

# **Vasectomy Factsheet**

Vasectomy is a surgical operation to make a man unable to father children. It is a very effective, safe and permanent form of contraception.

## **Where are sperm made?**

The male reproductive tract is made up of the testes, a system of ducts (tubes) and other glands opening into the ducts. Sperm are produced in the testes and at the start of ejaculation, waves of muscular contractions transport the sperm through to the vas deferens. Each vas deferens runs through an ejaculatory duct, which passes through the prostate gland to join the urethra below the bladder.

Only a small amount of fluid, which also contains all the sperm, comes from the testes. About 90 per cent of semen actually comes from other glands of the male reproductive tract (seminal vesicles and prostate gland). This mixture of fluid travels along the urethra to the tip of the penis where it is discharged (ejaculated) at the time of sexual orgasm (climax).

## **How common is vasectomy?**

More than 25,000 men have a vasectomy in Australia each year. In total, about one in four men over the age of 40 have had a vasectomy. About three per cent of these men will look into having more children by having the procedure reversed (vasectomy reversal) or by using assisted reproductive technologies.

## **Who performs a vasectomy?**

Vasectomy can be performed under local or general anaesthesia by a specialist (urologist, general surgeon or local doctor [Dr Izak Bakker at Westbrook Medical Clinic]) in a hospital or private rooms. A referral to a specialist can be given if general anaesthesia is required. Local doctors and family planning general practitioners often also perform vasectomies.

## **What happens with a vasectomy?**

Under anaesthetic, the scrotum is cut on both sides and the vas deferens drawn out. The exact surgical procedure varies slightly but usually involves the vas deferens being cut and a small piece removed, with the ends being tied and/or sealed using heat.

## **Does ejaculation still happen?**

After a vasectomy, sperm are still produced and leave the testes, but are stopped in the epididymis (the collecting tube that lies along the back of the testes) where they are reabsorbed into the body.

The man can still reach orgasm, and his semen volume does not noticeably reduce, but it will no longer contain sperm.

It is important to note that vasectomy does not protect against sexually transmitted infections (STIs).

### **Does having a vasectomy affect sex drive?**

There is no evidence that vasectomy alters a man's sex drive or blood testosterone (male sex hormone) level.

### **Are there any side effects?**

After the operation, which takes around 15 minutes, men should not do any heavy lifting or have sex for a few days. There may be some discomfort and bruising and in a small percentage of men, repeat surgery to drain a blood clot in the tissue (haematoma) may be necessary.

As with any operation, a small number of men may experience pain and/or infection. Less than one per cent of men experience long-term pain or discomfort in the scrotum that can be difficult to treat.

There is no evidence that a vasectomy increases the chance of health problems (including prostate cancer).

### **How quickly does vasectomy work and can it ever fail?**

In the first few months after a vasectomy, sperm are still clearing out of the ducts and some sperm could appear in the semen. Using another method of contraception for this period of time is important to avoid pregnancy.

Men need to have a semen analysis about 12 weeks after vasectomy to check live sperm no longer appear in the semen.

Even after an initial negative sperm count, in about one in 500 men, sperm may reappear months or even years later. This does not mean that the original vasectomy was not performed properly. It seems that in some men, new passages for sperm to 'bypass' the vasectomy site develop.

### **Why should sperm storage be thought about before vasectomy?**

Men planning a vasectomy should think about storing sperm beforehand. This may remove the need for vasectomy reversal.

It must be remembered that regaining fertility after vasectomy is neither easy nor cheap. In about half of cases, vasectomy reversal surgery does not enable couples to become pregnant naturally.

If sperm have been stored before the vasectomy, under the care of an infertility clinic, the female partner can be inseminated at the mid-point of her menstrual cycle or the sperm used in an in vitro fertilisation (IVF) procedure.

### **Is vasectomy right for you?**

Vasectomy should be considered a permanent form of contraception (sterilisation). Speak with a specialist before treatment as it is important to understand the benefits and risks of the procedure.

- if you are sure you have completed your family
- if your partner or wife is also sure
- if you want to take responsibility for family planning
- if you want an effective, permanent method of contraception with no follow up treatment.

If you answered 'yes' to one or more of the above, THEN, vasectomy may be right for you.

- if you are relatively young and do not have any children
- if you are not in a relationship, or you have separated or divorced
- if you are having relationship or marriage problems.

If you answered 'yes' to one or more of the above, THEN, vasectomy may not be right for you.

### **Can a vasectomy be reversed?**

Vasectomy should be considered an irreversible procedure. Anyone with significant doubts about this should not have it done. However, some men consider having a reversal if they wish to have more children, for example, due to a new relationship forming or death of a child.

Vasectomy reversal involves rejoining the cut ends of the vas deferens using microsurgery. The operation is much more complex than the original vasectomy and is usually done under general anaesthetic by a specialist using an operating microscope.

### **What is the success rate of a vasectomy reversal?**

How and when the original vasectomy was performed can affect the chances of a vasectomy reversal being successful. There is less chance of success if:

- heat (diathermy) was used to close either end of the vas deferens
- a larger amount of vas deferens was removed
- the time between the vasectomy and reversal is lengthy (if more than 10 years has passed since the vasectomy, the chance of having sperm reappearing in the semen after a reversal is greatly reduced)
- other blockages develop in the epididymis.

There are other reasons pregnancy may not happen after reversal surgery.

First, while sperm are still produced in the testes, their number decreases slowly over time so that sperm counts may not return to normal even though the vasectomy reversal procedure (i.e. rejoining the two cut ends of the vas deferens) is successful.

Finally, sperm normally mature in the epididymis prior to ejaculation, but this process may not happen normally if the epididymis has been extensively damaged.

### **What are sperm antibodies?**

After vasectomy, many men start to produce antibodies to sperm. Antibodies are proteins made in the body by the immune system to fight infection or disease. Sperm antibodies occur in four in every five men after a vasectomy.

Often these antibodies do not cause a fertility problem. However, in some men, sperm antibodies can interfere with the ability of sperm to swim and to attach to eggs thereby preventing conception even if the vas deferens is successfully rejoined.

### **What if vasectomy reversal is not successful?**

Many men who have had a vasectomy, or who have already undergone an unsuccessful vasectomy reversal, seek assisted reproductive technology (ART) as a possible way to achieve pregnancy.

### **What is assisted reproductive technology (ART)?**

Sperm can be easily collected from the epididymis or testis using a fine needle under local anaesthesia. These sperm can then be injected one by one into eggs collected from the female partner in a process called intracytoplasmic sperm injection (ICSI).

This treatment is done under the care of an ART specialist and such centres are widely spread across the country.

The success of the ICSI procedure largely depends upon the age and health of the female partner. The relative success rate, cost and risks of this treatment, as compared to vasectomy reversal, varies with the couple and should be talked about with the specialist.