

Endovascular Aneurysm Repair (EVAR)

Introduction

This leaflet is a guide to Endovascular Aneurysm Repair surgery and should help to answer some of the questions you may have.

Abdominal aortic aneurysm

The main blood vessel that comes from the heart is called the aorta. Most aortic aneurysms affect the part of the aorta in the abdomen (belly). An abdominal aortic aneurysm is a swelling of this artery that happens when the wall of this artery becomes weak. This swelling is far more common in men aged over 65 years than it is in women and younger men, so men are invited for ultra sound screening in their 65th year. Sometimes the swelling is picked up on other scans incidentally.

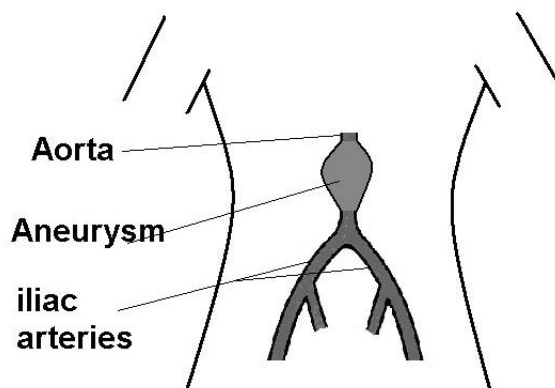


Figure 1: Diagram showing abdominal aortic aneurysm.

Aortic aneurysms do not usually cause any symptoms. You will need to seek urgent medical attention if your known aneurysm causes abdominal or back pain.

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Department

Vascular

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Patient Information

Why do I need the operation?

The decision to operate on an aneurysm that is not causing symptoms depends on its size and the risks of surgery. Many smaller aneurysms never need surgery. With larger aneurysms, having an operation is more likely if the risk of the aneurysm rupturing (bursting) is greater than the risk of having surgery. Your consultant will have talked about the risks with you when thinking about carrying out an operation.

If the aneurysm carries on getting bigger, there is a greater risk that the aneurysm will rupture. When this happens there is severe internal bleeding which is life threatening and means that you need medical attention straight away.

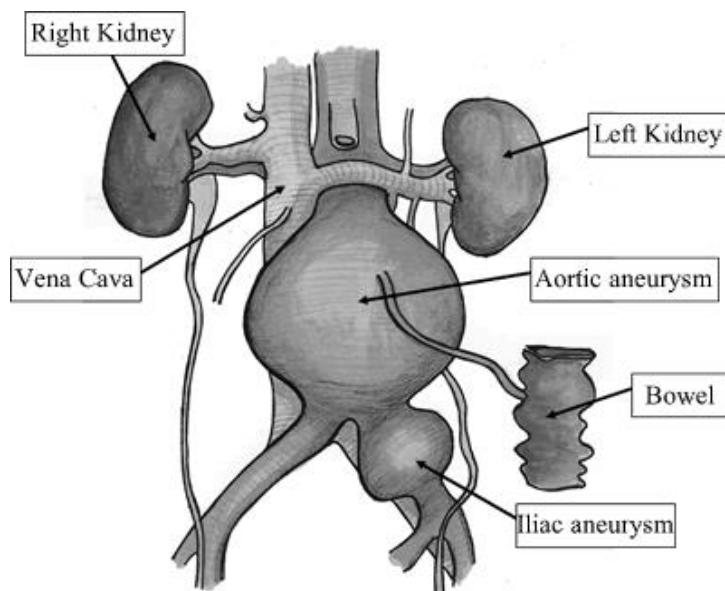


Figure 2: Diagram showing abdominal and iliac aneurysms

About the operation

Studies have shown that your aneurysm can be treated with what is called a 'stent graft system' to strengthen the aorta from the inside, this is known as an Endo Vascular Aneurysm Repair (EVAR). A stent-graft is a metal mesh tube covered by the same material that would be used in open surgical repair. This tube usually divides into two limbs at its lower end, like trouser legs.

Patient Information

The stent-graft is inserted into the aorta through the groin arteries (main arteries to the legs), through two small cuts, one in each groin. It is then positioned and released across the aneurysm and seals the aneurysm at the top and bottom. Blood will then flow freely through this tube without touching the artery wall outside it.

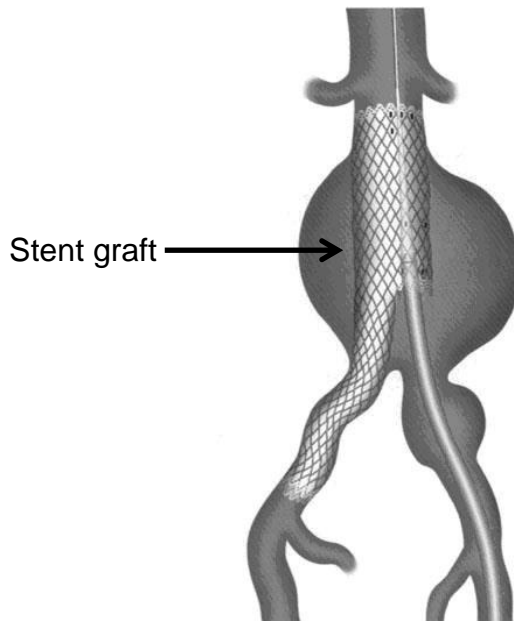


Figure 3: EVAR surgery

Alternative treatments

The type of treatment we can offer you will depend on the size, shape and location of the aneurysm, as well as your general health. Not all aneurysms can be treated with EVAR and in these cases the more traditional 'open' operation of cutting into your abdomen, or carrying out 'keyhole' (laparoscopic) may be offered.

The other option is for us to continue checking the aneurysm but this may mean you have a greater risk of the aneurysm bursting as it gets bigger.

These options will have been thought about carefully and discussed with you when planning your treatment.

**Patient
Information****Benefits of EVAR**

- Recovery is quicker as you will have smaller cuts (incisions) than with open surgery. Patients tend to stay in hospital for usually 3 days
- As the surgery is less invasive, complications affecting your heart and lungs are less common
- The risk of death is also less with this option.

Risks and complications

- As with all operations there is a risk of complications, such as a heart attack. Very rarely, there is also a risk of not surviving the surgery. This can depend on your overall fitness and will be fully discussed with you.
- There is a small risk of graft, wound, or chest infection following an operation. We do all we can to reduce these risks, one of which is to test you for the bacteria MRSA before you have your operation
- Operating on the blood vessels carries a risk of damaging the circulation to other areas of the body such as the legs or kidneys, bowel or spinal cord. If this happens you may need another operation to correct this, or we may just need to monitor you more carefully after your operation
- We cannot say for certain how long the stent graft will last. At the moment, we follow up patients who have this type of surgery, for their lifetime
- Blood can leak into the area between the stent graft and the aneurysm; this is known as an 'endoleak'. In some cases patients need to have more treatment to put this right. In very rare cases the stent graft has to be taken out and repair of the aneurysm has to be carried out using open surgery.
- Having major surgery can cause blood clots forming in the legs or lungs and pressure sores. These can happen because you are not as active after surgery, as you would normally be. We like patients to be walking around the day after their surgery as this will help to get blood flowing around the body. You will also be given small injections of a medication which thins the blood to help prevent clots from forming.

**Patient
Information**

What to expect

You will be asked to come into hospital on the day of your operation or on the day before and will be in hospital for about 3 days.

On the day of your operation you will be taken to the operating theatre and given a general anaesthetic, local anaesthetic or an epidural which is a thin tube (drip) going into your back to make the area comfortable. The type of anaesthetic will be discussed with you before your surgery.

The operation is carried out through a small cut (incision) in each groin at the top of both legs. The surgeon and the radiologist (X-ray specialist doctor) may work together, under the guidance of X-ray imaging, to position the stent graft inside your aorta. The stent graft is inserted in a collapsed form and then opened inside the aorta. The operation takes about 2 hours but it may be longer. You will go back to the ward after a short stay in the recovery area, as soon as we are happy that your condition is stable.

A tube (catheter) will be put inside your bladder to drain away the urine. This is usually taken out the next day when you will be able to pass urine normally.

Pain control

You can expect to have some pain and discomfort after your operation, but try not to worry as strong pain relief is used to control this. At first, the pain relief may be given through the epidural. The anaesthetic doctor and a specialist nurse monitor this closely to make sure that the pain relief is working well.

The pain relief is slowly reduced and when the epidural is taken away you will be given pain relief tablets regularly.

Diet and fluids

You will be able to eat and drink normally after your operation. We can give you medication to deal with any nausea or vomiting if this is needed.

**Patient
Information**

Wound care

Dissolvable stitches will be used to close the wounds which will be redressed and checked regularly until you are discharged home. You will have clear dressings over the wounds which are water resistant, allowing you to have a shower or bath normally. The clear dressings will start to peel off after a few days, once this happens please take off the dressings and leave the wounds uncovered.

Going home

Once you are mobile, comfortable and able to look after yourself, we will arrange for you to go home. Most people go home the day after their operation. It is important that you have restful periods and slowly build up your activity each day. The stent graft cannot be damaged by bending or vigorous exercise.

You can begin driving again once you can perform an emergency stop without pain or hesitation. You should inform your car insurance company that you have had an operation.

Follow up

You will be seen in the outpatient clinic about 6 weeks after your discharge home from hospital. We will also arrange for you to have a CT (computerised tomography) scan to check your stent graft, you will have had this scan before you come for your clinic appointment. You will then be told when your next scan will be. This is usually every 6 months for the first year then once a year from then on, and will alternate between a CT scan and an ultrasound scan.

You will need to be followed up with scans for the rest of your life. If you have any problems before this please contact your GP for advice.

**Patient
Information****Contact information**

If you have any minor concerns before being seen in the follow-up clinic please contact your GP or NHS 111 for advice.

NHS 111

Tel: 111

Or telephone Gloucestershire Hospitals NHS Foundation Trust

Tel: 0300 422 2222 - Switchboard

When prompted ask for the operator then your consultant.

Alternatively, if you are worried or feel unwell phone 999 or attend the Emergency Department.

Further information

More information about aortic aneurysms can be found at the following websites:

National Institute for Health and Care Excellence (NICE)

Website: www.nice.org.uk

Vascular Society

Website: www.vascularsociety.org.uk

The Circulation Foundation

Website:

www.circulationfoundation.org.uk/helpadvice/abdominal-aortic-aneurysm/endovascularaneurysm-repair-evar

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