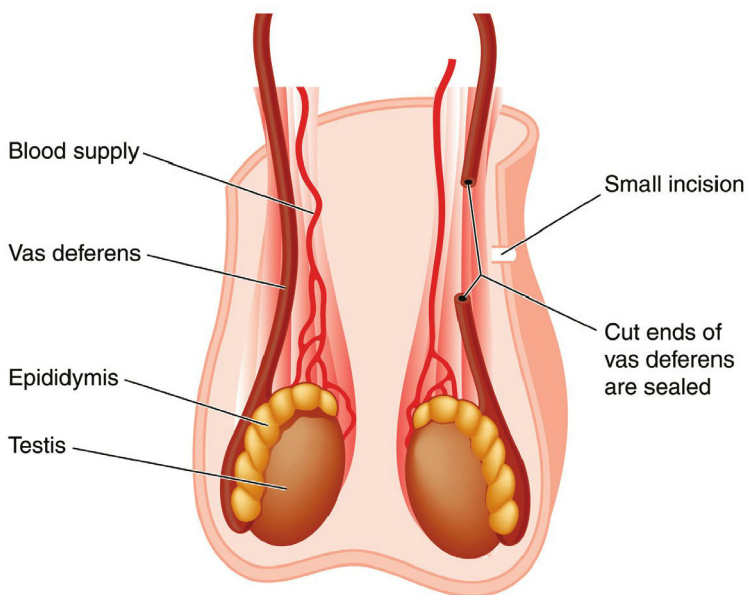


ANATOMY LESSON

UROLOGICAL THERAPIES & TREATMENTS



Making the Cut: The Anatomy of a Vasectomy

Like many Latin medical terms, the word “vasectomy” neatly describes the procedure. The “vas” prefix refers to the “vasa deferentia” (plural of “vas deferens”), which are the two thin tubes through which sperm travel from the testicles through the urethra and out of the body. The “-ectomy” suffix refers to “cutting” or “blocking.” Thus, a vasectomy—a reliable form of birth control for men—is the cutting or blocking of the vasa deferentia.

In popular culture, a vasectomy is referred to as “getting the snip,” and one common vasectomy method still uses a scalpel to deftly cut the tubes, with one or both of the loose ends then sealed with stitches or by cauterizing (burning). Another method uses a scissors-like instrument called a “hemostat” to do the cutting. In both cases, the doctor will access the vasa deferentia through the scrotum. The operation is an out-patient procedure, requiring a local anesthetic and usually taking about 30 minutes.

After a vasectomy sperm cells are still produced, but they are simply reabsorbed into the body. Ejaculation is as normal because semen is mostly comprised of fluids produced in the seminal vesicles and prostate, both unaffected by the procedure. Typically, patients can have sexual intercourse one to two weeks after the operation (sometimes a follow-up sperm count is done to ensure complete success).

Vasectomies have an extremely low failure rate and are (or were) considered permanent. These days, a vasectomy is reversible: the vasa deferentia can be carefully reconnected using microsurgery (a “vasovasostomy”), although this is a costly and difficult procedure with only a 50% to 70% success rate.

ANNOTATION

VAS DEFERENS

Either of two thin muscular tubes that propel sperm from the testes to the urethra.

EPIDIDYMIS

There are two of these, one for each testicle, where sperm mature while waiting to exit the body.

TESTICLE, OR TESTIS

Men have two testicles (or testes) where sperm cells and testosterone (the male sex hormone) are produced. Both testicles lie in the scrotum where they are kept slightly cooler than the rest of the body.

Male Reproductive System Facts:

- ▶ Both semen and urine exit the penis via a tube called the urethra.
- ▶ Semen is a mixture of less than 1% sperm cells and 99% seminal secretions.
- ▶ Two glands make seminal secretions—the prostate makes about 30%-40% of secretions and two seminal vesicles produce the rest.
- ▶ It is thought that prostatic fluid—which has a high zinc content—protects sperm cells and helps them to swim.
- ▶ Secretions made by the seminal vesicles contain fructose, which gives sperm a source of energy.
- ▶ A human sperm cell measures about 2.5 to 3.5 microns across its head. A micron is 0.000001 meters.