

## Fistulogram, Fistuloplasty and Venoplasty - Information for patients

This leaflet aims to answer some of the questions you may have about having a fistulogram, fistuloplasty or venoplasty. It explains the risks and the benefits of the procedure and what you can expect when you come to hospital.

If you have any questions or concerns, please do not hesitate to speak to the staff caring for you.

### What is a fistula?

A surgeon has created a connection (usually in your arm) between an artery and a vein for your treatment (normally haemodialysis). This connection is called an arteriovenous (AV) fistula.

### What is a fistulogram?

This is an examination of the blood vessels that make up your fistula. In order to see these vessels an Interventional Radiologist needs to inject contrast (x-ray dye) into the vessels using a needle, and take pictures using fluoroscopic x-rays.

### What is a fistuloplasty?

Sometimes your fistula can become narrowed or blocked. This will be seen on the fistulogram. Once the Interventional Radiologist has diagnosed and located the narrowing/blockage, they can treat it using a special balloon called an angioplasty balloon. It is inflated at the narrowing to stretch the vessel and improve the blood flow. This is called a fistuloplasty. If the balloon is inflated in a central vein, this is called a venoplasty.

If the balloon does not improve the narrowing/blockage then occasionally a metal tube called a stent will be inserted to keep the vessel open and allow dialysis to continue.

### What are the benefits of fistuloplasty?

Over time, a fistula can age, and problems such as scarring or clots can decrease its function and the effectiveness of dialysis. Clots can cause blood to flow at a slower rate than the rate your doctor ordered or block a fistula completely. It is important to restore the recommended blood flow rate and treat clots that are forming at an early stage so that your fistula continues to work well and you get the amount of dialysis you need. If a narrowing or blockage is left untreated, it may lead to your fistula failing.

## What are the possible risks of having an angioplasty?

A fistuloplasty/venoplasty, like a fistulogram, is a safe procedure that will improve the function of your fistula for dialysis if successful, but as with any medical procedure there are some risks and complications that can occur. The Radiologist will explain these to you before the procedure. Below is a list of some possible risks:

- Bruising – this can occur at the needle puncture site
- Infection – can usually be treated satisfactorily with antibiotics
- Bleeding at puncture site – uncommon
- Fistula/vessel damage – Risk is low, however if the fistula does get damaged a further procedure may be required (e.g. covered stent) to repair, or even surgery
- Treatment failure – if it is not successful, the doctor will discuss further options

## Contrast

These procedures use x-ray dye (contrast), and very rarely, a reaction may occur. If you have ever had a test that uses x-ray dye and you have had a reaction to it, you should tell the doctor or nurse before you have your procedure. A reaction may take the form of a rash or itching and very rarely, a more severe allergic reaction can occur. The team are well trained to deal with this and have measures in place to deal with this safely should this occur.

If you have had a previous reaction, please let us know, and we can put measures in place to minimise risk from another reaction.

## Radiation – Benefit versus Risk

Fistulograms, fistuloplasties and venoplasties use X-ray radiation. The radiation dose that you get from this procedure is small and the associated risks are low. Clinical staff consider both the risks and benefits when deciding what examination is appropriate for you. The benefits of having the procedure outweigh any risk. Clinical staff are responsible for making sure that the dose you receive is kept as low as necessary to aid your diagnosis or treatment.

## Pregnancy

If you are in the early stages of pregnancy there is a very small risk of x-rays harming your unborn child. If you think you could be pregnant, or you are trying to get pregnant, please tell us before your appointment. Individuals aged 10-55 will be asked to confirm their pregnancy status by the radiographer before the procedure and sign a form.

## Are there any alternatives?

Your referrer has decided that fistulogram/fistuloplasty/venoplasty would be the most useful procedure in your case. The examination will help your referrer to assess you more fully and plan any further treatment that might be necessary. If you would like more information about alternative imaging tests, please speak to the doctor or health care professional managing your care.

## Consent

We want you to be involved in all the decisions about your care and treatment. The Interventional Radiologist will ask you if you are happy for the procedure to go ahead. This is called verbal consent. If you do not wish to have the procedure or are undecided, please tell the Radiologist. Students/trainees may be present during the examination but only with your verbal consent.

Please remember that you can ask the Interventional Radiologist any questions you have at any time before, during or after your scan.

## Pre-assessment

Pre-assessment is not required.

## Fasting

You may be asked not to eat or drink anything for 4 hours before the procedure.

## What happens before the procedure?

You will receive a letter detailing your admission details, and when you receive your letter, please let us know if you have any of the following:

|   |
|---|
| • Severe allergies?   |
| • Have you had a previous adverse reaction to x-ray dye before? |
| • Asthma, which is poorly controlled?                           |
| • Renal impairment (poor kidney function)?                      |
| • Diabetes, which is treated with Metformin therapy?            |
| • Are taking any anti-coagulants (blood thinners)?              |

You will be asked to change into a hospital gown and a small cannula (thin tube) will be inserted in your arm. You will be brought to the Interventional suite in your bed, where you will be met by a team of nurses, a radiographer and an interventional radiologist (doctor). The procedure will be explained to you by the radiologist and you will be asked to sign a consent form. The Royal Victoria Hospital is a teaching hospital and as such university students may be in attendance, with your permission.

### What happens during the procedure?

You will be helped to transfer onto the X-ray table and monitors attached to record heart rate and blood pressure. You will be awake for the procedure.

The skin will be cleaned with antiseptic, and numbed with local anaesthetic (this will sting for a short while). Using ultrasound guidance a small needle will be placed accurately into the fistula. Once in position, a guidewire is placed to allow a fine plastic tube (sheath) to be inserted into the vessel.

This usually takes a short time and once in place you should not feel any pain. Contrast is injected to provide an image and locate the narrowing/blockage. Once located, a catheter with a small balloon on the tip will be inserted into the vessel and guided under x-rays to the narrowing where it will be inflated and deflated several times to try and open the vessel and improve blood flow.

Further pictures will be taken with more contrast to determine whether the fistuloplasty was a success. If no improvement is seen, the doctor may decide to place a stent to keep the fistula open and patent. You will occasionally feel a dull ache when the balloon is inflated, however this will pass once it is deflated again.

Once completed, a stitch is placed at the puncture site or light pressure is applied for a few minutes by the doctor to prevent bleeding. The doctor will decide which is best for you.

### What happens after the procedure?

Once the procedure is completed, you will return to the Day of Surgery Unit/ ward for nursing staff to monitor you post procedure. You will generally stay in for 4-6 hours for this. You can usually eat and drink normally, unless told not to. You will generally go home later that day.

### Aftercare following discharge

An adult must stay with you during the 24 hour period following discharge in the unlikely event of complications. Please have this arranged in advance.

You cannot drive yourself home or use public transport, again, please arrange this advance of your appointment. If you do not have anyone to drive you home, the Trust can help. Please rest at home for 24 hours. Take usual pain relief if needed. Continue with your normal medicines as prescribed, except Metformin (this can restart 2 days after your procedure). Do not exercise, lift heavy items or consume any alcohol during this period. Your fistula should be ready for use immediately post procedure.

If you experience any of the following symptoms after having this procedure, please contact the IR department or go to your local ED department if it is out of hours:

- Severe bleeding at puncture site
- Severe bruising and swelling
- Severe pain at puncture site that doesn't improve with usual painkillers
- A change in your arm colour
- Fever/chills
- Pus, discharge or lump at puncture site
- Chest pain or difficulty breathing
- Inability to feel the bruit (thrill/buzz) in your fistula arm

## Results

You may be able to discuss your procedure with the performing interventional radiologist once it is complete. The performing interventional radiologist will formally report on your procedure, and it will be attached to the images on our Radiology Information System (RIS). A copy of the report will be sent by Radiology to the referring clinician. Any follow up will be arranged by the referring clinician.

## Image sharing

Your images will be electronically stored on the hospital picture archiving system. This data can be accessed throughout the Belfast Health and Social Care Trust and other doctors and health care professionals who are directly involved in your care. The ability to share images and radiological reports will improve the safety and quality of your care by ensuring that the right information is available in the right place at the right time.

In order to improve the medical services we provide we may also use your data as anonymously as possible for internal audit and medical education. If you would prefer that your data is not used for these purposes, please inform a member of staff when you attend for your examination.

If your data is to be used for research, then a separate consent process will be used. You will be asked for your consent, should this be the case.

## Contact us

If you have any queries, we will be happy to answer any questions before or after your procedure and you can contact us on the number given on your appointment letter.

For procedures performed at the Royal Victoria Hospital, please email [InterventionRadRVH@belfasttrust.hscni.net](mailto:InterventionRadRVH@belfasttrust.hscni.net) Tel: 02896156661 Interventional Radiology Secretary RVH

For procedures at the Belfast City Hospital, please email [InterventionRadBCH@belfasttrust.hscni.net](mailto:InterventionRadBCH@belfasttrust.hscni.net) Tel: 02895041165 Interventional Radiology Secretary BCH

## Feedback

We hope you found the information in this leaflet helpful. If it did not tell you what you needed to know or you would like to provide any feedback on your experience please let us know so that we can make any necessary improvements.

### ***You can provide feedback on your experience:***

Telephone: (028) 9504 8000 (Monday-Friday: 9am-4pm)

Textphone: 18001 028 950 48000

By email: [compliments@belfasttrust.hscni.net](mailto:compliments@belfasttrust.hscni.net)

By email: [complaints@belfasttrust.hscni.net](mailto:complaints@belfasttrust.hscni.net)

By completing an online form:

<http://www.belfasttrust.hscni.net/contact/FeedbackForm.htm>

## Care Opinion



We invite you to share your experience by clicking the following link:  
<https://www.careopinion.org.uk/>

or by scanning the following QR code on your smartphone or tablet:



## Language and accessible support services

### Deaf/Hard of Hearing

If a Sign Language interpreter is required, please either telephone **028 9615 8900** via the Sign Video remote interpreting service (<https://signvideo.co.uk/deaf-community/>) or email us at [MPHAdminFOH@belfasttrust.hscni.net](mailto:MPHAdminFOH@belfasttrust.hscni.net) and we will arrange one for your appointment. Please have your H&C number ready when calling or include it in your email. This can be found at the top right corner of any Health and Social Care letters you may have received.

If you are unable to hear on the phone and need to contact us with regards to your appointment you can email us at [MPHAdminFOH@belfasttrust.hscni.net](mailto:MPHAdminFOH@belfasttrust.hscni.net).

### Do you need this information in another format or language?

The Trust has access to interpreting and translation services. If you need this information in another language or format, including Braille, large print, CD, audio tape please contact the telephone number **028 9615 8900** or e-mail address [MPHAdminFOH@belfasttrust.hscni.net](mailto:MPHAdminFOH@belfasttrust.hscni.net), and we will do our best to meet your needs.

### Polish - Czy potrzebujesz tych informacji w innym formacie lub języku?

Fundusz ma dostęp do usług w zakresie tłumaczeń ustnych i pisemnych. Jeśli potrzebujesz tych informacji w innym języku lub formacie, w tym w piśmie Braille'a, dużym druku, na płycie CD, kasecie magnetofonowej, skontaktuj się z nami pod numerem telefonu lub adresem e-mail **028 9615 8900 / MPHAdminFOH@belfasttrust.hscni.net**, a my dołożymy wszelkich starań, aby spełnić Twoje potrzeby.

### Arabic - هل تحتاج هذه المعلومات بصيغة أو بلغة أخرى؟

تستطيع الجمعية توفير خدمات الترجمة الفورية والتحريرية. إذا احتجت هذه المعلومات بلغة أو بصيغة أخرى، بما فيها صيغة برايل Braille أو صيغة بالأحرف الكبيرة، أو في سي دي CD أو في شريط مسموع، يُرجى الاتصال برقم التليفون أو عبر البريد الإلكتروني **MPHAdminFOH@belfasttrust.hscni.net / 028 9615 8900**، وسوف نبذل قصارى جهدنا في تلبية احتياجاتك.

### Lithuanian - Ar jums reikia šios informacijos kitu formatu ar kalba?

Tarnyba gali suteikti vertimo žodžiu ir raštu paslaugas. Jei reikia šios informacijos kita kalba ar formatu, įskaitant Brailio raštą, didelį šriftą, kompaktinį diską, garso įrašą, skambinkite telefonu arba susisiekite el. paštu [MPHAdminFOH@belfasttrust.hscni.net / 028 9615 8900](mailto:MPHAdminFOH@belfasttrust.hscni.net) ir mes padarysime viską, kad patenkintume jūsų poreikius.

### **Romanian - Aveți nevoie de aceste informații într-un alt format sau altă limbă?**

Trustul are acces la servicii de interpretariat și traducere. Dacă aveți nevoie de aceste informații într-o altă limbă sau într-un alt format, inclusiv Braille, tipărire cu caractere de mari dimensiuni, CD, înregistrare audio, atunci vă rugăm să ne contactați la numărul de telefon sau la adresa de e-mail

**[MPHAdminFOH@belfasttrust.hscni.net](mailto:MPHAdminFOH@belfasttrust.hscni.net) / 028 9615 8900**, iar noi vom face tot posibilul pentru satisfacerea necesităților dumneavoastră.

### **Tetum - Ita presiza atu informasaun ida ne'e iha formatu ka lian seluk ka lae?**

Fidusiáriu ida ne'e iha asesu ba servisu durubasa no tradusaun. Se Ita presiza informasaun ida ne'e iha lian ka formatu seluk, inklui letra Braille, letra boot, CD, kasete audio, entaun favór telefone número ka enderesu e-mail

**[MPHAdminFOH@belfasttrust.hscni.net](mailto:MPHAdminFOH@belfasttrust.hscni.net) / 028 9615 8900**, no ami sei halo esforsu tomak atu kumpre Ita-nia nesesidade sira.