

## Patient information

# Fistulogram Fistuloplasty

### Interventional Radiology

This document is designed to provide you with detailed information about this procedure. Please take the time to read through this leaflet carefully to gain a better understanding of what the procedure entails, its benefits, risks, and what to expect during and afterward. It is not meant to replace informed discussion between you and your doctor but can act as a starting point for such discussions. If you have any questions about the procedure, please ask the doctor who has referred you, or the doctor performing the procedure.

#### **What is a Fistulogram/Fistuloplasty?**

People who suffer from chronic renal (kidney) failure may require haemodialysis to remove waste products from their blood. The best method of providing haemodialysis is via a fistula. This is formed by joining an artery to a vein. A well-functioning fistula has a bruit (a pulse that you can hear), a thrill (a pulse that can be felt) and good blood flow. The fistula is used regularly and over time may develop problems such as scarring or clots which can decrease the function of the fistula and, if untreated, can block the fistula.

A fistulogram is an X-ray study of a fistula using contrast dye. This allows the doctors to see how the vein and artery in the fistula are shaped. If nothing is wrong, the procedure is finished and you can go home.

If there are some narrowed areas, a small balloon may be opened inside the fistula to open the narrow area. This is a fistuloplasty.

On rare occasions, a stent (a small metal-mesh tube) need to be placed to hold the area of narrowing open.

#### **What are the benefits of Fistulogram/Fistuloplasty?**

The benefits of the fistuloplasty are stretching the narrowing within the fistula in order to treat or prevent problems developing during dialysis and prevent the fistula from blocking altogether.

#### **Who will be doing the Fistulogram/Fistuloplasty?**

A specially trained team of doctors, nurses and radiographers in the x-ray department. The specially trained doctor is called an Interventional Radiologist. They have skills in using different imaging such as X-ray, Ultrasound and CT scanners to carry out procedures.

## **Before the procedure**

The Interventional Radiology nursing team will contact you before your procedure with any information you need to know to get ready for it. This may include stopping medications, other tests, or stopping eating or drinking for some time before the procedure. If you are an inpatient on the ward, they will contact the ward nurse.

If you have any allergies, you must let the nurse/doctor know. If you have been unwell after receiving X-ray dye (used for CT scans) please let the team know.

On the day of the procedure the Interventional Radiologist will go through a consent form with you. You can ask any questions you may have then or call the department before your test on 0151 706 2748 Royal Liverpool hospital, or 0151 529 2925 Aintree hospital.

Please contact us if you are unclear on any of these instructions.

## **How is the procedure carried out?**

### **Will I be given an anaesthetic?**

Yes, the doctor will freeze the skin with some local anaesthetic.

### **Where will the procedure take place?**

Ultrasound room or X-ray operating theatre.

### **How is it done?**

You will be required to change into a hospital gown. You may need to remove your jewellery, glasses, contact lenses or false teeth – check with the nurse. You will then be escorted to the theatre, where you will be looked after by the team.

Position – lay on your back on the X-ray table.

Access – usually the site of the fistula (rarely doctors may use the vessels in the neck to access the fistula).

The Radiologist will use medical imaging equipment to see the area to be treated. This may involve X-ray, Ultrasound or a CT scan. The skin will be cleaned and covered with a sterile drape ready to start the procedure.

The local anaesthetic will be used to freeze the area and then the doctor will perform the procedure.

A needle will be inserted into the fistula, then replaced with a small plastic tube, through which the procedure will be carried out. A small thin balloon can be inserted through this plastic tube, to stretch the areas of narrowing. This may need to be done a few times for the narrowed area to open up enough to improve the blood flow. The doctor uses X-ray dye to decide this. At the end of the procedure, the balloon and plastic tube will be removed. A small stitch or pressing on the skin is usually enough to stop any bleeding. The region will be cleaned, and a small dressing will be applied.

## How long will it take

About one-two hours.

## After the procedure

**Recovery** - Nursing staff will check your blood pressure, pulse, and procedure site in the recovery area. The length of time this is done for depends on each patient/procedure.

**Discharge** If you are an outpatient, you will normally be able to go home the same day, usually two hours from the end of the procedure. You will usually need an escort home from hospital and a responsible adult to stay with you overnight. This can be discussed with nurse when they ring you.

If you are a ward patient, you will be returned to the ward for further observation by the ward staff.

**Your wound** a small amount of bruising around the wound is normal. If you notice any bleeding or swelling around the wound apply direct pressure. If this has no effect you must attend A&E immediately.

**Back to work/driving/normal activities** We would usually recommend not to drive for 24 hours post procedure. This can be discussed with nurse when they ring you.

## What are the risks of Fistuloplasty/Fistulogram?

- Access site complications (pain, bruising, haematoma, pseudoaneurysm, nerve injury).
- Pain.
- Persistence or return of symptoms/fistula dysfunction.
- Vessel rupture causing bleeding and/or requiring surgical repair.
- Thrombosis of fistula requiring further procedures to salvage it, or new access formation (e.g. new fistula or dialysis line placement).
- Infection.
- Stent related complications: misplacement, migration, infection, stenosis, fracture and occlusion/late occlusion. Need for repeat interventions to maintain stent patency.
- Pulmonary embolism.

## Other:

- Allergic reaction.
- Radiation risk (X-ray or CT guidance).

There is always a slight risk of damage to cells or tissues from being exposed to any radiation, including the low levels of X-ray which may be used for this test. The risk of damage from the X-rays is usually very low compared with the potential benefits.

Please be aware that even a small extra amount of radiation may be harmful to an unborn child. If you think that there is a chance you may be pregnant, please contact the IR department.

If you would like more information about radiation risk we have leaflets available, or feel free to discuss this with our staff who will be happy to answer any questions you may have.

### **Are there any alternative treatments available?**

There may be alternative treatments available, such as surgery, to repair or to create a new fistula. You should speak to the doctor that sent you for this test or the dialysis team about this.

It is always up to you whether you choose to proceed with a particular treatment. Some of these treatment options may not be available for you. You should speak to your doctor about this.

### **Further Appointments**

**Follow-up:** If any further appointments are needed, you will be contacted by the team that sent you for the procedure.

**Unexpected problems or concerns:** Ring the Interventional Radiology department if related to this procedure.

Royal Liverpool University Hospital - 0151 706 2748

Aintree University Hospital – 0151 529 2925

If you think you need **urgent** medical assistance please contact NHS111 or attend your local A&E Department.

### **Feedback**

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

### **Further information**

**Interventional Radiology  
Imaging Department  
Royal – 0151 706 2748  
Aintree – 0151 529 2925**

**[www.NICE.org](http://www.NICE.org)**

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Review date: July 2028**

All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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