



# OPEN AND MICROSURGICAL REPAIR OF A VARICOCELE

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.

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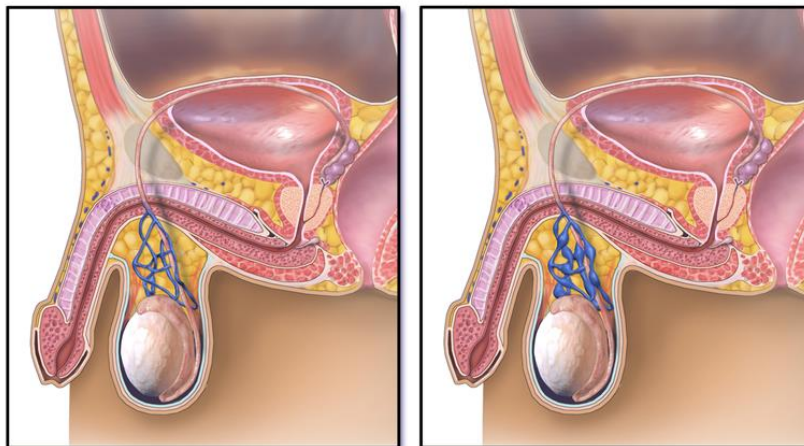
[http://www.baus.org.uk/\\_userfiles/pages/files/Patients/Leaflets/Varico open.pdf](http://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Varico%20open.pdf)

## Key Points

- This procedure involves tying off the varicocele (abnormally swollen, varicose veins above your testicle) in your groin
- It is sometimes performed using an operating microscope to increase the effectiveness of the procedure

## What does this procedure involve?

Tying or clipping the abnormal, swollen testicular veins that cause a varicocele (pictured) through a small incision in your groin.



**Normal**

**Varicocele**

## What are the alternatives?

- **Observation** – if your varicocele does not cause you any pain, or have any impact on how your testicle works (i.e. does not affect your fertility or testosterone levels, and does not make your testicle shrink in size), no treatment is needed
- **Radiological embolisation** - using coils passed through a vein in your neck or groin to block the abnormal, varicose veins without the need for surgery. This is done in the hospital X-ray department
- **Laparoscopic ("keyhole") repair** – clipping the varicose veins using a telescope put into your abdominal (tummy) cavity

## 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.

An anaesthetist will see you to discuss the options of a general anaesthetic or spinal anaesthetic. The anaesthetist will also discuss pain relief after the procedure with you.

We usually provide you with a pair of TED stockings to wear, and we may give you a heparin injection to thin your blood. These help to prevent blood clots from developing and passing into your lungs. Your medical team will decide whether you need to continue these after you go home.









## Details of the procedure





- we usually carry out the procedure under a general anaesthetic as a day case
- you may be given an injection of antibiotics before the procedure, after you have been checked carefully for any allergies
- through a small incision in your groin, we tie or clip the swollen veins at the top of your scrotum
- we sometimes use an operating microscope (pictured) to tie off these veins; this improves the success rate and reduces the risk of complications (see below)
- we close the wound with absorbable sutures which normally disappear within two to three weeks



## 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 of your scrotum lasting several days	 Between 1 in 2 & 1 in 10 patients
Seepage of clear yellow fluid from the wound several days after surgery	 Between 1 in 2 & 1 in 10 patients
The external appearance of the varicocele may not change much initially although the symptoms usually disappear	 Between 1 in 2 & 1 in 10 patients
Development of a hydrocele (fluid swelling around the testicle) several months after the procedure	 Between 1 in 2 & 1 in 10 patients (non-microsurgical)
	 Between 1 in 50 & 1 in 250 patients (microsurgical)
Failure to cure the varicocele (please feel free to ask your surgeon about the technique they will use, as well as data on their own results)	 Between 1 in 2 & 1 in 10 patients (non-microsurgical)
	 Between 1 in 10 & 1 in 50 patients (microsurgical)
Pain or discomfort a few days after the surgery (due to phlebitis in the blocked veins) which may last a few weeks	 About 1 in 10 patients

Haematoma (collection of blood) around the testicle requiring surgical drainage	 Between 1 in 10 & 1 in 50 patients
Damage to, or shrinkage of, the testicle if the blood supply is affected by the procedure	 Between 1 in 10 & 1 in 50 patients (non-microsurgical)
	 Between 1 in 50 & 1 in 250 patients (microsurgical)
Anaesthetic or cardiovascular problems possibly requiring intensive care (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)	 Between 1 in 50 & 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?

- you may get some swelling and bruising of your groin and scrotum for a few days
- 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)
- 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 this may take a little longer
- 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 other tablets you may need will be arranged & dispensed from the hospital pharmacy
- try to avoid any heaving lifting or strenuous exercise for the first two or three weeks
- you may return to work when you are comfortable enough and when your GP is satisfied with your progress
- we will give you information about your a follow-up outpatient appointment
- if your procedure was being done for fertility problems, you will need to see your team for a repeat check of your sperm count three months after the procedure (it takes at least three months to see an improvement in your sperm count after varicocele treatment)

### **Will this get rid of the swollen veins in my scrotum?**

Not always. The swollen veins above your left testicle may become slightly more prominent and uncomfortable at first, because they thrombose (clot off) and may become inflamed (phlebitis) shortly after the surgery. Eventually, they will become less obvious but they rarely disappear completely.

### **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.

#### ***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 free NHS Smoking 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 \(NICE\)](#).

It also follows style guidelines from:

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

## **Disclaimer**

We have made every effort to give accurate information but 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 do have any questions, you should contact your urologist, specialist nurse or GP.