

Having a varicocele (testicle vein) embolization

This leaflet will explain what a varicocele embolization is and why you have been sent for one. Please read this leaflet carefully. If you have any questions or concerns not answered by this leaflet, please speak to a doctor or nurse caring for you.

What is a varicocele?

Varicocele is the medical name for an abnormal network of veins in the scrotum around the testicle. Varicoceles can be on the left or right side, or sometimes on both sides.

Varicoceles are relatively common (affecting around 15 of every 100 men). Normally, blood flows to the testicles through the testicular artery and out via the testicular veins. The direction of blood flow in the testicular vein should always be back towards the heart. A series of one-way valves in the testicular vein prevent the reverse flow of blood back to the testicles.

Sometimes these valves are not present or fail for unclear reasons. This causes blood to pool in the veins around the testicle, forming a varicocele. Varicoceles are most easily noted when standing, as gravity lets the abnormal veins fill up.

Often, varicoceles cause no symptoms and are harmless. Occasionally, varicoceles can cause an aching or discomfort in the scrotum. There is debate about whether varicoceles are associated with male infertility.

What is a varicocele embolization?

Embolization is a specialised, non-surgical method to treat varicoceles, which are causing discomfort or infertility. It is permanent and uses either special metal coils or foam to block the abnormal testicular vein(s). The normal veins are preserved.

Embolization is performed in a special operating theatre in the Interventional Radiology (IR) Department. It is a day case procedure, so you only need to spend a few hours in hospital. Overnight stay is very uncommon unless you live very far away. If you have two varicoceles or infertility, both sides will be treated at the same time. Otherwise, just the affected side is treated.

Varicocele embolization is performed via a small cut in either the neck or the groin. A special wire and tube is then steered inside the testicular veins using x-rays to guide the interventional radiologist. This allows targeted treatment of the abnormal vein from within the vein itself.

Who are IR?

Interventional radiologists are specialised doctors who perform procedures all over the body. They use different imaging machines, such as x-ray/fluoroscopic guidance to show them exactly where to go inside the body. This avoids the need for large surgical incisions. It is also very safe, as important structures can be clearly seen in real time.

IR doctors work in a team along with specialist nurses and radiographers. The whole team will look after you during your varicocele embolization and recovery.

What are the benefits of varicocele embolization?

- Varicocele embolization is the least invasive treatment option compared with surgery and does not need an incision into the scrotum. There is a lower rate of complications compared to surgery.
- Embolization is as effective as surgery when measured by improvement in pain and semen analysis.
- A patient with varicoceles on both sides can have both treated at the same time through one vein puncture site (surgery needs two separate open incisions).
- General anaesthesia is not used for embolization, whereas most surgery is done under general anaesthetic with the associated risks and side effects.
- Embolization is usually an outpatient day case procedure, so you do not have to stay in hospital overnight. Also the recovery time is usually shorter than surgery.

What are the risks of varicocele embolization?

Embolization is a very controlled and safe procedure, however, there are some side effects which you should be aware of

- Minor bruising in the groin or neck area depending on where the catheter was inserted. This usually resolves by itself within a few days.
- Dull aching in the groin or lower back. This usually lasts for a couple of days and is usually well controlled with simple painkillers (like paracetamol, follow the dosage instructions on the packet).
- Damage to the testicle on the treated side if too many veins are blocked. The interventional radiologist will be careful to avoid this. They may press, or ask you to press, on your groin during the procedure to stop the passage of coils or foam into the scrotum.
- Occasionally, the coils or foam may spill into a different vein, which may then become blocked. The interventional radiologist will usually recognise this immediately and remove the coil from inside the non-treatment vein. Very occasionally this may not be possible and further treatments may be needed.

Are there any alternatives?

This is an elective procedure. You can choose whether you or not you have your varicocele treated. Surgery is also a recognised treatment for varicoceles. Your doctor has recommended varicocele embolization as the best option for you, but if you would like more information on surgery, please speak to your doctor.

Before your procedure

We will arrange for you to have some blood tests. The doctor needs to see a list of all of your medications (tablets, inhalers, creams), so please bring a copy of your current prescriptions with you.

Sometimes, certain medicines need to be stopped before your procedure. The IR doctor or nurse will be able to advise you whether you need to do this. These medicines can be restarted after your embolization, but the IR doctor or nurse will advise you on this.

What happens on the day of the procedure?

- Do not eat or drink anything (except water) for six hours before the procedure. You can drink water up to two hours before the procedure. Eating and drinking before your procedure will cause delays to your procedure.
- Please arrive 45 minutes before your appointment time to allow sufficient time for preparation. You will need to get changed into a hospital gown and the IR doctor will go through your medications again with you.
- You will be asked to sign a hospital consent form, agreeing to have the procedure. You can ask any questions that you have.
- A family member or friend (maximum of two) should accompany you to the hospital. You should also be escorted home and have a responsible adult with you for 24 hours afterwards.
- If you come to hospital with family or friends, they can wait with you before and after the procedure. They cannot be with you for the biopsy procedure, but you will be with the IR nurses and doctors at all times.

Consent – asking for your consent

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves. The risks, benefits and alternatives will be clearly explained. You will be given the opportunity to ask any questions that you have.

If you would like more information about our consent process, please speak to a member of staff caring for you.

What happens during the procedure?

- You will be taken into the procedure room by the nurse. At least two nurses, a radiographer and an interventional radiologist will be with you at all times.
- The embolisation procedure is usually performed under local anaesthetic only (ie you are awake). However, you may feel minimal pain or discomfort at the access site or in your lower back or groin, and stronger pain killers can be provided, if required.
- You will lie on your back for the procedure. The nurses will check your blood pressure and pulse throughout the procedure and make sure that you are comfortable.
- Your groin or side of the neck will be cleaned with an antiseptic solution and covered with sterile drapes.
- Local anaesthetic will be injected to numb the area around the access site. When the skin is numb, a catheter (thin tube) is positioned into the testicular vein using x-ray guidance. Small, metal coils or a special medical foam is then used to block off the abnormal testicular vein.
- Once the procedure is complete, the radiologist removes the catheter and will press gently on the entry site for few minutes. This is to prevent bleeding.
- You will get a small dressing over the puncture site afterwards. No stitches are required.
- The procedure is very quick, but the whole procedure will take around 40 to 60 minutes. Treating both sides will take longer.

What happens after your procedure?

- You will need to rest in the IR Department for around two hours after your procedure to make sure that there are no problems. The nurse will let you know when you can eat, drink and mobilise after your procedure.
- If all your checks are normal, then you can go home.

- You will need a responsible adult to take you home by car or taxi. We do not recommend using public transport, in case you feel unwell. If you need to arrange hospital transport, please call **t:** 020 7188 2888.
- You should have an adult stay with you overnight.
- Do not drive for 24 hours after the procedure and not until you feel safe to do so.
- Avoid any strenuous exercise or heavy lifting for 48 hours after the procedure.
- Simple painkillers (like paracetamol) might be useful for any post-embolization discomfort.

Contact us

If you feel you need urgent medical attention or are worried about anything please contact the IR Department, **t:** 020 7188 5576, Monday to Friday, 9am to 5pm, or your GP, NHS 111, or go to your nearest Emergency Department (A&E).

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline. **t:** 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk
t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch. **t:** 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day. **t:** 111

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health. **w:** www.nhs.uk

Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, please get in touch.

t: 0800 731 0319 **e:** members@gstt.nhs.uk **w:** www.guysandstthomas.nhs.uk/membership

Leaflet number: 1718/VER4

Date published: December 2017

Review date: December 2020

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 A list of sources is available on request