

Having a vascular fistulogram and/or fistuloplasty to look at /treat your fistula

Department of Radiology

Information for Patients

Produced: January 2024

Review: January 2027

Leaflet number: 75 Version: 4

Introduction

Please read your appointment letter carefully to check which hospital your appointment is at. This leaflet tells you about 2 examinations called fistulogram and fistuloplasty. Please read it carefully as it has important information and instructions such as how to get ready.

What is a vascular fistulogram?

A fistulogram is a type of X-ray examination. It looks at the inside of a fistula in the arm for patients who have haemodialysis. During a fistulogram a special dye called contrast is injected into the blood in the arm. The doctor can then see the blood flow in the fistula on the X-ray pictures. A fistulogram is usually done to look at the size and shape of the fistula and see if there are any narrowings or blockages in the fistula. This can be when a new fistula fails to develop. It can also be if a fistula that has been there for a long time (mature fistula) gives reduced flows on dialysis or is difficult to access.

What is a vascular fistuloplasty?

This is a procedure that uses a small balloon to stretch open a narrowing or blockage in the fistula. This allows more blood to flow through the fistula. The doctor doing your examination will talk to you if fistuloplasty is needed. They may be able to do the fistuloplasty straight after your fistulogram. In some cases they will talk to other specialist doctors about your fistulogram results before doing the fistuloplasty on another day. This is because fistuloplasty carries a small risk of complications. Your doctor or the specialist doctor in X-ray (radiologist) will talk to you about this.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals
To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

How do I get ready for the examination?

You need to arrange for someone to drive you home after the examination.

Do not drive after this examination.



Eating and drinking instructions:

- **Do not eat for 4 hours** before your appointment time. If you have diabetes and need advice about stopping eating, please talk to your diabetes care provider.
- **Drink as normal.** This helps to protect your kidneys from further damage if you do not yet need dialysis.



Can I take my usual medications?

- Keep on taking your usual medications. Please bring any sprays or inhalers with you.
- If you are on blood thinning medication, the doctor who wanted you to have this examination will give you instructions about taking this.

Coming to the hospital for your appointment:

Please do not bring valuable items to hospital. We cannot take responsibility for looking after your valuables.

Important information before you have X-ray contrast liquid:

The contrast liquid used in your examination has iodine in it. It is removed from your body by your kidneys in your pee (urine). If you have dialysis it will be removed at your routine dialysis.

Some patients get a warm feeling and a metallic taste when the injection is given. Some patients may feel sick. If you do get these feelings they usually last about 1 minute. Please let the staff who are with you know if you get these feelings. Some patients will also have the feeling that they are passing urine, but they are not actually doing so. This is also normal.

Please tell the X-ray staff when you arrive if:

- **You are allergic to iodine or rubber (latex)**, have any other allergies or have asthma.
- **You have had a reaction in the past to a contrast liquid injected into a vein (intravenous contrast).** This is the dye used for kidney X-rays and CT scanning and X-rays of your heart and blood vessels.
- **You are on renal dialysis or have any problems with your kidneys.**
- **You have diabetes.**

The radiographer will ask you a series of questions about your health before the test starts. This is to see if you might be allergic to the contrast agent.

Who will be doing the procedure?

A doctor who specialises in imaging and X-ray treatments (an interventional radiologist) will do the procedure.

There will also be a nurse and a radiographer in the room. There may also be a healthcare assistant present.

As we are a teaching hospital a student may also be in the room. If you do not want this, you can ask that a student is not in the room when you have your examination.

What happens during the fistulogram or fistuloplasty?

- You will take off some of your clothes and put on a hospital gown.
- You will go to the X-ray room. We will talk to you about the examination. You may ask any questions that you have.

Fistulogram:

- The radiologist may start by looking at your fistula with an ultrasound machine.
- A colourless liquid that shows up on X-rays (contrast liquid) is injected into the fistula in your arm. Some patients get a warm feeling and a metallic taste when the injection is given and sometimes may feel sick. If you do get these feelings they usually last about 1 minute. Please tell the staff if you do get these feelings.
- We take a series of X-ray pictures from different positions as the contrast liquid travels up the fistula. We inject the contrast each time a different picture is taken.
- The doctor doing the procedure looks at the X-ray pictures on a screen to look for any narrowing or blockages.
- Your procedure may end at this point.

Fistuloplasty:

- If you are having fistuloplasty it may take place straight after the fistulogram.
- We will numb your skin with local anaesthetic. This may sting to start with but this soon wears off. The skin and surrounding tissues should then feel numb.
- The radiologist will pass a thin tube called a catheter and a balloon into the fistula. The doctor will inflate the balloon to carefully stretch the fistula open. You may feel some discomfort in the arm each time the balloon is inflated. This will only be for very short bursts of time. It will stop when the balloon is deflated. Tell the doctor and nurses if it is too painful. We will give you more pain relief if needed.
- Sometimes the fistuloplasty may need to be done through an artery in the arm or groin. You will be told if this is needed. If this happens you may need to stay in the hospital overnight after the procedure.

How long will the examination take?

A **fistulogram** normally lasts about 20 to 30 minutes.

If **fistuloplasty** is then also done the procedure may last about 1 hour.

Are there any risks?

As with any procedure or operation, complications are possible. We have included the most common risks and complications in this leaflet. The possibility of these happening is different for each person. We will talk to you about your risks before you sign the consent form.

Possible risks from having a fistulogram:

Normally there are no major complications from a fistulogram but complications are possible.

- **Bruising:** A small bruise should be expected at the site of injection.
- **Reaction to contrast liquid:** Some patients may be allergic to the contrast liquid. This may cause symptoms such as feeling or being sick (nausea or vomiting) or a skin rash. If you get any of these symptoms at the hospital, tell the doctor, nurse or other staff looking after you. If you start to get symptoms at home you should contact your GP or call 111

Possible risks from having fistuloplasty:

Fistuloplasty is a very safe procedure but as with any procedure or operation complications are possible.

- **Bruising:** There will be a bruise around the site where the needle has been inserted. This is quite normal. It will usually go away on its own within a few weeks.

If the radiologist needs to use the artery in your arm or groin to treat the fistula there is a chance that the bruise may become large and uncomfortable. This does not happen very often. If a large bruise develops there is a risk of it getting infected. This may then need treatment with antibiotics or surgery.

The radiologist doing your procedure will be able to tell you how often problems with bruises occur and how they are treated.

- **Circulatory problems:** Sometimes damage can be caused to the artery or fistula by the catheter or balloon.

Possible risks from having fistuloplasty through an artery in your arm or groin:

If we have to treat your fistula through an artery in your arm or groin then there are more possible risks:

- **Blockage of other arteries:** Any debris causing the narrowing or blockage may be knocked off the artery or fistula wall and cause further blockage of arteries lower down.
- **Torn fistula:** Stretching the fistula or vein may cause a small tear (called a perforation) by accident.

- These complications may need to be treated by another X-ray procedure or even an operation. If it is not possible to repair damage related to accessing the artery in the groin or arm then there is an extremely small risk to the arm or leg. This could mean the leg or arm has to be taken off (amputation).
- **Fistula stops working:** If it is not possible to repair the damage within the fistula then it may no longer work. This means you may need another access to be created for your dialysis.

Sometimes a problem with a fistula can be because of a narrowing of a vein in your chest. This may need to be treated by stretching the vein in your chest. During this procedure if injury occurs here then this may be extremely serious and even life threatening. If this treatment is likely to be needed then your doctor and radiologist will discuss this with you beforehand.

Despite these possible complications, the procedure is normally very safe and carried out with no major side effects at all.

What happens after the examination?

You will have had an injection into the fistula in your arm. As a result you may have a small bruise after the test. The radiologist may also put a stitch in the skin which can be removed at your next dialysis session.

You should have no other after-effects from this examination.

You need to arrange for someone to drive you home after the examination.

Do not drive for 24 hours after the examination.

- **If you only had a fistulogram** you should be able to go home shortly after the examination.
- **If you have had fistuloplasty** you will need to stay for at least 2 hours on the ward. Nurses will carry out routine observations. They will make sure that there is no major bruising.
- **If the radiologist has had to access the artery in your arm or groin** then you will probably need to stay in hospital overnight. Under certain circumstances you may be able to go home on the same day. The nurse or radiologist will talk to you about this. You will be given more written information on the day to explain your care after the procedure.

If you have any problems after the test when you go home please contact your GP or call the NHS helpline on 111.

How do I get the results?

The results will not be given to you immediately. Your X-ray pictures will be looked at by a radiologist and the results will be sent to the doctor who wanted you to have this examination.

If you are an inpatient the results will be given to the doctors looking after you on the ward.

After your examination we will tell you who the results will go to and how to get your results.

What are the risks from exposure to radiation in this procedure?

The main risk from exposure to X-rays is a higher risk of getting a cancer in the future. This risk is thought to be very small.

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.

Each test that uses X-rays gives a dose on top of this natural background radiation.

The radiation from the X-rays during a fistulogram / fistuloplasty examination is equivalent to getting about a few weeks worth of natural background radiation.

The benefits of having this test are likely to outweigh any possible risks. The risks of not having the test could be greater. We try to keep your exposure to X-rays as low as possible.

What if I need to talk to someone?

If you have any questions or concerns, or cannot make the appointment please call the radiology department on **0116 258 8765** and select option 7. Monday to Friday 9am to 5pm, excluding bank holidays.

Any questions?

If you have any questions you can write them down. This is to remind you to ask when you come for your treatment.



اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغة أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل
જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਨੰਬਰ 'ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ।
Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

Previous reference:

If you would like this information in another language or format such as EasyRead or Braille, please telephone 0116 250 2959 or email equality@uhl-tr.nhs.uk