

## Endovascular Aneurysm Repair (EVAR) - Information for patients

This leaflet aims to answer some of the questions you may have about having a vascular angioplasty. 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 an aneurysm?

Arteries carry blood away from your heart to the rest of your body. An aneurysm occurs when the artery walls weaken and the vessel swells and balloons out. These usually happen in the abdominal aorta which is the vessel from the heart, through the tummy (abdomen) to the rest of the body and is called an abdominal aortic aneurysm (AAA).

If the 'balloon' grows large enough, there is a danger that it can burst (rupture). This is why we treat aneurysms to prevent them from rupturing.

### What is an EVAR?

An EVAR is a way of repairing the ballooning vessel by inserting covered metal mesh tubes (stents). It is a minimally invasive surgery performed through a small hole in your groin by a vascular surgeon and interventional radiologist. With EVAR the aneurysm is repaired using a special stent graft. It is a small, fabric wrapped, flexible mesh tube placed inside the artery to 'patch' the ballooning section and strengthen it to prevent it from bursting.

### Why do you need an EVAR?

You will already have had imaging scans to look at the aorta in your abdomen which will have shown the artery is enlarged and has developed into an aneurysm. The size of the aneurysm is one which is at risk of rupture. Therefore repairing the aorta before this happens usually has good results and is important, as most people will not survive if their aorta ruptures. Not all patients with an aneurysm are suitable for an EVAR, but the imaging has shown that yours is.

### What are the benefits of EVAR?

Having EVAR should prevent your aneurysm from bursting. The benefits of EVAR of traditional surgery are:

- No large abdominal surgical incisions
- Faster recovery time and shorter stay in hospital
- Less pain
- Reduced complications.

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

As with any medical procedure there are some risks and complications that can occur. The vascular surgeon/ radiologist will explain these to you before the procedure. Some are less than major surgery and others are about the same. The majority of patients have no major complications. It is important that you are aware of the following possible risks before you sign your consent form:

- Some patients can have an allergic reaction to the dye used to obtain the x-ray pictures. Usually this is mild e.g. a skin rash but on rare occasions it can be more serious
- The iodine in x-ray dye can affect kidney function, especially if there is already some kidney damage. A routine pre-procedure blood test will be done to assess your kidney function and if required intravenous fluids and medication can be given before and after the procedure to reduce this risk
- Bruising or bleeding can occur under the skin where the catheter is inserted. This is very common and can take 1 or 2 weeks to go away
- Sometimes the artery can be damaged which can be treated at the time by putting a covering stent around it to seal the tear. If this is not possible an operation to repair the artery may be necessary. The risk of needing this however is less than 1%
- Most common complications are wound infections at the procedure site which can be treated with antibiotics
- 1 in 10 patients will need to have a further operation in the future if a leak is detected around the stent during your follow up appointments
- Occasionally it is not possible to insert the stent graft in the desired position so surgical conversion may be required, although this is uncommon
- There are small risks related to the anaesthetic which will be explained to you by the anaesthetist
- Nationally, the risk of death from an EVAR is around 4.3%, in other words 96 in every 100 patients makes a full recovery from the procedure

## Contrast

EVAR uses x-ray dye (contrast), and very rarely, a reaction may occur. If you have ever had a test that uses radio-opaque dye and you have had a reaction to it, you should tell the doctor or nurse before you have your EVAR. A reaction may take the form of a rash or itching and very rarely, a more severe allergic reaction can occur. The team 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

EVAR insertions use X-ray radiation. The radiation dose that you get from an EVAR insertion 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 EVAR insertion 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.

## Are there any alternatives?

Your referrer has decided that angioplasty 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

We will send you information about how to prepare for your hospital stay with your admission letter. Please read this information carefully. You need to be an inpatient for the procedure.

## Fasting

You may be asked not to eat or drink for 4 hours before the procedure, although you may still drink clear fluids such as water.

## What happens before the procedure?

Please attend the appropriate department as stated on your appointment letter.

You will be given a hospital gown to wear and asked to confirm you understand what is going to happen and that you give your consent.

The procedure can be carried out with either a full general anaesthetic or a needle in your back to numb your lower body (spinal). This will all be discussed prior to the procedure. 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?

The procedure will take place either in the interventional radiology department or in theatre. A team of doctors, including a vascular surgeon and interventional radiologist will perform the procedure along with an anaesthetist, radiographer and team of nurses. You will be anaesthetised for the procedure.

Under sterile conditions the vascular surgeon will make small incisions in the groin to expose the artery. Once the artery is exposed a special guide wire and catheter (fine plastic tube) will be inserted and guided to the correct position using X-rays to obtain the images required. Then the stent graft is introduced from the groin over this catheter to the required position. Once the aneurysm is satisfactorily excluded the tubes and wires are removed and the arteries in the groin closed with stitches.

## What happens after the procedure?

You will be taken to the recovery ward where you will need to stay flat in bed and be closely monitored by nurses. When you are well enough, you will be taken back to your ward on a bed where routine observations will be carried out. The skin entry point will be checked to ensure there is no bleeding. Generally you will have to stay in bed for a few hours until you have recovered. You will rest in bed overnight but will be able to eat and drink normally.

There may be a little discomfort related to the groin for a few days after the procedure. This usually settles quickly and can be helped with painkillers. You should be fit for discharge after 3-5 days. Full recovery from an EVAR usually takes between two to four weeks after the procedure. The speed of your recovery can be affected by your age and general fitness. You will not feel the stent graft inside you.

## What happens next?

There is a small chance that your aneurysm will continue to fill after a stent graft is inserted or the graft may move. Therefore you will be checked regularly with CT or MRI imaging. The first scan will be soon after the insertion with increasing intervals thereafter.

## Results

You may be able to discuss your procedure with the surgeon or 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** ir mes padarysime viską, kad patenkintume jūsų poreikius.

File name: PIL - Endovascular Aneurysm Repair (EVAR)	Page 6 of 7	Version 2.0	Date of Issue: 29 <sup>th</sup> January 2024 Date of Review: January 2026
--	----------------	----------------	--

### **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 Braile, letra boot, CD, kasete audio, entaun favór telefone númeru 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.