

**Patient
Information**

Fistulogram or Fistuloplasty

Introduction

This leaflet provides information for renal patients with a fistula or graft who need a fistulogram or fistuloplasty.

The leaflet answers some of the commonly asked questions about having a fistulogram or fistuloplasty. It also explains the benefits, risks and alternatives to the procedure.

What is a fistulogram?

Fistulogram (also known as venogram) is an X-ray of the blood vessels. A special dye is injected into your fistula/graft. The X-rays are taken immediately after the injection. This will then produce detailed images of your fistula/graft.

What is a fistuloplasty?

Fistuloplasty (also known as venoplasty) is a way of relieving a blockage or a narrowing in your dialysis fistula/graft. A catheter (flexible tube) is inserted through the blockage in your vein and a special balloon on the catheter is then inflated. This will open up the blockage and allow more blood to flow through it.

Why do I need the procedure?

Your doctor or vascular access nurse are aware of a problem with part of your fistula/graft. You may already have had a Doppler ultrasound that has shown a blockage or narrowing in your fistula/graft.

It has been decided that a fistulogram/fistuloplasty is the best treatment option for you.

Who will be doing the procedure?

The procedure will be carried out in the Imaging Department by a team of specialists. This will include consultant radiologists, radiology nurses, imaging care assistants and radiographers. The radiologists have expertise in image-guided procedures and the reading of the images produced.

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How do I prepare for the procedure?

Usually, you will be asked to attend the Imaging (X-ray) Department at either Gloucestershire Royal or Cheltenham General Hospital on the day of your fistulogram/fistuloplasty. In some circumstances, you may be admitted to the renal ward before your procedure.

Giving your consent (permission)

We want to involve you in all decisions about your care and treatment. You will be asked to sign a consent form that says you have agreed to the treatment and that you understand the benefits and risks of the procedure. If there is anything you do not understand or you need more time to think about, please tell the staff caring for you.

It is your decision: you can change your mind at any time, even if you have signed the consent form.

Please let staff know straightaway if you change your mind. Your wishes will be respected at all times.

If you would like to read our consent policy, please let a member of staff know.

Is there an alternative?

There is no alternative to this procedure. However it may be possible for the vascular surgeons to create a new fistula if this procedure is not possible.

Do I need to do anything to prepare for the procedure?

You will be asked not to eat for 4 hours before your examination. In most cases you will be allowed to continue drinking water up to the time of the procedure so that you do not become dehydrated.

If you have any allergies, you must let the doctor know.

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If you have previously reacted to intravenous contrast medium, the dye used for kidney X-rays and CT scanning you must let a member of staff know before the procedure takes place. You should also tell the doctor if you are diabetic or if you have had any problems with blood clotting or asthma.

If you are taking the following medications: Clopidrogel, Apixaban, Rivaroxaban, Prasugrel, Asasantin or warfarin, please discuss this with your doctor before attending for the procedure. You will need to stop taking these medications a few days before the procedure.

Full details will be in your appointment letter. In some cases it may not be suitable to have the procedure done as a day case.

What happens during the procedure?

You will be asked to wear a hospital gown and lie on the X-ray table, usually flat on your back. You may also have a monitoring device attached to your arm and finger to monitor your blood pressure, pulse and oxygen levels in your blood. You may be given oxygen.

The skin near the point of insertion of your fistula/graft will be cleaned with antiseptic and most of your body will be covered with a theatre towel.

The skin and deeper tissues over your fistula/graft will be numbed with local anaesthetic. A needle will be inserted into your fistula/graft. An ultrasound machine may be used to make sure that the needle is correctly positioned. The local anaesthetic will sting at first but this soon wears off and the skin and deeper tissues should then feel numb.

Once the radiologist is satisfied that the needle is correctly positioned, a guidewire is passed through the needle and into your vein. The needle is then removed and replaced by a fine catheter.

The contrast medium is injected through the catheter and X-rays are taken (fistulogram).

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If you are having a fistuloplasty, the catheter and wire are moved to the narrow part of your fistula/graft and a balloon inflated. This process can cause some discomfort.

The radiologist will check progress by injecting a contrast medium down the catheter to show how much the narrowed fistula/graft has opened up. When the radiologist is satisfied that a good result has been reached the balloon is let down and the catheter is removed. In some circumstances, a metallic stent may be placed to keep the vein open or to treat bleeding from a small tear.

On removal of the catheter, the radiologist will then press firmly on the skin entry point, for several minutes. This is to prevent any bleeding. On some occasions a small suture (stitch) is used to close the skin entry point. This will be removed after 2 hours. In some cases the stitch will not be removed until the following day.

How long will the procedure take?

Every patient's situation is different. It is not always easy to know how complex or straight forward the procedure will be. As a guide, you should expect to be in the department for up to 2 hours.

What happens afterwards?

Nurses will carry out routine observations these include blood pressure, pulse and temperature. They will also look at the point where the catheter was inserted to make sure that there is no bleeding.

You will normally stay in hospital for a few hours and should be able to go home on the same day.

If you need to contact the department for advice before or after the procedure please call Tel: 0300 422 6765.

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Are there any risks or complications associated with Fistulogram/ Fistuloplasty?

Fistulogram/Fistuloplasty is a very safe procedure but there are some risks and complications that can arise.

The common risks include:

- bleeding at the puncture site,
- bruising and swelling
- pain at the puncture site that is not improved by your usual pain relief
- a change in the colour of your arm
- fever or chills
- discharge or lump at the puncture site
- chest pain or finding it hard to breathe
- unable to feel the bruit (thrill or buzz) in your fistula arm

If you experience any of the symptoms above, please contact the Interventional Radiology (IR) Department. Out of office hours, go to your local Emergency Department.

Sometimes it is not possible to manoeuvre the wire through the blockage despite inflating the balloon several times.

The narrowing may be so severe that it does not open up as much as expected.

The risk of significant bleeding is low (about 3 cases in 100 for fistulogram and 4 in 100 for fistuloplasty). These risks are slightly higher for a fistuloplasty on central vein stenosis.

There is also a slight chance that the fistuloplasty will lead to failure of your fistula/graft. However, without intervention, the likelihood of your fistula failing is higher and a new AV Fistula creation or a line for dialysis may be needed.

These procedures are normally very safe and are carried out with no significant side effects.

The figures for complications given in this leaflet have been taken from recommended standards for complications published by the Royal College of Radiologists.

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Monitoring of your fistula/graft after fistuloplasty

Your dialysis unit will start/restart using your fistula. A repeat Doppler study may be requested and you may need a further fistuloplasty, if the narrowing happens again.

If you are not yet on dialysis, your care will be followed up in the nurse led Access Review Clinic for further assessment of your fistula.

If you have any concerns or worries before or after the procedure you can contact the access nurse or your renal consultants' secretary. The contact numbers can be found at the end of this leaflet.

Where can I find out more?

If you have any questions about the procedure please ask a member of the staff managing your care. We always prefer you to ask questions rather than worry about it. To discuss the procedure further with your renal doctor please contact their secretary on the number below. You may be asked to leave a message on the answering service.

Contact information

Interventional Radiology Department

Gloucestershire Royal Hospital

Tel: 0300 422 6765

Monday to Friday, 9:00am to 5:00pm

Cheltenham General Hospital

Tel: 0300 422 2996

Monday to Friday, 9:00am to 5:00pm

Access Nurse

Tel: 0300 422 6270

Monday to Friday, 8:00am to 4:00pm

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Renal Services Secretary

Tel: 0300 422 8298 or

Tel: 0300 422 6299 or

Tel: 0300 422 6762

Monday to Friday, 8:00am to 4:00pm

Further information

NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

Website: www.nhs.uk

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