrent obstruction after sperm were initially present. I recommend that you consider sperm banking once the sperm count has peaked to safeguard against this problem. Bleeding and infection are uncommon. Scarring and persistent pain at the operative site occur rarely.



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## Epididymovasostomy (EV)

Occlusion of the male reproductive duct is noted in 10-20% of all infertile men. It is very important for the diagnosis to be made since it is potentially correctable. The cause of ductal obstruction includes congenital absence or narrowing of the duct, scarring due to infection and vasectomy. The epididymis is the structure behind the testicle, it is made of coils of tiny tubule through which sperm migrate and mature. The procedure to correct epididymal obstruction is epididymovasostomy during which the vas deferens is attached to an epididymal tubule in order to bypass the obstruction in between.

The patency rate for epididymovasostomy is about 50-60% with a pregnancy rate of 30-40%. Some men may not have sperm present for up to 12 months after surgery. Pregnancy may take one to two years to achieve. Up to 10% of initially successful EV may develop recurrent obstruction after sperm were initially present. I recommend sperm banking as a safeguard against this problem.

You may also consider the option of sperm harvest at the time of EV. In men whose procedures failed, the need for sperm remains. We can either collect sperm from the epididymal fluid or remove a small piece of the testis for sperm extraction. This sperm can then be used for IVF or be substituted later with ejaculated sperm. The advantage of ejaculated sperm is that the much cheaper insemination may be feasible if the ejaculates contain sperm of sufficient quantity and quality.