

How does a vasectomy work and can it be reversed?

February 21 2019, by James Dunn



Men who don't want any more kids will often choose to have a vasectomy.
Credit: shutterstock.com

Some men may shudder at the thought of "the snip". But vasectomies are a safe and effective form of contraception for men who have completed

their family, or don't wish to have children.

Medicare data shows [more than 25,000 Australian men](#) have had a [vasectomy](#) in the last financial year. The relatively simple surgical procedure involves disrupting the sperm-carrying tubes in the scrotum to prevent sperm from getting into the seminal fluid when a man ejaculates.

Typically, sperm only make up around [2-5% of total ejaculate volume](#). That means following a successful vasectomy, at least 95% of the end product will still remain, while eliminating the risk of pregnancy.

The procedure

Generally, vasectomies are carried out under local anaesthetic. The surgery can usually be completed within [15-30 minutes](#).

In the "no-scalpel" method, a [single puncture](#) is made through the scrotum using specialised equipment. The tubes can then be accessed without having to make an incision. This method is considered best practice as it is minimally invasive, does not require stitches and results in very little scarring.

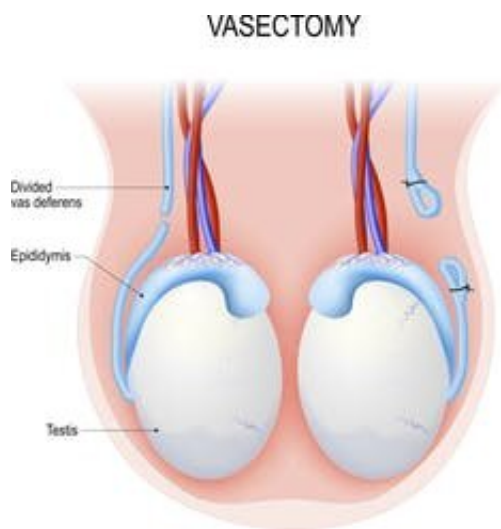
There is also the more traditional incision method where a scalpel is used to make one or two small access points through which the doctor performs the procedure.

For anyone worried about the function of the penis after the procedure, the penis actually has very little to do with a vasectomy. An incision, or a puncture, is made into the scrotum, and the focus of the procedure is the small internal tubes which connect the testes to the penis, called the vas deferens. The vas deferens carry sperm from the testicles to the prostate where it's mixed with semen for ejaculation.

In most procedures, around 1-2cms of the vas deferens will be removed to minimise the chance of the tubes rejoining later on.

Techniques to close the ends of the vas deferens include [cauterisation](#) (electrical or thermal burning to create scar tissue) and [ligation](#) (tying the tubes).

Some of the highest success rates involve an "open ended" technique ([successful at least 99.5% of the time](#)). This is where the upper portion of the tube is either cauterised or ligated while the end closer to the testes remains open. This has a lower risk of complications than other methods and appears to be [a popular choice](#) among Australian doctors.



This process of a vasectomy involves severing the vas deferens. Credit: shutterstock.com

How successful are vasectomies?

Generally vasectomies are very effective, with success rates [well above](#)

[99%](#) and with minimal long-term complications.

Potential complications immediately after surgery include infection and haematoma ([internal bleeding](#)), but the risks of such complications are small ([1-2%](#)). The risk is even less when the ["no-scalpel" method](#) is used.

The most common long-term complication of a vasectomy is pain in the scrotum, yet this only affects [about 2%](#) of men. It is believed the "open-ended" method minimises the chance of this happening.

Importantly, vasectomies are only fully effective after [around three months](#) as it takes time for sperm to clear completely from the vas deferens. So it's sensible to continue to use an alternative form of [contraception](#) immediately following the procedure, until given the all-clear by a doctor.

Reversals

Someone who has had a vasectomy may wish to have the procedure reversed, for a variety of reasons.

Not every service that offers a vasectomy will offer a vasectomy reversal, called a vasovasostomy. But it can be done. The procedure essentially involves reconnecting the previously disconnected vas deferens.

Of vasectomised men, [around 3-6%](#) opt to have a vasectomy reversal, after which successful pregnancy may be achieved in [up to 80%](#) of cases.

There are many factors that could affect this chance. The age of the female partner is among the most significant.

It's also important to note that the longer the duration since the vasectomy, the lower the odds of a successful reversal and future pregnancy.

In some cases, if a couple want more children following a vasectomy, a more realistic and [time-efficient](#) option may be IVF. Sperm can still be extracted directly from the testes of a man who has had a vasectomy.

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