LAPAROSCOPIC (KEYHOLE) 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.

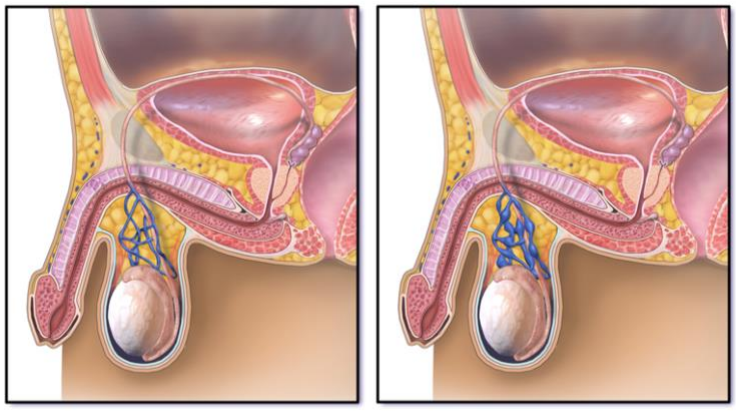
To view the online version of this leaflet, type the text below into your web browser:
http://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Varico lap.pdf

Key Points

- This procedure involves clipping the testicular veins inside your abdomen (tummy) using a telescope
- Almost all varicoceles (collections of varicose veins) occur above the left testicle
- The "keyhole" procedure is normally performed under general anaesthetic

What does this procedure involve?

Tying or clipping the abnormal swollen testicular veins that cause a varicocele (pictured).



This is done by passing a laparoscope (telescope) into your abdominal (tummy) cavity through a small incision in your abdominal wall, to see and clip the swollen veins on the back wall of your abdominal cavity.

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 throuigh a vein in your neck or groin to block the abnormal, varicose veins veins without the need for surgery. This is done in the hospital X-ray department
- **Open repair** – tying off the swollen veins through a surgical incision (cut) in your groin

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.

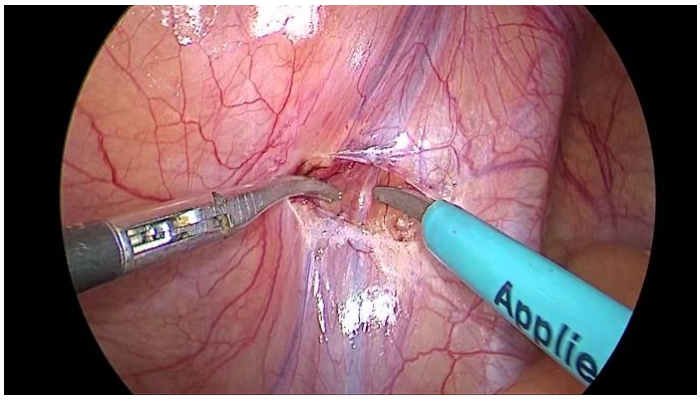
An anaesthetist will see you to discuss the options of a general anaesthetic or spinal anaesthetic. The anaesthetist will also discuss pain relief after the procedure with you.

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

- a full general anaesthetic is normally used and you will be asleep throughout the procedure.
- you may be given an injection of antibiotics before the procedure, after you have been checked for any allergies
- we inflate your abdominal cavity with carbon dioxide gas through a special needle
- the operation is performed through several “keyhole” access ports

- using a telescope put in just below your umbilicus (belly button), we identify the large veins draining blood from your testicle along the back wall of your abdominal cavity (pictured)



- we tie or clip the veins
- we close the keyhole incisions with absorbable sutures which normally disappear within two to three weeks
- we inject local anaesthetic around all the port sites to relieve any early discomfort you may have
- you will be given fluids to drink immediately after the operation and we will encourage you to move as soon as you are comfortable (to help prevent blood clots forming in your legs)

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
Temporary shoulder tip pain due to irritation of your diaphragm by the carbon dioxide gas	 Between 1 in 2 & 1 in 10 patients
Temporary abdominal bloating (gaseous distension)	 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
Bleeding, infection, pain or hernia in one (or more) of the port sites, requiring further treatment	 Between 1 in 10 & 1 in 50 patients

Failure to cure the varicocele		Between 1 in 10 & 1 in 50 patients
Development of a hydrocele (fluid swelling around the testicle) at a later stage		Between 1 in 10 & 1 in 50 patients
Pain or discomfort a few days after the procedure (due to phlebitis in the blocked veins) which may last a few weeks		About 1 in 10 patients
Bleeding needing conversion to open surgery or requiring blood transfusion		Between 1 in 50 & 1 in 250 patients
Damage to or shrinkage of the testicle if the blood supply is reduced by the operation		Between 1 in 50 & 1 in 250 patients
Recognised (or unrecognised) injury to nearby local structures (blood vessels, spleen, liver, kidney, lung, pancreas, bowel) requiring more extensive surgery		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)		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 approximately 8 in 100 (8%); 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
- you may be given a scrotal support which you should wear for the first few days to help reduce any swelling
- it is advisable to take some simple painkillers such as paracetamol to help keep discomfort at bay for the first few days
- if your bruising, swelling or pain is getting progressively worse, day-by-day, you should contact your surgical team for advice
- 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 few days
- you may return to work when you are comfortable enough and when your GP is satisfied with your progress
- if you develop a temperature, increased redness, throbbing or drainage from any of the keyhole sites, you should contact your GP immediately
- we will provide you with information about your follow up appointment

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

Not immediately. The swollen veins above your left testicle may actually become more prominent and uncomfortable at first, because they thrombose (clot off) 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 (warfarin, aspirin, clopidogrel, rivaroxaban or 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 **0800 169 0 169**.

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.