

Varicocele embolisation

Radiology

What is the aim of this leaflet?

The aim of this leaflet is to explain the procedure for patients undergoing a varicocele embolisation. This leaflet is not meant to replace informed discussion between you and your doctor, but can act as a starting point for outlining risks and benefits.

What is a varicocele embolisation?

A varicocele is the swelling in the scrotum caused by a collection of abnormally large veins that take blood away from the testicle. Usually veins have a one-way valve that allows blood to flow from an organ to the heart and not the reverse. Sometimes these valves fail and this results in a collection of blood around the testicle in the scrotum due to gravity. The veins become bigger and more obvious, rather like varicose veins in the leg. Embolisation is a way of blocking these veins making them less obvious and causing the varicocele to disappear without an operation. This will help relieve any symptoms such as pain or discomfort you have been experiencing.

Why do I need a varicocele embolisation?

A varicocele can cause a dull ache or infertility. Embolisation often relieves the discomfort and increases fertility.

Who has made the decision?

The choice about which treatment is best for you will be made together with your doctor. This will be based on the risks and benefits of the treatment and your individual circumstances.

Who will do the procedure?

An interventional radiologist will perform the procedure. They have special expertise in interpreting the images and using imaging to guide catheters and wires to aid diagnosis and treatment.

Consent

We must seek your consent for any procedure or treatment beforehand. A written consent will be obtained from yourself by a doctor to give permission to have the procedure done.

Your doctor will explain the risks, benefits and alternatives where relevant before you sign the consent. A referral will be made and your appointment will be arranged. If you are unsure about any aspect of the procedure or treatment proposed please do not hesitate to ask for more information.

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

Although results vary from centre to centre, the overall success rate is approximately 90 to 95% with a rate of over 90% in dealing with pain attributed to a varicocele.

What are the potential risks of having a varicocele embolisation?

- Serious complications are uncommon, but a number have been described
- Bruising around the puncture site
- If embolisation requires the use of an embolisation coil, this may move from the vein to the scrotum and into the artery in the lung. If this occurs it will cause a clot in the lung which will require urgent blood thinning to prevent the life threatening complication of pulmonary embolus. It may be possible to remove the coil if this occurs
- There is a risk of recurrence of the varicocele after the procedure. If this does occur, it occurs several months to years after the initial treatment. About 10% of patients may experience recurrence. Varicocele embolisation has been performed for over 20 years and has an excellent long-term safety record. Please discuss with the radiologist if you have any concerns
- There is a risk of damage to the walls of the veins which can lead to back discomfort, lasting 2 to 3 days
- Infection is rare and will be discussed during consent. If this occurs, antibiotics will be given by your consultant or GP
- There is always a risk of excessive bleeding although this is very rare. If this happens, a different procedure may be necessary or even surgery
- Death as a result of the procedure is very rare
- **Radiation:** This procedure involves exposure to radiation
- For most patients' the risk of causing cancer from this exposure is less than 1 in 1000. It may be more than this if your procedure is complex or depending on factors such as body type, height and weight. The requesting doctor and the doctor that will be performing your examination feel that the benefit of having the test or treatment outweighs the risk from the exposure to radiation. If you have further questions about the risk of exposure to radiation, please talk to your doctor during consent
- **Contrast agent:** The "dye" that is used to show up the blood vessels can have side effects for a minority of patients:
 - 3 in 100 patients experience nausea and hot flushes
 - 4 in 10,000 may have more serious effects including breathing difficulties
- If a side effect does occur the doctors, nurses and radiographers are trained to deal with it.

What are the benefits of having a varicocele embolisation?

- It is a minimally invasive procedure that does not need a surgical incision in the scrotal area
- It can be carried out as a day procedure, so you do not have to stay in hospital overnight and the recovery time is shorter
- A patient with varicoceles on both sides can have both fixed at the same time through one vein puncture site (surgery needs two separate open incisions).

Are there any alternative treatments and what if I decide not to have it done?

The consultant in charge of your care will discuss the alternatives with you such as open groin surgery or laparoscopic surgery. They will also discuss the consequences of no treatment.

Are you required to make any special preparations?

This procedure is usually carried out as a day case procedure under local anaesthetic (a medication used to numb an area of the body to reduce pain).

- You can eat and drink as normal unless a doctor or nurse has specifically said otherwise
- If you have any allergies or have previously had a reaction to the dye (contrast agent), you must tell the radiology staff before you have the procedure.

If you are taking the following medication and the doctor has not discussed them during consent, please contact the x-ray department when you receive this information:

Acenocoumarol, Apixaban, Aspirin, Bivalirudin, Dabigatran, Dalteparin, Danaparoid, Dipyridamole, Edoxaban, Enoxaparin (Clexane), Fondaparinux, Heparin, Phenindione, Tinzaparin, Warfarin.

Where will the procedure take place?

The procedure will take place in the interventional radiology suite. This is similar to an operating theatre in which specialised x-ray equipment has been installed.

What actually happens during a varicocele embolisation?

You will be asked to get undressed and put on a hospital gown. You will lie flat on your back for this procedure. Observations of your heart rate and blood pressure will be taken during and after the procedure. A team of nurses and radiographers will assist the radiologist during the procedure. An interventional radiologist uses an ultrasound probe and X-rays to allow accurate positioning of the needle and wire. Local anaesthetic is injected at the procedure access site (this may be either groin or neck depending on where the radiologist will gain access). This may sting for a few seconds but will then go numb. The radiologist then places thin tubes (catheters) and wires into the vein. You may be able to feel this but there should be no pain. The radiologist will then inject coils or sclerosant foam to stop the blood flow to the veins.

The radiologist will inject small amounts of contrast down the tube to check that the abnormal veins have been blocked satisfactorily. Once they are blocked completely the catheter will be removed.

Will it hurt?

When the local anaesthetic is injected it will sting a little, this will soon wear off. After this, the procedure should not be painful. There will be a nurse next to the X-ray table to look after you. As the dye passes around your body you may get a warm feeling which some people can find a little unpleasant. However, this soon passes off. Pain relief may be given at the time of the procedure if appropriate. You should discuss this with the doctor doing your procedure on the day.

How long will it take?

Every patient is different, and it is not always easy to predict; however, expect to be in the radiology department for about 90 minutes.

What happens afterwards?

- You will return to the observation beds in the day-case unit
- The nurse on the unit will take your pulse and blood pressure to make sure that there are no problems. They will also look at the skin entry point to make sure there is no bleeding from it
- You will need bed rest for a few hours, you will then be able to sit up and walk around if there are no complications
- You will stay on the day-case unit for up to six hours to be observed
- Please arrange for somebody to collect you. We will telephone them and let them know when you are ready to go home.

Going home advice

- Do not undertake strenuous activities for the next 48 hours
- You will need somebody to stay with you during the night after your procedure in case there are any complications
- You will need to regularly check the procedure site for oozing or swelling
- The dressing can be removed 48 hours after the procedure
- It is your responsibility to make sure you are safe to drive. Care must be taken when driving especially if bruising over the groin is preventing you from braking. It is advised you do not drive until healed. Further information can be found on the DVLA website: <https://www.gov.uk/guidance/general-information-assessing-fitness-to-drive>
- Any concerns should be reported to the Interventional radiology department (in working hours), your GP, or your local accident and emergency department
- It is unlikely that the puncture site will bleed, but if this happens, you should follow the following instructions:
 - Stop what you are doing and lie down
 - Press firmly on the site with your fingers
 - Call NHS helpline on 111 or 999, explain you have had a venous intervention and the site is bleeding.

Trainees

A radiology trainee (qualified experienced doctors training in radiology) or occasionally a student may be present during the examination. If you would prefer them not to attend, please let a member of Radiology staff know.

How to contact us

If you have any personal access needs, require wheelchair access or wish to speak to a member of staff for further information please contact the interventional radiology department on 01902 307999 ext. 6344 between 08:30 and 16:30 as the department cannot help with queries outside of these hours.

Angiography Suite / Interventional Radiology

Second floor Radiology A2
New Cross Hospital
Wolverhampton
West Midlands
WV10 0QP

Patient Advice and Liaison Service

New Cross Hospital
01902 695362
Email: rwh-tr.pals@nhs.net

Further information

Further information about your examination is available from:

https://www.bsir.org/patients/varicoceles/#col_right

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。