

Radiology

Arm fistulogram or fistuloplasty

You have been advised by your hospital consultant that you need to have an arm fistulogram. This may or may not include fistuloplasty treatment. This information explains what is involved and what the possible risks are.

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

Contact the Radiology Department if your weight is equal to or more than 205Kg (32 stone). You may require an alternative examination.

If you have any queries, please do not hesitate to ask the ward staff when you are admitted or contact Radiology Department on 024 7696 7161. If you feel unhappy with any part of your care within the Radiology Department, please ask to speak to a senior member of staff.

Points to remember

- Please bring any sprays or inhalers you are using to your appointment.
- Please leave any valuable possessions at home.
- If you are unable to attend your appointment, please contact the Department using the number on your appointment letter.
- **If you are taking warfarin or other blood thinning medicines (except aspirin), and have not yet received any instructions whether to continue or stop taking the medicine before the procedure, please contact your dialysis unit or Radiology Nursing on 02476 967115 as soon as you get this letter.**



Patient Information

Depending on the reason for taking anticoagulant medicines, You may need a referral to the pre-operative anticoagulation bridging service for a specialist advice on when to stop, and whether a bridging medication is required as a substitute while you are not taking your anticoagulant medicine.

Renal Access/Dialysis Team or Interventional Radiology pre-op Nurse will inform you of the bridging advise when it becomes available.

You will require several pre-procedure blood tests seven days before your procedure

If you are scheduled for admission onto Ward 50 day unit, the Renal Access team would have arranged for these blood tests to be done at your dialysis centre.

If you are scheduled to be admitted as a day case in Interventional Radiology unit, you should have received the blood test request form with this information leaflet. Please arrange to have your blood test taken at your dialysis centre seven days before your planned procedure.

- **Your fistula should not usually be used for dialysis for 24 hours after the procedure. However, if clinically indicated, the fistula can be used as soon as needed for emergency treatment as directed by a senior renal physician.**

What is a fistulogram?

A fistulogram is a specialised examination where images are taken with X-rays to show the artery and vein surgically joined to form an arteriovenous (AV) fistula. This procedure may be performed alongside an arm venogram (venography) which is a similar procedure but takes pictures of the veins in the whole of the arm and central chest.

Why do I need a fistulogram?

A fistulogram is required if there has been a problem using the fistula for haemodialysis. Your doctor needs to find out if your vein is narrowed or blocked, as this could prevent the fistula from working properly.

Patient Information

The examination will be performed by a radiologist (a specialised X-ray doctor) who will be assisted by a radiographer and radiology nurses. It is not always easy to tell how long the procedure will take. As a guide, if you are an inpatient expect to be in the Radiology Department for about one to two hours. If you are a day case in Radiology, expect to be in the department for four to six hours to allow post-procedure recovery.

Are there alternative examinations to a fistulogram?

Ultrasound can be used to look at your veins, but this only gives limited information. Therefore, it is quite common for a fistulogram to still be needed after the ultrasound scan, especially if it is likely to proceed to a fistuloplasty.

What is a fistuloplasty?

When it is appropriate and possible, the radiologist will proceed onto a fistuloplasty or may arrange this at a later date. During this procedure, a small balloon on the end of a catheter is moved into the narrowed section of your vein. The balloon is then inflated which re-opens the narrowing in your vein.

The procedure is more complicated than a fistulogram and you may have to remain in the Radiology Department for a bit longer afterwards. This is because of the hole that was made in your blood vessel during the procedure to allow the balloon and catheter to pass to the part of your vein that needs treating.

At the end of the procedure, You will be transferred back to Ward 50 day unit if you are an inpatient, and to Interventional Radiology recovery bay if you are a Radiology day case for further monitoring for four to six hours.

Why should I have fistuloplasty?

This technique may help to prolong the usefulness of the AV fistula.

Referral and Consent

If you are having the fistulogram and/or fistuloplasty as a planned procedure, then you should have plenty of time to discuss this situation with the medical team. The radiologist who will be performing the procedure will also briefly explain 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 mean such a procedure is not necessary, then they will explain this to you. They will also communicate with the referring clinician and ask you to 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 immediately after the procedure and this will be continued on Ward 50A. Very rarely the bleeding can be so severe that serious complications can arise. The clinician will discuss these with you when you sign the consent form.
- The procedure may not be successful in which case you will need to consider other options to continue with your dialysis treatment, such as the formation of a new AV fistula. This will have been discussed with you by your clinician.
- There is a risk that the procedure will rupture the blood vessel in your arm. This may require surgical intervention.
- Rarely, the injection of the radiological contrast medium, a colourless liquid that shows up on X-ray images, may cause an allergic reaction to occur. This only very rarely requires any treatment. You should always mention any allergies you may have with the clinician at the time.

Patient Information

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 minimize 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 comes 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 the safety precautions to minimise the amount of X-rays you receive.

Safety

The contrast medium contains iodine which will be cleared from your body during your next dialysis treatment.

Please inform the radiologist or radiographer:

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

Patients aged 12 – 55 years, could you be pregnant? The risks of radiation are slightly higher for your unborn child. You will be asked to confirm that you are not pregnant before the examination can proceed.

What will happen when I arrive?

- You will be admitted to Ward 50A and you will then be transferred to the Radiology Department for the procedure. You will return to Ward 50A after the procedure.
- You will be asked to undress and put on a suitable hospital gown.
Please feel free to bring your own dressing gown.

During your examination

The procedure will be again explained to you by the radiologist, 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 fistulogram procedure

It will be necessary for a tight band, known as a tourniquet, to be applied to the arm with your fistula. If you have been told by your doctor to **'never let anyone do this'**, please do not worry. It is necessary for the test to show the larger deep veins in your arm and your doctor knows that we will need to do this.

A small needle or cannula is inserted into a vein in your arm. Radiological contrast medium is then injected through the cannula and X-ray images are taken. A blood pressure cuff will then be inflated tightly on your arm. More contrast is then injected to show the artery that is part of your fistula.

The fistuloplasty procedure

Fistuloplasty is a more complex procedure than a fistulogram. 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 where they will insert a needle. They will insert a different needle to the ones used for the fistulogram.
- They will pass a guide wire through the needle and manipulate this wire and a catheter (a long thin sterile plastic tube) across the narrowed part of your fistula.
- A special catheter with a balloon on the end will then be passed over the guide wire and the balloon will be inflated to hopefully stretch the narrowed portion of your blood vessel and improve the blood flow through your fistula.

After your examination

You will be observed and monitored in the Radiology Department until you are allowed to go home, after a fistulogram or you will be returned to the ward, after a fistuloplasty.

If you are taking metformin (also called **Glucophage, Glucovance, Duformin, Orabet or Glucamet**) it may 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 your blood following the injection of contrast agent that is given to you during the procedure. Stopping the tablets temporarily will not cause you any harm.

For information about the effects of X-rays and information about radiology departments visit the NHS website: <https://www.nhs.uk/conditions/x-ray/>

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

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.

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www.uhcw.nhs.uk/feedback



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