

# Varicocele embolisation

We have given you this factsheet because your doctor has referred you for a procedure called varicocele embolisation. It explains what varicocele embolisation is, what the procedure involves and what the possible risks are. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please contact us using the details at the end of this factsheet.

#### What is a varicocele?

A varicocele is an abnormality of the veins that take blood away from the testicles. The blood does not flow properly in these veins, which causes the veins to become bigger and more obvious, like varicose veins in the leg. This condition can occur on either testicle but is more common on the left.

### What is varicocele embolisation?

Varicocele embolisation is a non-surgical procedure to treat pain and/or swelling in the testicles (varicocele). This procedure involves using small coils (similar to a spring) and a special liquid called 'sclerosant foam' to block off the enlarged veins in the testicle, causing the veins to shrink. After about six weeks, new healthy veins will then develop.

Varicocele embolisation is a day case procedure. This means that you will come into hospital for your procedure and then go home on the same day.

#### Why do I need this procedure?

Your doctor has recommended that you have varicocele embolisation because your recent test results show that a varicocele is the cause of your symptoms.

Your symptoms may include:

- pain or swelling (the pain is typically described as a dull ache but can be more painful after standing for a long period of time or exercise)
- issues with fertility (for example, issues with sperm count)

## What are the benefits?

There have been lots of studies on varicocele embolisation. These studies have shown that it is a very successful procedure in over 90% of people.

### Are there any alternatives?

Varicoceles can be treated in a number of ways, including:

- varicocele embolisation
- open groin surgery
- laparoscopic surgery

After a discussion with an interventional radiologist (a specialist doctor who performs embolisation procedures), your doctor believes varicocele embolisation is the best treatment option for you.

However, if you decide that you do not want varicocele embolisation, your doctor will be happy to discuss the alternative treatment options with you and explain the benefits and risks of each, so that you can make an informed decision.

## How do I prepare for the procedure?

## **Eating and drinking**

You must not eat or drink anything for 6 hours before your admission, except for water, which you may drink until 2 hours before.

#### Medication

You may continue taking your usual medication on the morning of the procedure unless you are taking any blood-thinning medications.

If you are taking any blood-thinning medications or any other medications that you believe may thin your blood, contact us as soon as you receive your appointment letter using the details at the end of this factsheet. Blood-thinning medications can increase the risk of bleeding during the procedure. Because of this, it is essential that we discuss this with you in advance or we may need to cancel your procedure on the day.

#### **Allergies**

If you have any allergies or have previously reacted to intravenous contrast medium (a special dye used for kidney x-rays and CT scanning), contact us as soon as you receive your appointment letter.

#### Consent

You will have a clinic appointment with an interventional radiologist before your procedure. At this appointment, the interventional radiologist will explain what will happen during your procedure and will answer any questions you may have. If you are happy to go ahead with the procedure, we will ask you to sign a consent form giving your permission.

## What will happen during the procedure?

The procedure will be performed by an interventional radiologist in the radiology x-ray department.

We will ask you to lie flat on your back on the x-ray table before attaching a monitoring device to your chest and finger.

If needed, we will give you a sedative injection via a cannula (a small plastic tube placed into a vein in your hand or arm) at the beginning of the procedure to help relax you. If we do give you a sedative injection, we will wait for this to take effect before we start the procedure.

If you need extra oxygen during the procedure, we will give this to you by placing small tubes in your nose.

We will clean an area on your neck with antiseptic. We will then cover the rest of your body with a theatre drape. We will inject some local anaesthetic (medicine that numbs a specific area of the body) into the skin on your neck. This may sting briefly before going numb. Once the area is numb, we will insert a small needle into a vein in your neck.

Once we are satisfied that the needle is in the correct position, we will place a guide wire through the needle into your vein. We will then withdraw the needle, allowing us to place a fine, plastic tube (catheter) over the wire and into your vein.

We will then use x-ray equipment to move the catheter and wire into the abnormal veins in your testicle. We will inject a special x-ray dye, called 'contrast medium', into the catheter and into these veins. You may feel a hot, unpleasant sensation in your pelvis as this is done, but this will quickly pass.

Once we have identified the correct veins and correctly placed the equipment, we will place tiny coils and/or sclerosant foam into the veins to block them completely.

At the end of the procedure, we will remove the catheter and apply pressure to your neck for several minutes to prevent any bleeding. This will also help to close the hole that has been made.

#### Will it hurt?

The procedure can be painful. We can give you pain relief medication via the cannula in your arm, if needed.

## How long will it take?

Varicocele embolisations usually take around 30 minutes. However, if the procedure is a little more complicated than expected, it can take up to an hour. As a guide, expect to be in the x-ray department for about two hours in total.

### What will happen after the procedure?

We will take you to the radiology day case unit to recover. A nurse will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no problems. They will also assess your pain levels and check the skin on your neck for any bleeding.

You will need to stay in bed for at least two hours (or until you have recovered).

You will be able to go home once you:

- have had something to eat,
- have passed urine (had a wee), and
- are able to move around safely.

If you have had sedation, you **must** have a responsible adult to take you home and stay with you overnight.

For 24 hours after being sedated you must not:

- drive
- drink alcohol
- operate machinery
- · sign important documents

## Are there any risks or complications?

Varicocele embolisation is a safe procedure, but as with any medical procedure, there are some potential risks and complications.

## **Exposure to radiation**

For your procedure, we need to use x-rays (a type of radiation used to see inside your body). Exposure to radiation can slightly increase a person's lifetime cancer risk, but for this procedure, the risk is very low. Your doctor has recommended that the benefit to you from the procedure outweighs the low risk from the radiation. You will not be exposed to any more x-ray radiation than is absolutely necessary.

#### Haematoma

It is normal to experience a small bruise (haematoma) around the site where the needle has been inserted. If this becomes a large bruise, contact your specialist nurse as there is a risk of infection and you may need treatment.

## **Recurrence of symptoms**

There is a very small possibility that your symptoms may not improve after having the procedure. Some people may also find that their symptoms reappear at a later date as new veins become faulty (recurrence of varicocele). If this is the case, we may need to repeat the procedure or perform an operation.

## Damage to other organs

Our interventional radiologists have a lot of experience and training in blocking off blood vessels. They are very careful when placing the materials (coils and sclerosant foam) used to block blood vessels. Although extremely rare, there is a potential risk that these materials can go elsewhere in your body, rather than the correct blood vessels, and cause damage to your other organs.

#### Recovering at home

After you return home, you will need to rest for three to four days.

You may feel some pain in your testicles and/or mild discomfort in your lower back for a few days after the procedure. This is normal and can be managed by taking over-the-counter pain relief medication, such as paracetamol. Always read the label or instructions before taking any medication.

You must not take part in any contact sports or heavy lifting for seven to ten days after your procedure.

#### Follow-up care

We will arrange an ultrasound scan (a procedure that uses high-frequency sound waves to create an image of part of the inside of the body) and a follow-up clinic appointment with the interventional radiologist two months after your procedure.

#### **Contact us**

If you have any further questions or concerns, please contact us.

Interventional radiology clinical nurse specialist team Telephone: **023 8120 1329** (Monday to Friday, 8am to 5.30pm)

If you have any medical concerns outside of these hours, contact your general practitioner (GP) or call NHS **111**.

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