



When you read up about your physical condition, you take an important tool into your own hands. The more you know about your physical condition, and the more positive steps you take, the better your chance for positive outcomes and treatment success.

Health Topic: Vasectomy

Vasectomy is an easy way to achieve permanent sterilization for men. The commonly used name vasectomy is actually not completely accurate. The term vasectomy actually implies complete removal of the vas deferens while in reality the vas deferens is only cut and then ligated (occluded) to prevent the passage of sperm cells. The technically correct term would thus be more accurately stated as *vasal ligation* but we will continue to use the simpler name vasectomy. Sterilization is the result of this occlusion of the vas deferens. Any man considering a vasectomy should view the procedure as permanent. Vasectomy reversals are possible but not always successful. Reversals are also expensive and usually not covered by health insurance.

Anatomically, the vas deferens is the tube that carries sperm from each testicle to the urethra for ejaculation resulting in possible pregnancy. The sperm or spermatozoa are the cells produced in the testicle that look like a tadpole that can fertilize an ovum (or egg) in the female. Semen consists of the sperm as well as fluids produced in the prostate and seminal vesicles. The majority of the volume of semen comes from the prostate and the seminal vesicles. Sperm, the “active ingredient” of semen, comprises only about 5-10% of the total volume of semen. Therefore, after a man has a vasectomy, ejaculation seems to be perfectly normal with a normal amount of semen produced. The “active ingredient” is absent however and pregnancy cannot occur without sperm present.

The procedure of vasectomy is a minor operation that can be typically done in the office under local anesthesia. There are different methods of performing a vasectomy which include the single puncture no scalpel technique or the traditional two incision technique. Either method produces the exact same result, sterilization. The procedure usually takes about 15-30 minutes. Lidocaine, a local anesthetic is used to numb the skin and vas deferens. There is slight discomfort with the numbing injections but this discomfort quickly resolves once the lidocaine takes effect. As with any surgical procedure, limited physical activity is recommended for the first few days after the procedure. Exercise and sexual activity can typically be resumed after 5-7 days. A man is not sterile until the remaining spermatozoa are cleared from the vas. This process usually requires 12-15 ejaculations over six weeks. Some men may take longer to achieve sterility. A semen check is required in the office post-operatively to verify sterility.

Potential complications of vasectomy, while rare, can occur. These include bleeding, swelling, infection and development of a sperm granuloma which is a small pea sized lump around the vas

which usually does not require treatment. Failure of vasectomy to achieve sterilization is rare but can occur. Failure rates on the average are about 1 in 500 to 1 in 1000 and vary based on the skill and experience of the surgeon. Urologists perform this operation very commonly and are the most experienced surgeons to perform vasectomies. Post vasectomy pain syndrome may also occur which is a chronic testicular pain after vasectomy. This is usually self limited and rarely requires surgical treatment.

Permanent sterilization alternatives for couples include vasectomy for men and tubal ligation for women. Tubal ligation is a much more invasive, intra abdominal operation performed by gynecologists. The ease of vasectomy in an office setting combined with a low complication rate has made vasectomy a very popular choice.