The Royal Wolverhampton
NHS Trust

Fistuloplasty / Venoplasty

Radiology

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- **Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available**
- **If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111**
- **Keep the environment clean and tidy**
- **Let's work together to keep infections out of our hospitals and care homes.**

Introduction

The aim of this leaflet is to explain the procedure for patients undergoing a fistuloplasty or venoplasty. This leaflet is not meant to replace informed discussion between you and your doctor, but can act as a starting point for outlining the risks and benefits.

What is a fistuloplasty / venoplasty?

Fistuloplasty and venoplasty are procedures which aim to improve the blood flow within the fistula or the vein beyond the fistula for you to have effective dialysis. A balloon mounted on a long fine tube is used to widen the fistula or vein which has become narrowed or blocked. Having stretched the fistula or vein the balloon is deflated and removed.

The process is the same for both fistuloplasy and venoplasty, the groin may also be used to access the vein, including the benefits and risks.

Who has made the decision?

The physician and/or the renal nurse in charge of your care have made the decision for you to have this procedure usually after discussion at the renal access multi-disciplinary team meeting (attended by renal physician, nurse, vascular surgeon and interventional radiologist). You will be requested to have an ultrasound first after which the radiologist may then consent you to have this procedure.

Although this decision has been made in your best interests, you will also have the opportunity for your opinion to be considered and if, after discussion with your doctor, you no longer want the procedure, you can decide against it.

Consent

We must seek your consent for any procedure or treatment beforehand. A written consent will be obtained from yourself, by a doctor, to give permission to have the procedure carried out.

Your doctor will explain the risks, benefits and alternatives where relevant before you sign the consent. A referral will be made and your appointment will be arranged. If you are unsure about any aspect of the procedure or treatment proposed please do not hesitate to ask for more information.

What are the benefits of having a fistuloplasty / venoplasty?

- A successful fistuloplasty/venoplasty enables haemodialysis to be undertaken more effectively

What are the potential risks of having a fistuloplasty / venoplasty?

- There is a small risk of failure of treatment and recurrence of narrowing
- Sometimes the narrowing in a fistula does not respond well to the fistuloplasty / venoplasty and may require a stent (a small metal spring)
- The procedure may damage or rupture the fistula / vein. If this happens you would not be able to have dialysis
- Bruising and tenderness around the puncture site
- If there is bleeding from the area where the catheter was placed, you may have an area where blood collects under the skin called a haematoma. This usually clears up on its own
- There is a risk of the puncture wound becoming infected. This can be treated with antibiotics
- Death as a result of this procedure is extremely rare

Radiation:

Ionising radiation may cause cancer many years or decades after the exposure. We are all at risk of developing cancer during our lifetime. 50% of the population is likely to develop one of the many forms of cancer at some stage during our lifetime. It has been estimated that undergoing this procedure may increase the chances of this happening to you to about 0.1%. The requesting doctor and the doctor that will be performing your examination feel that the benefit of having the test or treatment outweighs the risk from the exposure to radiation. If you have further questions about the risk of exposure to radiation, please talk to your doctor during consent.

Please contact the X-ray department as soon as you receive this appointment if you think you may be pregnant.

When considering this risk, it is important to bear in mind that leaving a narrowing in a fistula without treatment will likely result in your fistula failing.

Contrast agent:

The "dye" that is used to show up the blood vessels can have side effects for a minority of patients:

- 3 in 100 of patients experience nausea and hot flushes
- 4 in 10,000 may have more serious effects including breathing difficulties

If a side effect does occur the doctors, nurses and radiographers are trained to deal with it.

Are there any alternative treatments and what if I decide not to have it done?

The consultant in charge of your care will discuss the alternatives with you, which may include surgery. They will also discuss the consequences of no treatment.

Are there any special preparations required?

These procedures are usually carried out as a day case procedure under local anaesthetic.

- You can eat and drink as normal unless a doctor or nurse has specifically said otherwise
- If you have any allergies or have previously had a reaction to the dye (contrast agent), you must tell the radiology staff before you have the procedure
- Please inform the renal unit or interventional department if you require transport to arrive to the hospital

If you are taking the following medication and the doctor has not discussed them during consent please contact the X-ray department when you receive this information:

Acenocoumarol, Apixaban, Asprin, Bivalirudin, Dabigatran, Dalteparin, Danaparoid, Dipyridamole, Edoxaban, Enoxoparin (Clexane), Fondaparinuxm, Heparin, Phenindione, Tinzaparin, Warfarin.

Who will carry out these procedures?

An interventional radiologist will perform the fistuloplasty / venoplasty. They have special expertise in interpreting the images and using imaging to guide catheters and wires to aid diagnosis and treatment.

Where will the procedure take place?

The procedure will take place in the angiography suite; this is located within the radiology department. This is similar to an operating theatre in which specialised X-ray equipment has been installed.

If you are on a different ward or a day case at the renal unit, the angiography suite will liaise with your ward nurse and porters to arrange transport to your procedure.

What actually happens during a fistuloplasty / venoplasty?

You may be asked to change into a hospital gown. Observations of your heart rate and blood pressure will be taken before, during and after the procedure. This is routine. A team of nurses and radiographers will assist the radiologist during the procedure.

The skin where the procedure is to take place is swabbed with antiseptic liquid and covered with sterile drapes. An interventional radiologist uses an ultrasound probe and X-rays to allow accurate diagnosis and treatment of the narrowed artery or vein through a minute incision. Local anaesthetic (a medication used to numb an area of the body to reduce pain) is injected at the procedure site (this may be your arm or either groin depending on where the fistula or graft is). This may sting for a few seconds but then will go numb.

The interventional radiologist will place various catheters up or down the artery/vein. You may be able to feel this but there should be no pain. During the fistuloplasty / venoplasty the balloon will be inflated to open the narrowing. You may be able to feel this. All tubes will be removed at the end of the procedure. You may be left with a suture; this is used to stop the bleeding.

Will it hurt?

When the local anaesthetic is injected it will sting but this will soon wear off. After this, the procedure is not usually painful. Some people experience pain and discomfort when the balloon is inflated. There will be a nurse next to the X-ray table to look after you. As the dye passes around your body you may get a warm feeling which some people can find a little unpleasant. This should not last long.

How long will it take?

Every patient is different, and is not always easy to predict; however, expect to be in the procedure room for 60 to 90 minutes. Afterwards you will have to stay on the day ward for bed rest and further observations.

What happens afterwards?

You will return to the radiology day case unit, renal unit or ward.

- You will need to stay on the unit for a few hours after a fistuloplasty / venoplasty
- The nurse on the unit will take your pulse and blood pressure to make sure that there are no problems. They will also look at the skin entry point to make sure there is no bleeding from it
- You will need to rest for an hour; you will have your sutures removed
- You may be able to go to renal unit after the procedure to attempt dialysis

What will the advice be when I go home?

The nurse and doctor in charge of your care will give you clear instructions and advice.

- You will / may need to have someone collect you
- Not driving for 48 hours

Special care must be taken when driving especially if your access site is the groin. Staff will give you further information on the day unit, and may advise you not to drive for the first 48 hours after the procedure.

If bruising over the groin is preventing you from breaking quickly and effectively, it is advised you do not drive until the bruise has resolved. Further information can be found on the DVLA website: https://www.gov.uk/guidance/general-information-assessingfitness-to-drive

- Observe the puncture site for any bleeding or swelling
- You will need somebody to stay with you at home for 24 hours following the procedure. You will also need access to a telephone during this time
- Any concerns should be reported to the renal department, the interventional radiology department or your local accident and emergency department
- Do not undertake heavy or physical activities for the next 48 hours
- It is unlikely that the puncture site will bleed, but if this happens, you should adhere to the following instructions
- Stop what you are doing and lie down
- Press firmly on the site with your fingers
- Call NHS helpline on 111or 999, or call the on call renal nurse through switch board. Say you have had a fistuloplasty or venoplasty and the site is bleeding

Will I receive a follow up appointment?

- A follow up appointment may be required after one month

Trainees

A radiology trainee (qualified experienced doctors training in radiology) or occasionally a student may be present during the examination. If you would prefer them not to attend, please let a member of radiology staff know.

How to contact us

If you have any personal access needs, require wheelchair access and wish to speak to a member of staff for further information please contact the interventional radiology department on (01902 307999) ext. 86344 between 9.00am and 5.00pm

Angiography suite/Interventional radiology
Second floor Radiology A2
New Cross Hospital
Wolverhampton
West Midlands
WV10 0QP

Patient Advice and Liaison Service
New Cross Hospital
01902 695362
Email: rwh-tr.pals@nhs.net

New Cross Hospital Haemodialysis Unit
01902 695010
Out of hours – ask for on call renal nurse through switchboard.

Walsall Dialysis Unit
Alumwell Close
Walsall
Telephone: 01922 746876

Cannock Satellite Dialysis Unit
Brunswick Road
Cannock
Telephone: 01543 576480

Pond Lane Renal unit
Pond Lane
Parkfields
Wolverhampton
01902 695455/56

Further information:

Further information about your examination is available from The Royal College of Radiologists:

www.bsir.org/media/resources/BSIR_Patient_leaflet_Fistulogram_fistuloplasty_and_venoplasty.pdf

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。

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