

Open repair of abdominal aortic aneurysm

i **Information for patients**
Sheffield Vascular Institute



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SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST



You have been diagnosed as having an abdominal aortic aneurysm, and it has now reached a size where we should think about repairing the damaged area of the aorta.

You should already have had the leaflet 'Abdominal aortic aneurysm'. This leaflet explains more about abdominal aortic aneurysm repair and answers some of the most frequently asked questions. If after reading this leaflet you have any questions or concerns, you should write them down and discuss them at your next appointment.

Where will my hospital appointments take place?

Your appointments will usually be at the Sheffield Vascular Institute at the **Northern General Hospital**. We also run local outpatient clinics at the Royal Hallamshire Hospital, Rotherham and Barnsley District General.

Sheffield Vascular Institute is a large vascular centre, specialising in the treatment of all circulatory conditions affecting the arteries, veins and lymphatics. If you wish to find out more about the Sheffield Vascular Institute, please look under the Guide to Services section of the Sheffield Teaching Hospitals NHS Foundation Trust website (www.sth.nhs.uk)

Why do I need the operation?

Because the main artery (aorta) in your abdomen (tummy) has stretched and weakened (aneurysm). The operation repairs the stretched section so that it will not burst (rupture).

Are there any alternatives to open repair?

There is an alternative method to repair an aneurysm known as EVAR. This involves inserting a stent graft into the aorta through small incisions in the groins. Both options for repair will be discussed with your surgeon, including the pro's and cons of each. Further information can

be found in a separate leaflet 'Endovascular Repair of Abdominal Aortic Aneurysm'.

You also have the option of no treatment. This means leaving the aneurysm alone. Some patients survive for many years with a larger aneurysm, however we have no accurate way of predicting if an aneurysm will rupture. Further information about this can be found in a separate leaflet 'Abdominal Aortic Aneurysms'.

How long will I need to be in hospital?

Your surgery involves admission to hospital for about 7 to 10 days. The operation is usually carried out the day after your admission. If you recover from the operation very quickly you may be discharged home sooner than 7-10 days.

Will I need any tests first?

To check that you are fit enough for the operation, a scan of your heart, lung function tests and an exercise test are usually performed before the decision to operate is made. You will then be seen in the Pre-admission Clinic 1 or 2 weeks before your surgery. You will have a number of further pre-operative tests if these have not already been performed, including: blood tests; an electrocardiogram (ECG); a chest x-ray (CXR); and a cardio pulmonary exercise test (CPX).

Surgery school

Before your surgery, you will be invited to surgery school. These are educational sessions for you and a family member (or friend) to attend. They will help in preparing you physically and mentally for this type of surgery. You will receive important information on making changes to improve your health beforehand, which helps in reducing complications. You will also receive information about your recovery, what to expect afterwards and what to expect in critical care.

We strongly encourage you to attend these sessions. They take place away from the hospital site but are run by hospital staff.

Do I need to bring anything in particular with me?

Please bring all the medicines you are taking into hospital with you. You will also need to bring toiletries, nightwear, and glasses or hearing aid, if you wear them. We do ask that you bring a supply of your own clothing into hospital, especially if you will be in for a long stay, perhaps because you are going to have physiotherapy and occupational therapy rehabilitation. However, we do advise that you leave valuables and cash at home, with the exception of a small amount of cash for you to purchase newspapers and other items, or to pay to use the patient-line.

Before your operation

Before the operation, one of the surgeons will see you to check that you are happy to proceed with the operation and the anaesthetist will see you to double-check that you are fit for the operation. Your nurse will also explain the ward routines and will answer any other questions that you may have.

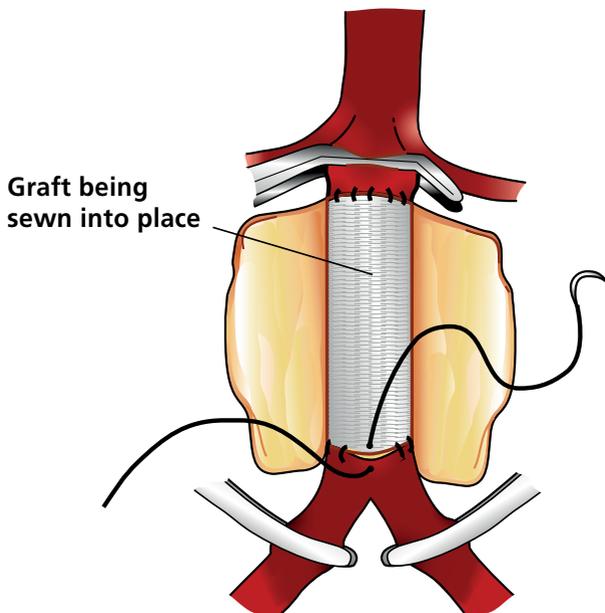
We must obtain your consent for any procedure or treatment beforehand. Staff will explain the risks, benefits and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.

You will be asked not to eat or drink anything for 6 - 12 hours before the operation. We will give you more detailed information about this before you are admitted. You may be given a high-energy drink to take on the night before surgery.

If you feel unable to sleep, please ask the nurses or doctor to give you a sleeping tablet to allow you to get plenty of rest. About one hour before the operation you may be given a sedative.

About the operation

Open surgical repair involves sewing in a new plastic tube (graft) to replace the weakened section of the aorta. The operation is done through an incision in the abdomen under a general anaesthetic in the operating theatre.



This is a big operation and up to 1 in 20 (5%) patients do not survive. The actual risk varies from patient to patient and largely depends upon the presence of other medical problems. This operation has been done for many years and is known to be very reliable.

As well as being put to sleep you may have a small tube placed in your back (epidural) to help with pain relief following surgery. Whilst you are asleep, a catheter tube will be inserted into your bladder to drain urine and a tube into your stomach (via your nose) to stop you feeling sick. You will also have a small tube in the artery in your wrist for blood pressure measurements and a tube into the vein in your neck to give you fluid and monitor the vein pressure.

You will have a large cut in the middle of your abdomen and occasionally it is necessary to make a smaller cut in one or both groins. The incision will be vertical or across the abdomen, and this will be decided by your specialist who will usually inform you what to expect before the operation. The weakened section of the aorta will be replaced by a tube (graft) which is synthetic.

The wounds are closed with a stitch under the skin that dissolves by itself, or by clips that will need to be removed.

After the operation

You will usually be taken to the High Dependency Unit (HDU) following your operation to enable us to monitor your progress closely.

You will be given intermittent support for your breathing, using a tightly fitting face mask for the first 1-2 days after your surgery. This might feel uncomfortable, but is thought to be of benefit and is used routinely as long as patients are able to tolerate it.

You will be visited by the physiotherapist after your operation. This is to help you with your breathing to reduce the risk of you developing a chest infection. It is sometimes necessary for you to remain on a breathing machine for a period after the operation. In this case you will need to be nursed on the intensive care unit (ITU).

Following this sort of surgery, the bowel sometimes stops working for a while. You will be given all the fluids you require in a drip until your bowel will cope with fluids by mouth.

A blood transfusion may also be required.

We will try to keep you free of pain by giving painkillers by injection, via a tube in your back, or by a machine that you are able to control yourself by pressing a button (patient controlled analgesia). As the days pass and you improve, the various tubes will be removed and you will be returned to the normal ward until you are fit enough to go home.

Are there any risks?

- **Discomfort** from your wound is normal for several weeks following surgery, especially when you cough.
- **Bleeding** within the abdomen or from groin wounds can occur, and might require a return to the operating theatre for further surgery.
- Wounds sometimes become **infected** and these can usually be successfully treated with antibiotics. Infection of the graft itself is very serious but fortunately rare.
- **Chest infections** can occur following this type of surgery, particularly in smokers, and may require treatment with antibiotics and physiotherapy.
- The **kidneys** can also be affected by the operation especially if they were not working well before the operation.
- Sometimes the **bowel** is slow to start working again. This requires patience, and fluids and liquid food will be provided in a drip until your bowels get back to normal.
- Very occasionally the **blood supply** to the bowel or your legs can be damaged, and this may require further surgery. However, the risk of requiring an amputation is much less than 1 in 100 (1%).
- **Sexual activity** may be affected due to nerves in your tummy being affected by the operation. In men this can lead to erectile dysfunction and/or ejaculatory dysfunction.
- In the long-term, there is a risk of developing a hernia where the wound on your abdomen has been closed, and this might require a subsequent operation.
- As with any major operation such as this, there is a risk of you having a **medical complication** such as a heart attack. As mentioned earlier, there is a risk of not surviving a major operation of this kind, and up to 1 in 20 patients (5%) might not survive their surgery.

Your doctors and nurses will try to prevent all these complications and to deal with them rapidly if they occur.

What about afterwards?

If dissolvable stitches have been used, these do not need to be removed. If your stitches or clips are the type that need removing, and this is not done whilst you are still in hospital, the practice or district nurse will remove them and check your wound.

How long before I can resume normal activities?

You will feel tired for many weeks after the operation, but this should gradually improve with time. Regular exercise, such as a short walk, combined with rest is recommended for the first few weeks following surgery. After this you should be able to make a gradual return to your normal activity within 6 weeks or so.

What medication will I need?

You will usually be prescribed aspirin or a similar tablet called Clopidogrel to reduce the stickiness of the blood and a statin to reduce your cholesterol level. An alternative to aspirin may be prescribed if you cannot tolerate this. Tablets for blood pressure may also be started, or your blood pressure medication changed after the operation. All these medications are aimed at reducing the risk of further problems from arterial disease.

When can I return to driving?

You may return to driving after 6 weeks following the operation, but this may be longer if you still feel weak. You must be able to perform an emergency stop comfortably. You must also inform your insurance company of your operation. If you have any concerns you may ask your specialist at your outpatient appointment or speak to your GP.

Will I need to come back to hospital for a check up?

You will usually receive an appointment to be seen in the outpatient clinic in about 6 - 8 weeks to check that the wound has healed properly.

Follow-up scans are not routinely needed after this operation. Very occasionally, in some situations, some patients do need a follow-up scan. Your consultant will advise if this is necessary for you.

How can I help myself?

If you smoke you must make a determined effort to stop completely. Continued smoking will cause further damage to your arteries. Smoking cessation help is available from your GP or the hospital.

General health measures such as reducing weight and regular exercise are also important.

Is there any activity that I should avoid doing?

You should avoid lifting heavy items until your abdominal muscles have regained their strength. Regular exercise will help them to regain their strength.

What if I think there is something wrong when I get home?

If you think that there is something wrong with your wound or abdomen (tummy) once you get home, you should contact the ward from which you were discharged. This should be Firth 2:

- **0114 271 4602**
- **0114 271 4683**

National Vascular Registry

Sheffield Vascular Institute participates in the National Vascular Registry. This is a database of vascular surgery nationally, and allows our data to be compared with other vascular units in the UK. The data collected includes your name, date of birth, NHS number, hospital number and GP practice, as well as details of your treatment. The data collected is stored securely on a database at a London University Hospital and we would ask your consent for this. The general public are allowed access to view an individual surgeon's outcomes, or a unit's outcomes, but individual patient details are not accessible to the public.

If you have any questions about this, please discuss them with one of your vascular doctors.



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