

## Radiology Department

# Arm venogram or venous angioplasty (venoplasty)

You have been advised by your hospital consultant that you need to have an arm venogram, which may include venoplasty treatment. This information leaflet tells you about having these procedures. It explains what is involved and what the possible risks are.

This leaflet may not answer all your questions. If you have any concerns, please ask the radiology staff. If you feel unhappy with any part of your care within the X-ray Department please ask to speak to the superintendent radiographer.

Please read this leaflet carefully to ensure you are successfully prepared for the examination.

Contact the X-ray Department if your weight is equal to or more than 205Kg (32 stone).

## Points to Remember

- Please bring any sprays or inhalers that you take regularly with you to the X-ray Department.
- Leave any valuable possessions at home.
- If you are unable to attend please contact the X-ray Department using the number on your appointment letter
- Continue to take aspirin or any other medication from your doctor, **except warfarin** (see below).
- If you are going to undergo venoplasty and are taking warfarin or other blood thinning medicines, please contact your anti-coagulation nurse specialist as soon as you get this letter. You may need a blood test to determine if you should alter or stop your treatment a few days before



## Patient Information

your appointment. Your anti-coagulation nurse specialist will advise you.

- If you need venoplasty to be performed for the larger central veins in your chest, you will need to stay overnight in hospital after the procedure.
- Venoplasty of the smaller veins in your arm is usually managed as an outpatient procedure. It requires you to stay for 1 hour after the treatment. You should expect to be in the Radiology Department for 2 – 3 hours.

## What is an arm venogram?

A venogram is a specialised X-ray examination to show images of the veins in your arm.

## Why do I need an arm venogram?

The examination is usually performed if your doctor thinks there may be a narrowing or blockage in one of the deep veins in your arm or chest. This may cause swelling in your arm, neck or occasionally your head.

The examination will be performed by a radiologist who will be assisted by a radiographer and a radiology nurse. It is not always easy to predict how long the procedure will take. As a guide, expect to be in the Radiology Department for about 45 minutes.

## Are there alternative examinations to an arm venogram?

Ultrasound plays an important role in the evaluation and diagnosis of the veins. However, the deeper central veins in the chest are better visualised with venography.

## What is venous angioplasty (venoplasty)?

If it is appropriate and possible, the radiologist may proceed on to a venoplasty or may arrange this at a later date. This is a procedure in which a small balloon on the end of a catheter is manoeuvred into the narrowed section of the vein and inflated. This re-opens the narrowing or blocked vein.

## Patient Information

This procedure is more complex than a venogram and you will have to remain in the Radiology Department for a short while after.

### Why should I have venoplasty?

This technique means that surgery may be avoided in many cases.

### When would I need a venous stent inserted?

Sometimes, venoplasty by itself is not sufficient to keep a vein open. Therefore, insertion of a metal stent (a small mesh tube inserted across the narrowing) may also be required to keep the vein open.

## Referral and Consent

If you are having the venogram and/or venoplasty as a planned procedure, then you should have plenty of time to discuss the situation with your consultant or clinical nurse specialist and the radiologist (a specialised X-ray doctor) who will be performing the procedure.

If the procedure is being performed as an emergency **you should still have had sufficient explanation before you sign the consent form**. If after discussion with your hospital doctor or radiologist you do not want the procedure carried out, then you can decide against it.

If the radiologist feels that your condition has changed or that your symptoms do not indicate such a procedure is necessary then they will explain this to you, communicate with the referring clinician and ask that you return to your referring clinician or ward for review. At all times the radiologist and referring clinician will be acting in your best interests.

## Risks of the procedure

As with any procedure or operation, complications are possible. We have included the most common risks and complications in this leaflet. The probability of these complications occurring will vary for each patient and the possibility of these complications happening to you will be discussed with you before you sign the consent form.

- There can be bleeding around the puncture site after the examination. The radiology nurses will monitor you closely for a while after the procedure. Very rarely the bleeding can be so severe that serious

## Patient Information

complications can arise. The doctor will discuss these with you when you sign the consent form.

- Surgery may still be required if the venoplasty is not possible or only partially successful
- There is a risk that the procedure will rupture the vein in your arm. This may require surgical intervention.
- Rarely the contrast medium used for a venogram can cause deterioration in kidney function. Usually this is only temporary but occasionally it can be more long term.

This is of particular concern for people who already have impaired kidney function. You will have a blood test to assess your kidney function prior to the procedure.

- Rarely, allergic reactions can occur with the X-ray dye, which only very rarely require any treatment. You will be asked about allergies by the radiologist at the time.

Despite these possible complications, the procedure is normally very safe. At all times during and after the procedure the staff will be monitoring your responses to this treatment. This is to minimise the effects of any complications.

X-rays are a type of radiation. We are all exposed to natural background radiation every day of our lives. This can come from the sun, the food we eat, and the ground. Exposure to X-rays carries a small risk, but your doctor feels that this risk is outweighed by the benefits of having the test. We will take all safeguards to minimise the amount of X-rays you receive.

## Safety

The contrast agent contains iodine and is excreted by the kidneys in your urine. Please inform the radiologist or radiographer if you:

- are allergic to iodine, have any other allergies or suffer from asthma
- have reacted previously to the injection used for kidney X-rays or CT scanning
- have known kidney problems

**Could you be pregnant?** The risks of radiation are higher for your unborn child. Therefore you will be asked to confirm that you are not pregnant before the examination can proceed.

### Preparation for venogram or venoplasty

- You will have had some blood tests to check your blood clotting ability and kidney function.
- There is no need for you to stop eating before the procedure. However it is important that you **drink plenty. We advise one pint, or 500ml of water** or squash **above your normal fluid intake.**

### Important Information for patients on a fluid restricted allowance:

- If you are under the care of a renal specialist and/or have to follow a fluid restricted diet, you should include this preparation as part of your fluid allowance.
- If you have severe kidney problems and are not having dialysis treatment, you will be put on intravenous fluids (a drip) for 6 hours, starting the hour before the procedure. Please contact the department as you may need to be admitted to a ward for this procedure.

### Important Information for patients with renal impairment:

- Some painkillers (non-steroidal anti-inflammatory drugs such as ibuprofen or diclofenac) **may** have to be stopped on the day of the examination for 24 hours. Please discuss this with your doctor. You may use paracetamol as a substitute pain relief medication during this time.

### What will happen when I arrive?

- On arrival at the Radiology/X-Ray Department, please report to the reception desk. From here you will be collected and taken to the fluoroscopy waiting area.
- If necessary you will be asked to undress and put on a suitable gown. Please feel free to bring your own dressing gown.
- You may need a cannula inserted into a vein in your arm

### During your examination

The procedure will again be explained to you by the radiologist and you will be able to ask any further questions that you may have.

You will be taken into the X-ray room where you will be asked to lie on your back on the X-ray table.

### The venogram procedure

- A small needle or cannula is inserted either into one of the veins in the back of your hand or into a vein in your arm.
- Radiological contrast medium, a colourless liquid that shows up on X-ray images, is injected through the cannula and X-ray images are taken.
- A tight band (tourniquet) will be fastened around your arm to ensure that the contrast flows into the deep veins of your arm as these are the ones we need to image.

### The venoplasty procedure

Venoplasty is a more complex procedure than a venogram.

- The radiologist will need to change into a theatre gown and gloves as it is similar to the sterile procedures performed in theatre.
- The radiologist will cover your arm and chest in sterile drapes. They will inject local anaesthetic into the skin on your arm to numb the area and insert a different needle to the ones used for the venogram.
- A guide wire will be passed through the needle. They will then manipulate the wire and a catheter (a long thin sterile plastic tube) across the narrowed part of the vein.
- A special catheter with a balloon on the end will then be passed over the guide wire and the balloon will be inflated to stretch the narrowed portion of the vein and improve the venous blood flow draining from your arm back into your chest.

### A venous stent insertion

If it is necessary and appropriate, the radiologist may insert a stent across the narrowing to help keep the vein open. The stent is inserted using a specialised catheter.

This is sometimes done at the time of the venoplasty or at a later date.

## After your examination

You will be observed and monitored in the radiology department until you are allowed to go home or returned to the ward. You should eat and drink normally.

**Please ensure you have drunk at least 1 pint or 500ml of water within the 2 hours after the procedure.**

## Important information for patients with renal (kidney) impairment

**If your GFR is less than 60ml/min before the procedure:**

- If you are taking **Metformin** (also called **Glucophage, Glucovance, Duformin, Orabet or Glucamet**) tablets and your **GFR is less than 60ml/min** it will be necessary for you to **stop** taking these tablets for **48 hours after the radiological test**. This is to avoid the build up of acid in the blood following the injection of contrast agent that is given during the procedure. Stopping the tablets temporarily will not cause any harm to you.

**If your GFR is less than 30ml/min before the procedure and are not on dialysis treatment:**

- You will be kept on intravenous fluids for the remainder of the 6 hours

You should have a further kidney function test before you are discharged home from the ward. You may require further monitoring and referral to a renal specialist if your GFR has decreased by 10%.

For information about the effects of X-rays and information about Radiology departments please visit the NHS website:

<https://www.nhs.uk/conditions/x-ray/>

For information about the effects of X-rays read the NRPB publication: "X-rays how safe are they?" on the Health Protection Agency website:

[www.hpa.org.uk](http://www.hpa.org.uk)

Please note that the views expressed in these websites do not necessarily reflect the views of UHCW NHS Trust.

## Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact the number on your appointment letter and we will do our best to meet your needs.

The Trust operates a smoke free policy.

To give feedback on this leaflet please email [feedback@uhcw.nhs.uk](mailto:feedback@uhcw.nhs.uk)

Document History	
Department:	Radiology
Contact:	27161
Updated:	June 2022
Review:	June 2024
Version:	4
Reference:	HIC/LFT/1197/11