

# Fertility after Vasectomy

## A Guide for Couples

Professor Steve Robson

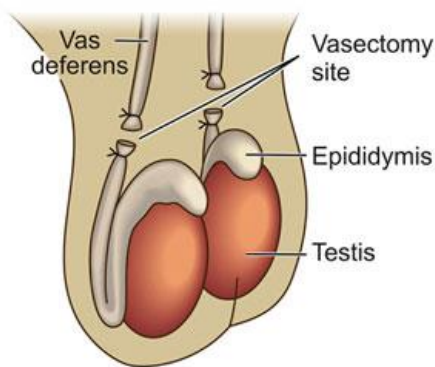


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# Vasectomy is Common

Vasectomy is a common procedure, with over 15000 vasectomies performed in Australia every year. While vasectomy is undertaken as a permanent procedure, for many men and couples – circumstances change. Some couples who had thought their family was complete, a decision will be made to try for another child. In other cases, men will establish a new relationship and wish to begin a new family.

For all of these reasons, many men will find themselves wishing for another child after they have had a vasectomy. The guide is designed to help men and couples with decision-making about their options for starting a family after a vasectomy.



## What is a Vasectomy?

A vasectomy is a form of permanent sterilisation for men. The *vas deferens* is the tube that carries sperm from the testicles – where they are made – to the storage area near the prostate gland. In the commonest type of vasectomy, a small piece of the vas is removed. This provides a physical block to the sperm reaching the ejaculate.

*Life's circumstances change for many men and couples. Thinking about another child after a vasectomy is a common situation...*



# What *are* our options after a Vasectomy?

## Reversal of the Vasectomy

Reversal of vasectomy is a surgical procedure in which the two ends of the vas deferens are carefully re-joined using the techniques of microsurgery.



When a vasectomy reversal is performed, there also is the potential to obtain some sperm from the vas and store it as a precaution in case IVF is considered in the future.

Because reversal of vasectomy is a much less common procedure these days, fewer surgeons are maintaining expertise. If you are choosing a vasectomy reversal, it is very important to find out about the experience of the surgeon offering the procedure.

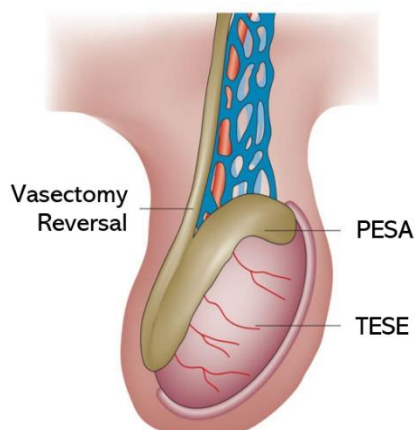
In most cases, the vasectomy reversal can be performed as a day case. It is normal to have pain for several days afterwards, and it may be necessary to take a week or more away from work to allow adequate recovery.

Whenever scrotal surgery is performed, there is a chance of bleeding and infection. It is also possible that the procedure will not be successful. It can take up to six months for sperm to return to the ejaculate.



## IVF techniques and needle aspiration of sperm

It is usually possible to use a small needle to obtain sperm from one or both testicles after a previous vasectomy. Enough sperm are usually obtained to allow IVF procedures to be used. Sperm are typically obtained from the tubules within the testis ('Testicular exploration and sperm extraction' – TESE) but may also be obtained from the epididymis that is attached to the testicle ('Percutaneous epididymal sperm aspiration' – PESA).



Although needle aspiration techniques are very safe and effective, there is always a possibility of an adverse outcome. For example, bleeding into the scrotum may occur. There is also a small chance of infection following a TESE or PESA procedure. It is possible that sperm cannot be obtained.

Perhaps the most important consideration is that the women must undergo an IVF procedure. The fertility of the female partner is one of the most important considerations in making the choice between reversal of the vasectomy or opting for needle sperm aspiration and IVF.

# Vasectomy Reversal or IVF?

The choice between reversal of a vasectomy and IVF with needle sperm aspiration techniques can be difficult, and it is important to look at the choice as a couple issue. One of the important factors is the fertility status of the woman.

In studies where the woman of the couple is young and healthy, there is little difference in the chance of having a child when reversal is compared with IVF. However, of men who chose reversal in the first instance, **more than half ultimately underwent IVF treatment**. Overall, couples who chose the IVF pathway had a child about a year earlier than those who opted for reversal.\*

\*Valerie U, and colleagues. Pregnancy after vasectomy: surgical reversal or assisted reproduction?, *Human Reproduction*, Volume 33, Issue 7, July 2018, Pages 1218–1227

Before making any decisions, it is important that couples have a thorough assessment of the woman's fertility. If there are problems that would indicate assisted reproduction is likely to be required (for example, endometriosis or a problem with the fallopian tubes) then there is little point in undergoing a reversal of the vasectomy. Also, because of the long delay between reversal and pregnancy that commonly occurs, women in an older age group should consider IVF in the first instance.



## In summary...

- ✓ Vasectomy is a common procedure, with more than 15000 vasectomies performed in Australia every year.
- ✓ Studies show that almost 10% of men will wish to try for another child after vasectomy, either in the same relationship or when life's circumstances and relationships change.
- ✓ Reversal of vasectomy is an operation involving microsurgical techniques, in which the end of the vas deferens are joined together. There is no guarantee that the procedure will work, and scientific studies show that about half of men who undergo a vasectomy reversal will ultimately have another child.\* However, in more than half of cases the couple ultimately undergo IVF anyway.
- ✓ IVF should be considered in the context of a woman's fertility. Before making a choice, the couple should undergo a thorough assessment and if there are issues found with the woman's fertility status – or, in particular, if the woman is in an older age group – then IVF may well be the most appropriate option.
- ✓ The choice is common but difficult, so take the time to undergo a thorough assessment before coming to a final decision.

## About Professor Steve Robson MD PhD



**Steve Robson** is internationally recognised as one of the world's foremost specialists. In 2019, Steve was the recipient of the American College of Obstetricians and Gynaecologists highest honour - the **Distinguished Service Award**.

Steve undertook his specialist training in Australia, England, and Canada. In his first year of formal training in IVF and reproductive medicine in 1998 he won the **Young Clinician's Prize** of the Fertility Society of Australasia (FSA).

**Steve Robson** is the immediate past-President of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), and is Professor in Obstetrics and Gynaecology at the Australian National University. He holds two doctorates, both a Doctor of Medicine (MD) and PhD, as well as Fellowships of the Australian, British, and American Colleges of Obstetricians and Gynaecologists.

Steve was appointed by the Health Minister to the National Health and Medical Research Council (NHMRC), as well as to the National Endometriosis Advisory Group – part of the National Action Plan for Endometriosis.

Professor Robson is one of the authors of the *Oxford Textbook of Obstetrics and Gynaecology*, and as a researcher is the author of hundreds of research articles, editorials, reviews, and book chapters. His research has been published in the most prestigious international IVF journals – *Fertility and Sterility*, and *Human Reproduction*.

He has published research papers not only on IVF and assisted reproduction, but also on reproductive surgery and endometriosis surgery.

In addition, Professor Robson is Chair of the organising committee for the International FIGO meeting in 2021, and is a member of the internationally ground-breaking *Mackenzie's Mission* project.

