

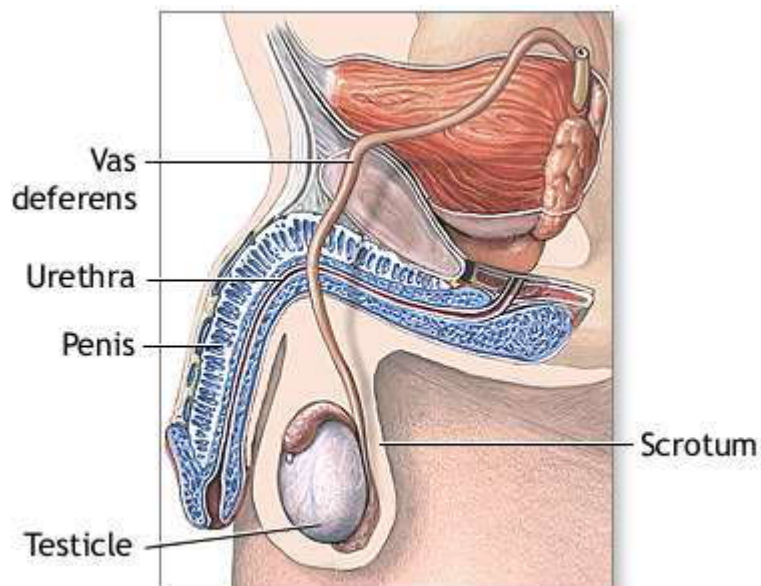
Mr C Dawson
Consultant Urological Surgeon
Fitzwilliam Hospital
Peterborough



Reversal of Vasectomy

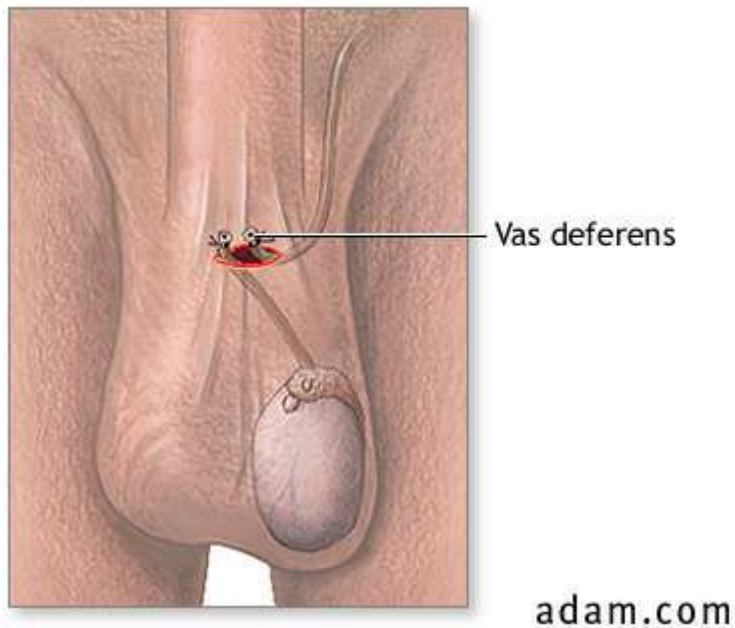
What exactly is a reversal of Vasectomy?

First of all, the vas deferens is the name of the tube that carries the sperm from each testicle, up into the groin and then deep inside the body to the base of the penis. The sperms are then ejaculated in the semen.



adam.com

A vasectomy means that a piece of the vas on each side is taken out just above each testicle and the ends are tied off. The sperm cannot pass into the penis, so you will no longer be fertile.



A **reversal of vasectomy** is an operation to rejoin the ends of the vas deferens on each side to attempt to allow sperms to pass from the testicles into the semen.

How is it performed?

Through a small incision in the scrotum (on both sides) the vas deferens tube is dissected out and any scarred tissue from the previous vasectomy is removed so that good quality vas deferens is used for the anastomosis (joining together of the tubes). The ends of the vas deferens tubes on each side are then sewn together so that the ends are in close proximity¹.

As the ends of the tubes are very small some form of magnification is required during the procedure to assist the surgeon. In some cases this is achieved using a microscope. The majority of vasectomy reversals in the UK are carried out using loupes (magnifying spectacles) and placing a single layer of sutures into the vas deferens tubes². The procedure carried out by Mr Dawson at the Fitzwilliam Hospital is the macroscopic technique using loupes for magnification. Please note that we do not have facilities for testing for sperms in the seminal fluid at operation, nor of storage of any sperms which may be present in the semen.

¹ *BJU International* (2003), **92**, 6500

² *BJU International* (2000), **86**, 474-478

What complications may occur?

As with any operation there is a risk of infection or bleeding in the wound. Normally this would be spotted early and appropriate treatment given.

After the operation

After a general anaesthetic you will not have any discomfort for an hour or two, so that is a good time to get home. Take aspirin or paracetamol if you feel discomfort coming on. Take things quietly for 48 hours. You should not drive a car for 24-48 hours after the anaesthetic

On the next day you may feel sore. You can take off the dressings and wash or shower. You will have spare dressings to cover the wound. Use underpants to hold them on.

On the third day you may notice black bruising in the skin. This fades away in a few days.

What are the chances of success of vasectomy reversal?

To begin with this depends on what is meant by "success". The aim of the procedure is to restore sperms to the semen and the normal patency rate (i.e. presence of sperms in the semen) for vasectomy reversal using the macroscopic technique - i.e. not using a microscope - is approximately 50%^{3,4}.

This means that sperms will be seen in the semen of approximately half of men undergoing vasectomy reversal using this technique. Successful vasectomy reversal does **not** guarantee that pregnancy will ensue as there are a number of other reasons why pregnancy may not occur even if sperms are present in the semen.

Patency rates with microscopic techniques are generally accepted as being higher, in the region of 90%⁵. Again, the presence of sperms in the semen does not guarantee that pregnancy will follow.

Several studies have shown that the duration of time between the original vasectomy, and the vasectomy reversal, can have a significant effect on the likelihood of success of the reversal of vasectomy.

Men with duration of obstruction of less than 5 years are more likely to become fertile after vasectomy reversal than those where the duration is 6-10

³ *BJU International* (2003), **91**, 839-844

⁴ *BJU International* (2000), **86**, 474-478

⁵ *BJU International* (2000), **86**, 474-478

years, and men with duration of obstruction 10 years or longer are unlikely to become fertile after vasectomy reversal⁶.

There is also evidence that the quality of sperms in the semen after successful vasectomy reversal may be poor and that this may contribute to failure to conceive after an otherwise successful operation.

Circulating antibodies to sperms (Anti-sperm antibodies - ASAs) can be detected in the serum of 60–80% of men after vasectomy, and their presence in large quantities⁷ can sometimes be associated with poorer sperm values and lower chances of pregnancy if reversal is attempted⁸.

Some reports have therefore suggested that tests for ASAs should be performed and patients with high numbers of ASAs should be offered the option of surgical sperm retrieval (TESE) followed by ICSI (see below) which is currently the recognised treatment for ASAs⁹.

Not all men with antisperm antibodies are infertile and some authors have suggested that the significance of ASA in men with infertility problems is controversial¹⁰. We do not routinely test men requesting vasectomy reversal for antisperm antibodies, but this test is available if required.

Pros and cons of macroscopic versus microscopic vasectomy reversal

Microscopic vasectomy reversal has higher patency rates than the macroscopic technique but the costs are higher. The macroscopic technique is shorter and easier to perform and costs less. In Peterborough this procedure is performed as a day case under a general anaesthetic.

The Microscopic technique is not available at the Fitzwilliam Hospital.

Are there any alternatives to vasectomy reversal?

Vasectomy reversal is often the first choice technique for men who have previously had vasectomy. If successful the procedure offers the possibility of conception by sexual intercourse.

In some cases it is possible to extract sperms directly from the testicles. This is known as testicular sperm extraction or TESE. These extracted sperms can then be injected into a mature female egg in a process known as ICSI (Intracytoplasmic sperm injection). This technique may sometimes be an option after a failed vasectomy reversal where either there are no sperms present in the semen at all after reversal, or where the number or quality of any sperms found in the semen is poor.

⁶ Silber SJ. Microscopic vasectomy reversal. *Fertil Steril* (1977) **28**, 1119-20

⁷ Titres of ≥ 512

⁸ *BJU International* (2003), **91**, 839-844

⁹ *ibid*

¹⁰ *Urol Clin North Am* (2002), **29:4**, 873-894

Another alternative to vasectomy reversal in some cases is adoption.

How do I know if my vasectomy reversal has been successful?

When you go home you will be given a specimen pot and a request form for a semen test to be performed approximately 8 weeks after your reversal. You will need to make an appointment at Peterborough District Hospital for a time and date when you can deliver the semen sample. Please note that the department often has a waiting list – **please make an appointment for the test well in advance of the desired 8 weeks.**

The result will be available approximately 7-10 days after you have completed the sample and Mr Dawson will write to you with the results.

You should be aware that in cases where the operation has been successful, and sperms are present in the semen, the average time from reversal to conception is 12 months¹¹.

What about work?

You must be prepared to have 48 hours of complete rest at home after the operation to minimise the risk of bruising. When you are able to return to work will depend in part on the nature of your occupation. If you have a physical job you may need more time off at home.

What about sport?

It is sensible to avoid sports for a minimum of two weeks.

What about sex?

You can start again as soon as the wound is comfortable. This will probably be about two weeks.

Are there any risks?

There is always a swelling about the size of a marble on each side due to the internal stitches and minor bleeding. This settles down in a week or two.

Perhaps 1 in 100 men notice bleeding which causes swelling bigger than marble size or which comes through the dressings. If this happens (it will be in the first 12 hours), get surgical help immediately. This will be available.

Very rarely there is some pain and discharge due to infection 4 or 5 days after operation. This responds to antibiotics.

Minor twinges may be felt for several weeks.

¹¹ *BJU International* (2003), **91**, 839-844

Any Questions?

If you have any questions, jot them down here and ask Mr Dawson

DISCLAIMER

THE MOST STRENUOUS EFFORTS HAVE BEEN TAKEN TO ENSURE THAT THE INFORMATION CONTAINED WITHIN THESE PAGES IS FACTUALLY CORRECT AND CONTAINS UP TO DATE INFORMATION.

HOWEVER, NEITHER THE AUTHOR, THE FITZWILLIAM HOSPITAL, NOR ANY OF THE PERSONS MENTIONED IN THESE PAGES WILL ACCEPT RESPONSIBILITY FOR ANY INJURY TO PERSONS OR PROPERTY WHICH MAY OCCUR AS A RESULT OF ADVICE OR IDEAS CONTAINED WITHIN THESE PAGES.

YOU ARE THEREFORE MOST STRONGLY ADVISED TO SEEK COMPETENT MEDICAL ADVICE FROM A REGISTERED MEDICAL OR SURGICAL PRACTITIONER

© Mr C Dawson 2008: All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without prior written permission from the Author.