

## Radiology Department

# Arm Fistulogram or Fistuloplasty

### Introduction

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

This leaflet may not answer all your questions, so if you have any queries, please do not hesitate to ask the ward staff on admission or contact us on the number below. If you feel unhappy with any part of your care within the X-ray Department please ask to speak to a senior member of staff.

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

Please contact the X-ray Department if your weight is equal to or more than 205Kg (32 stone) – You may require an alternative examination.

### Points to Remember

- Please bring with you to the X-ray Department any sprays or inhalers you are using
- We also ask you to leave any valuable possessions at home.
- If you are unable to attend please contact the Department using the number on your appointment letter
- If you are on aspirin or any other medication from your doctor **except Warfarin** (see below), please continue to take it as normal.
- **Patients for fistuloplasty who are taking Warfarin or other blood thinning drugs (except aspirin) please contact your dialysis unit 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 your appointment. Depending on the reason for taking anti-coagulation your dialysis unit will advise you if you need alternative treatment.

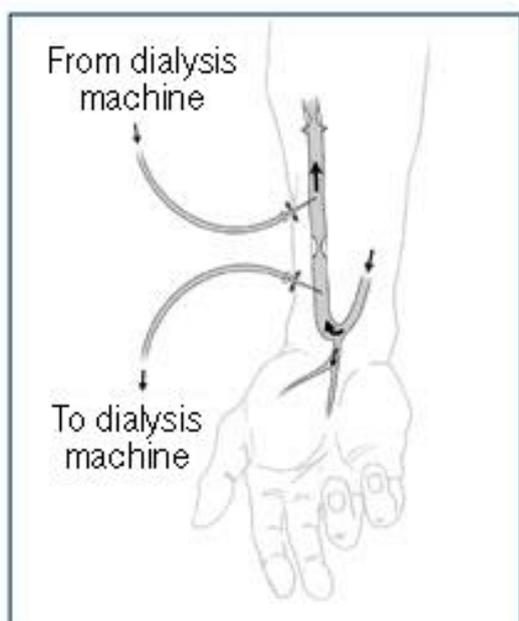


## Patient Information

- All patients will require a group and save blood test seven days prior to the procedure. If you receive your dialysis treatment at a satellite unit, you will be asked to attend the renal day unit on Ward 50 to have this blood test taken. If you receive your dialysis treatment in the Coventry haemodialysis unit your blood test will be taken in this unit.
- **Your fistula should not normally 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 X-ray examination to show images of the vein and artery surgically joined to form the AV fistula. This procedure may be performed in conjunction with an arm venogram (venography) which is a similar procedure but demonstrates the veins in the whole of the arm and central chest.



## Why do I need a fistulogram?

The examination is required if there has been a problem using the fistula for haemodialysis and your doctor needs to find out if there is a narrowing or blockage in the vein preventing the fistula from working properly.

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 predict how long the procedure will take. As a guide, expect to be in the Radiology Department for about 45 minutes to an hour.

### **Are there alternative examinations to a fistulogram?**

**Ultrasound** can be used in the evaluation and diagnosis of the venous system however it is quite common for a fistulogram to still be needed to confirm the ultrasound findings, especially if it is likely to proceed to fistuloplasty.

### **What is fistuloplasty?**

When it is appropriate and possible, the radiologist will proceed on to a fistuloplasty 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 to re-open the narrowing.

The procedure is more complex than a fistulogram and you will have to remain in the radiology department for a short while afterwards due to a large hole being put into a blood vessel. You will then be transferred to Ward 50A 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 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.

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- 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, for example: 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.

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 in order 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, 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 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 the unborn child so you will be asked to confirm that you are not pregnant before the examination can proceed.**

## Preparation for Fistulogram or Fistuloplasty

There is no preparation required for this procedure other than those stated in 'Points to Remember' on page 1

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### 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 following the procedure.
- If necessary you will be asked to undress and put on a suitable gown. **Please feel free to bring your own dressing gown.**

### During your examination

The procedure will be again 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 Fistulogram Procedure

It will be necessary for a tight band (tourniquet) to be applied to the arm with the 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 we will need to do this.

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

### 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. He will inject local anaesthetic into the skin on your arm to freeze the area where he will insert a different needle to the ones used for the fistulogram. He will pass a guide wire through the needle and manipulate the wire and a catheter (a long thin sterile plastic tube) across the narrowed part of the 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 the blood vessel and improve the blood flow through the 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 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

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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.

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

### Document History

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