

Vascular Radiology Service

Upper Limb Angiogram, Angioplasty and Stent

Information for
patients



Leeds
Radiology

This leaflet explains what an upper limb angiogram and angioplasty involve, why the procedure is recommended, and the possible risks and benefits. It is intended to support discussions between you and your healthcare team.

What is an Upper Limb Angiogram, Angioplasty and Stent?

An upper limb angiogram is a test used to look at the arteries in your chest, arms and hands. A special dye (contrast agent) is injected into the bloodstream and X-rays are used to identify narrowed or blocked arteries.

This procedure may be performed to investigate or treat:

- Reduced blood flow (ischaemia)
- Trauma or injury to blood vessels
- Haemodialysis access problems
- Vasculitis (inflammation of blood vessels)
- Vascular abnormalities

Angioplasty is when a small balloon is passed into the artery and inflated briefly to improve blood flow.

A stent is a small metal mesh tube that may be inserted into the artery to help keep it open.

Your doctor has identified a narrowing or blockage in one or more blood vessels supplying your arm or hand. This can reduce blood flow and may cause:

- Pain in the arm or hand
- Coldness, numbness, or weakness
- Poor healing or ulcers
- Problems with dialysis access

You may already have had other tests such as:

- Doppler ultrasound scan
- CT angiogram (CTA)
- MR angiogram (MRA)

Unlike these tests, angiography can be combined with treatment during the same procedure.

How do I prepare?

You can eat and drink before the procedure unless told otherwise.

Please tell the team if you:

- Have any allergies or previously reacted to contrast dye
- Are diabetic
- Take blood thinning medication such as warfarin, apixaban, rivaroxaban, or edoxaban
- Take metformin or insulin

You can continue to take aspirin and clopidogrel unless advised otherwise.

You may need blood tests before the procedure to check kidney function and blood clotting.

How is it performed?

Consent

The operating interventional radiologist will explain this to you in more detail during the day of your procedure, where you will be asked to provide your permission to proceed by signing a consent form.

Anaesthetic

The procedure is usually performed in the radiology department under local anaesthetic.

You may feel:

- A brief stinging sensation when the local anaesthetic is injected
- Warmth when the contrast dye is injected
- A stretching or pressure sensation during balloon inflation

Most patients tolerate the procedure well.

Procedure

A specially trained doctor called an Interventional Radiologist will perform the procedure.

- You will lie flat on an X-ray table.
- Monitoring equipment may be attached to measure your pulse, oxygen levels, and blood pressure.
- The skin in the groin area is cleaned with antiseptic and covered with sterile drapes.

- Local anaesthetic is injected into the skin.
- A small tube (catheter) is inserted into the artery.
- Contrast dye is injected so the arteries can be seen on X-ray images.
- If a narrowing or blockage is found, a balloon may be inflated to widen the artery.
- A stent may also be inserted if needed.

At the end of the procedure the catheter is removed and pressure or a closure device is used to stop bleeding.

The procedure usually takes between 30 minutes and 2 hours.

Staff involved

Interventional Radiology (IR) procedures are performed by a multidisciplinary team. The team includes the following key Staff:

- **Interventional Radiologist (Consultant/Fellow):** A doctor specially trained in minimally invasive, image-guided techniques who performs the procedure.
- **Radiology Nurses:** Highly trained nurses who care for the patient before, during, and after the procedure. They assist with sedation, monitor vital signs (heart rate, breathing, oxygen levels), and may “scrub in” to assist the radiologist directly.
- **Radiographers:** Experts in imaging equipment who operate the machines to provide real-time guidance for the doctor.
- **Senior Clinical Support Workers (SCSWs):** Assist with the setup of the room, patient positioning, and maintenance of sterile conditions.

What are the risks?

Angiography and angioplasty are generally very safe procedures, but complications can occur.

Common:

- Small bruise at the puncture site

Uncommon or rare:

- Large bruise or bleeding requiring further treatment
- Damage to the artery or blockage caused by displaced material (embolus)
- False aneurysm (a tender pulsating swelling at the puncture site)
- Kidney injury caused by contrast dye
- Allergic reaction to the contrast dye
- Failure to improve symptoms
- Need for further procedures or surgery

Extremely rare:

- Worsening blood flow which may threaten the arm or hand

What else to expect from this procedure?

Admission

This procedure is usually done as a day case. You will be admitted in Radiology Theatres as day case, we will clerk you in, gather some data and you will be asked to undress and put on suitable hospital gown. If you needed a bed due to social or any other reasons, the hospital bed manager will arrange one for you, but you may need to wait until a bed is available.

If you are already an inpatient, you will just go back to your ward after the procedure.

Recovery

After the procedure you will return to the recovery area or ward.

Nursing staff will monitor:

- Blood pressure, pulse and oxygen levels
- The puncture site for bleeding

You may need to remain resting for a few hours

Most patients go home the same day

Aftercare

For the first 48 hours:

- Avoid strenuous activity and heavy lifting
- Keep the puncture site clean and dry
- Drink plenty of fluids unless advised otherwise

Care at home

Driving: You may drive again after 48 hours if you can perform an emergency stop comfortably.

Work: Most people return to work within about one week, depending on the type of work they do.

Exercise: Avoid heavy lifting and strenuous activities initially, then you can return to normal activities and exercise is encouraged.

Medicines: Continue your medications as advised by your doctor. You will be told when to restart blood thinning medication.

Follow up: The vascular or renal Team will contact you to arrange a follow-up appointment if required.

Seek **urgent medical advice** if you develop:

- Bleeding from the puncture site
- Increasing pain, swelling, or redness
- Fever or signs of infection
- Changes in the colour or temperature of the arm or leg
- Severe pain, numbness, or weakness in the arm or hand

Contact information

We hope some of your questions have been answered by this leaflet. If there are any questions you would like to ask before you come for your operation, please get in touch.

Via telephone:

Interventional Radiology SJUH: 0113 206 6841

(Monday - Friday from 9am until 5pm, except Bank Holidays)

Interventional Radiology LGL: 0113 392 3311

(Monday - Friday from 9am until 5pm, except Bank Holidays)

Your GP or NHS direct on **111**

Call 999 for life-threatening emergency

Or via email: leedsth-tr.radiologyenquiries@nhs.net

How to get to our department

We are located in the Lincoln Wing of St James's University Hospital, Ground Floor. Check this link or click or scan the QR code to see how to get to us

www.accessable.co.uk/leeds-teaching-hospitals-nhs-trust/st-james-s-university-hospital/access-guides/lincoln-wing

We are located in the Jubilee Wing of Leeds General Infirmary, Ground Floor. Check this link or click or scan the QR code to see how to get to us

www.accessable.co.uk/leeds-teaching-hospitals-nhs-trust/leeds-general-infirmary/access-guides/jubilee-wing



What did you think of your care?

Visit: www.leedsth.nhs.uk/patients/support/feedback-complaints/friends-family-test/

Scan or click the QR code - Your views matter

© The Leeds Teaching Hospitals NHS Trust • 1st Edition Version 1
Developed by: Christopher Miller, Consultant Interventional Radiologist
Produced by: Medical Illustration Services • MID code: 20260608_010/RC

LN006245
Publication date
08/2026
Review date
08/2029