Angiogram ± Angioplasty ± Stent Insertion
Interventional Radiology

This leaflet explains the procedure testicular vein embolisation or varicocele embolisation. It will describe the reasons for the procedure, what to expect and the risk and complications.

Please note that this leaflet is not meant to replace discussion between you and your doctor. You should raise any questions you may have with the doctor who has referred you for, or with the doctor performing the procedure.

What is an angiogram, angioplasty and stent insertion?

An angiogram is an imaging procedure used to examine blood vessels using X-ray guidance and contrast dye. It helps identify narrowing (stenosis), blockage, or other abnormalities in the arteries.

If a narrowing or blockage is found, treatment may be performed at the same time.

Angioplasty involves inflating a small balloon inside the artery to widen the narrowed area. Stent insertion involves placing a small metal mesh tube (stent) to help keep the artery open and maintain blood flow.

These procedures improve circulation and can help relieve symptoms such as pain, poor wound healing, or reduced organ or limb function.

The procedure is minimally invasive and performed through a small puncture in the skin, usually in the groin or wrist.

Why do I need this procedure?

You may need an angiogram ± angioplasty ± stent insertion to:

- Investigate narrowed or blocked arteries
- Improve blood flow to the legs, arms, kidneys, or other organs
- Treat symptoms such as leg pain when walking (claudication)
- Help heal ulcers or wounds caused by poor circulation
- Treat narrowing of arteries supplying organs (for example kidney arteries)
- Assess blood vessels before or after surgery

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How do I prepare for this procedure?

You will have a **pre-assessment telephone consultation** with a nurse before your admission and may be asked to have blood tests before the procedure.

You should **stop eating 6 hours prior the procedure**, however you can drink 1 cup of clear water per hour until the procedure starts.

As it's a day case procedure, you need to arrange for an adult to collect you from the department and someone to stay with you overnight.

The procedure will take place in the Interventional Radiology (IR), within the Radiology Department at St. Peter's Hospital. When you arrive, you will be given a hospital gown to change into, and a staff will insert an IV cannula.

The doctor will discuss the procedure with you; answer any questions you may have and ask you to sign the consent form if you are happy to proceed.

The procedure will likely be performed under local anaesthetic. Intravenous pain relief and light sedation may also be given, to ensure you are as comfortable as possible.

If you are feeling unwell closer to the day of the procedure, please let the team know.

How is the procedure performed?

This procedure is most often undergone as an awake, day case procedure. You will lie on an X-ray table in the Interventional Radiology suite.

The skin, usually groin, is cleaned and numbed with local anaesthetic. A small plastic tube (sheath) is inserted into the artery using ultrasound guidance.

Contrast dye is injected to show the arteries on X-ray. Sometimes this contrast can cause a hot feeling or the sensation that you have passed urine.

If a narrowing is found:

- A small balloon may be inflated (**angioplasty**)
- A stent may be placed to keep the artery open

The procedure usually takes **30 minutes to 2 hours**, depending on complexity.

At the end, the tube is removed and pressure or a closure device is used to seal the artery.

What are the potential risks and complications?

This is a commonly performed and generally safe procedure. However, as with all procedures, there are some risks:

Pain or discomfort

- Mild discomfort at the puncture site is common and occurs in up to **20-30% of patients**. This usually settles within a few days.

Bruising or haematoma

- Bruising at the puncture site occurs in approximately **5-10% of patients** and usually resolves without treatment.

Bleeding

- Significant bleeding is uncommon (**1-2%**) but may require additional treatment. Severe bleeding is rare (**<0.5%**).

Artery damage or blockage

- Damage to the artery, clot formation, or reduced blood flow occurs in approximately **1-3% of cases**. This can usually be treated during the procedure.

Contrast-related problems

- Contrast dye may affect kidney function, particularly in patients with existing kidney disease (**1-5%** risk of temporary worsening). Severe kidney injury is rare (**<1%**).
- Allergic reactions to contrast are uncommon (**<1%**) and severe reactions are very rare (**<0.1%**).

Infection

- Infection at the puncture site is uncommon (**<1%**).

Failure to successfully treat the narrowing

- In some cases (**5-10%**), angioplasty or stent placement may not be possible or fully successful.

Re-narrowing of the artery (restenosis)

- The artery may narrow again over time in approximately **10-30% of patients**, depending on the artery treated and underlying condition. Further treatment may sometimes be required.

Radiation exposure

- The procedure uses X-ray guidance. Radiation exposure is kept as low as reasonably possible.

Limb loss (amputation)

In very rare cases, the blood supply to the limb may worsen due to:

- Acute blockage of the treated artery (thrombosis)
- Dislodgement of plaque causing distal embolisation
- Failure to successfully reopen the artery
- Progression of severe underlying peripheral arterial disease

If blood flow cannot be restored, amputation of part of the limb may be necessary to prevent life-threatening infection or tissue death.

This occurs in approximately:

- Less than 1% of routine angioplasty cases
- Up to 1-5% in patients treated for critical limb-threatening ischaemia, depending on disease severity

Your interventional radiologist will discuss your individual risk based on your condition.

Serious complications

- Serious complications such as heart attack, stroke, emergency surgery, or death are very rare (**<0.5%** and typically much lower depending on the artery treated).

What happens afterwards?

You will be monitored in the recovery area.

You will usually need to remain in bed for up to **6 hours**.

Your blood pressure, pulse and puncture site will be checked regularly.

Most patients go home the same day, although some may require an overnight stay.

You should:

- Keep the puncture site clean and dry for 48h
- Rest for 24-48 hours
- Avoid heavy lifting or strenuous activity for **5-7 days**
- You must not drive for at least 24 hours and until your pain has resolved

You can usually return to normal activities within a few days.

Seek urgent medical attention if you develop:

- Increasing pain, swelling, or bleeding at the puncture site
- Coldness, numbness, or severe pain in the limb
- Chest pain or shortness of breath
- Fever or signs of infection

Follow-up

Your referring consultant will arrange follow-up clinic and ultrasound scan, normally 6-8 weeks after the procedure.

Further Information

We endeavour to provide an excellent service at all times, but should you have any concerns please, in the first instance, raise these with the Matron, Senior Nurse or Manager on duty. If they cannot resolve your concern, please contact our Patient Experience Team on 01932 723553 or email asp-tr.patient.advice@nhs.net. If you remain concerned, the team can also advise upon how to make a formal complaint.

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यदि आपको अनुवाद की ज़रूरत है तो कृपया इस नंबर पर फोन करें: 01932 723553

Jeżeli chcemy, aby te informacje w innym języku, proszę zadzwonić 01932 723553

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