REVERSAL of VASECTOMY

Information about your procedure from The British Association of Urological Surgeons (BAUS)

This leaflet contains evidence-based information about your proposed urological procedure. We have consulted specialist surgeons during its preparation, so that it represents best practice in UK urology. You should use it in addition to any advice already given to you.

To view this leaflet online, scan the QR code (right) or type the short URL below it into your web browser.

http://rb.gy/mebh7

KEY POINTS

- The procedure is performed to reverse a male sterilisation procedure (vasectomy); it is requested by approximately 6% of men (1 in16) who have previously had a vasectomy
- Vasectomy reversal is performed through one (or two) incisions in the scrotum, using a microscope or other magnification
- Vasectomy reversal is not normally available on the NHS
- The chance of a successful outcome (i.e., pregnancy) is directly related to the time interval between the original vasectomy and its reversal, and the age of your current partner

What does this procedure involve?

Re-joining the vasa deferential (sperm tubes in your scrotum), which were previously either divided and cauterised, or tied off using fine sutures.

What are the alternatives?

- **Assisted reproductive techniques** e.g. following surgical sperm retrieval (testicular sperm aspiration, TESA; or percutaneous sperm aspiration, PESA)

Whether you decide to have a vasectomy reversal or to opt for assisted reproductive techniques will depend on several factors:

- the length of time since your vasectomy
- your partner's age

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- the number of children you may wish to have
- the costs involved

In general terms, if your vasectomy was performed less than 20 years ago, your current partner is less than 35 years old and you wish to have more than one child, vasectomy reversal is a better approach (*see table below*).

Interval (years)	Patency rate	Pregnancy rate
Less than 3	97%	75%
3 to 8	88%	50 – 55%
9 to 14	79%	40 – 45%
15 to 19	70%	30%
20 or more	40%	Less than 10%

Assisted reproductive techniques are usually performed by your local Fertility Centre or Department of Reproductive Medicine. You may be able to find their success rates from their website, or you can request them by direct contact. On average, the success rate of assisted conception is between 30% and 40% but other factors (e.g. your partner's age & health) also affect this.

Patency (the presence of sperms in your ejaculate) does not guarantee a natural pregnancy. Your partner may still need some form of assisted reproductive technique to get pregnant.

There will be a delay of roughly three to six months after your vasectomy reversal before you get adequate levels of sperm in your ejaculate to start trying for a natural pregnancy.

What happens on the day of the procedure?

Your urologist (or a member of their team) will briefly review your history and medications, and will discuss the surgery again with you to confirm your consent.

You will be seen by an anaesthetist who will discuss the options of a general anaesthetic or spinal anaesthetic. The anaesthetist will also discuss pain relief after the procedure with you.

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You may be given a pair of TED stockings to wear, and a heparin injection to thin your blood. These help to prevent blood clots from developing and from passing into your lungs.

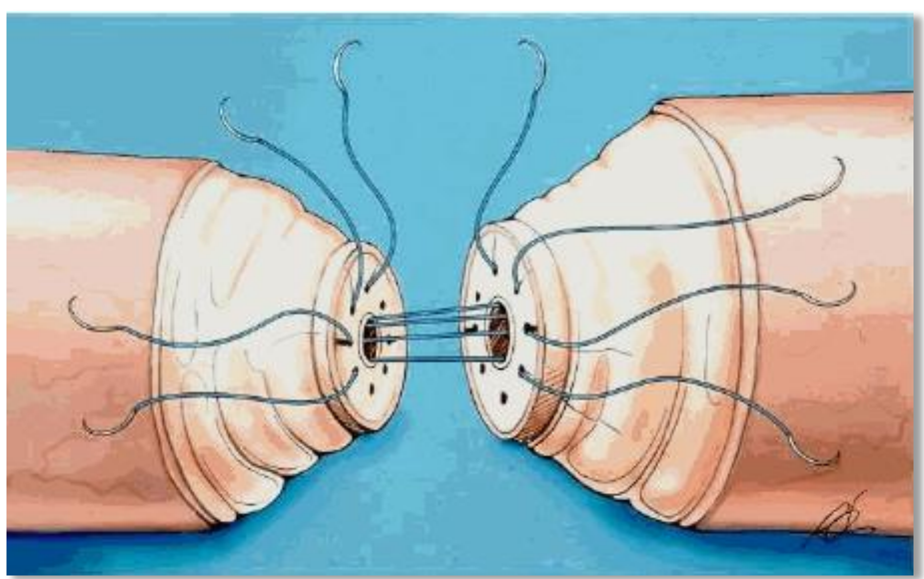
What is the cost of vasectomy reversal?

Vasectomy reversal is **not** available on the NHS and usually needs to be performed privately. The total cost for the procedure can be obtained from your urologist or GP.

Companies which provide private medical insurance will **not** cover the cost of vasectomy reversal.

Details of the procedure

- you normally have a general anaesthetic
- we may give you antibiotics into a vein to prevent infection, after checking carefully for any allergies
- we make scrotal incisions and locate the ends of the vasa deferentia (sperm tubes) on both sides.
- we join the ends of the vasa together using magnification and microsurgical techniques (pictured)



- if it is not technically possible to re-join the ends (e.g. if large segments have been removed), we may be able to join the upper ends of the vasa to your epididymis (sperm-carrying mechanism); the

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results of this are not as good as those from re-joining the ends, with lower patency and pregnancy rates compared with the table above
- the procedure can take one to three hours to complete, depending on the difficulty of the procedure
- we close the skin with dissolvable stitches which may take two to three weeks to disappear

Are there any after-effects?

The possible after-effects and your risk of getting them are shown below. Some are self-limiting or reversible, but others are not. We have not listed very rare after-effects (occurring in less than 1 in 250 patients) individually. The impact of these after-effects can vary a lot from patient to patient; you should ask your surgeon's advice about the risks and their impact on you as an individual:

After-effect	Risk
Swelling, discomfort & bruising of your scrotum which may last several days	Between 1 in 2 & 1 in 10 patients
No guarantee that sperms will return to your semen (less likely with increasing time since your vasectomy)	Between 1 in 2 & 1 in 10 patients
Even when sperms are present, you may not be able to produce a pregnancy	Between 1 in 2 & 1 in 10 patients
Miscarriage rate of 15 to 20% (no greater than the risk in the normal population)	Between 1 in 2 & 1 in 10 patients
Blood in your semen for the first few ejaculations	Between 1 in 2 & 1 in 10 patients
Chronic pain in one testicle or a sperm granuloma (painful nodule) at the site of the re-join	1 in 20 patients (5%)

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Blocking off of the reversal, resulting in no sperms being ejaculated when they were initially	1 in 20 patients (5%) each year
Bleeding requiring further surgical intervention	Between 1 in 10 & 1 in 50 patients
Inflammation or infection of the testis or epididymis requiring antibiotics	Between 1 in 50 & 1 in 250 patients
Inability to perform the reversal on one or both sides due to technical issues	Between 1 in 50 & 1 in 250 patients
Anaesthetic or cardiovascular problems possibly requiring intensive care (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)	Less than 1 in 250 patients (your anaesthetist can estimate your individual risk)

What is my risk of a hospital-acquired infection?

Your risk of getting an infection in hospital is between 4 & 6%; this includes getting *MRSA* or a *Clostridium difficile* bowel infection. This figure is higher if you are in a "high-risk" group of patients such as patients who have had:

- long-term drainage tubes (e.g. catheters);
- bladder removal;
- long hospital stays; or
- multiple hospital admissions.

What can I expect when I get home?

- we usually provide you with a scrotal support ("jock strap") to make the post-operative period more comfortable. If you find this difficult to wear, you can use tight, supportive underwear or cycling shorts
- it is advisable to take some simple painkillers such as paracetamol or ibuprofen to help any discomfort in the first few days
- you may find ice packs helpful to reduce pain and swelling in the first few days after surgery (but do not apply them directly to your skin)

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- if your bruising, swelling or pain is getting progressively worse, day-by-day, you should contact your surgical team for advice
- your stitches do not need to be removed and will usually disappear after two to three weeks, although they sometimes take slightly longer
- try to should avoid heavy lifting or exertion for the first few weeks at least
- you will be given advice about your recovery at home
- you will be given a copy of your discharge summary and a copy will also be sent to your GP
- any antibiotics or tablets you may need will be arranged & dispensed from the hospital pharmacy
- information about your follow-up appointments and semen tests will be given to you
- you may feel some lumpiness above or behind the testicle; this is common and often permanent
- on average, sperms can take three to six months to appear in your semen but it can take as long as one year, depending on the nature of the repair performed. Ask your surgeon about a realistic timescale for seeing sperm return, and set a threshold for yourself to consider when to move on to assisted conception (IVF) if sperms do not return.

General information about surgical procedures

Before your procedure

Please tell a member of the medical team if you have:

- an implanted foreign body (stent, joint replacement, pacemaker, heart valve, blood vessel graft);
- a regular prescription for a blood thinning agent (e.g. warfarin, aspirin, clopidogrel, rivaroxaban, dabigatran);
- a present or previous MRSA infection; or
- a high risk of variant-CJD (e.g. if you have had a corneal transplant, a neurosurgical dural transplant or human growth hormone treatment).

Questions you may wish to ask

If you wish to learn more about what will happen, you can find a list of suggested questions called "Having An Operation" on the website of the Royal College of Surgeons of England. You may also wish to ask your surgeon for his/her personal results and experience with this procedure.

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Before you go home
We will tell you how the procedure went and you should:

- make sure you understand what has been done;
- ask the surgeon if everything went as planned;
- let the staff know if you have any discomfort;
- ask what you can (and cannot) do at home;
- make sure you know what happens next; and
- ask when you can return to normal activities.

We will give you advice about what to look out for when you get home. Your surgeon or nurse will also give you details of who to contact, and how to contact them, in the event of problems.

Smoking and surgery
Ideally, we would prefer you to stop smoking before any procedure. Smoking can worsen some urological conditions and makes complications more likely after surgery. For advice on stopping, you can:

- contact your GP;
- access your local NHS Smoking Help Online; or
- ring the Smoke-Free Nationmnal Helpline on **0300 123 1044**.

Driving after surgery
It is your responsibility to make sure you are fit to drive after any surgical procedure. You only need to contact the DVLA if your ability to drive is likely to be affected for more than three months. If it is, you should check with your insurance company before driving again.

What should I do with this information?

Thank you for taking the trouble to read this information. Please let your urologist (or specialist nurse) know if you would like to have a copy for your own records. If you wish, the medical or nursing staff can also arrange to file a copy in your hospital notes.

What sources have we used to prepare this leaflet?

This leaflet uses information from consensus panels and other evidence-based sources including:

- the Department of Health (England);
- the Cochrane Collaboration; and
- the National Institute for Health and Care Excellence (NICE).

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It also follows style guidelines from:

- the Royal National Institute for Blind People (RNIB);
- the Patient Information Forum; and
- the Plain English Campaign.

DISCLAIMER

Whilst we have made every effort to give accurate information, there may still be errors or omissions in this leaflet. BAUS cannot accept responsibility for any loss from action taken (or not taken) as a result of this information.

PLEASE NOTE: the staff at BAUS are not medically trained, and are unable to answer questions about the information provided in this leaflet. If you have any questions, you should contact your Urologist, Specialist Nurse or GP in the first instance.

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