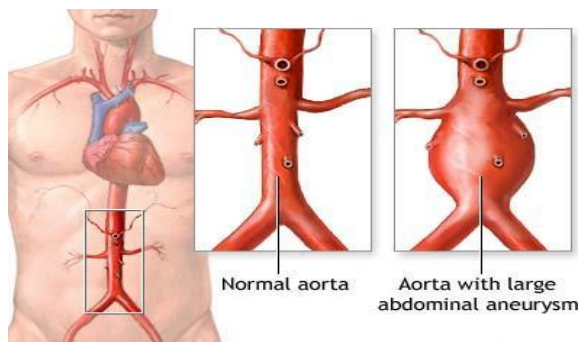


Patient information sheet

What is an Abdominal Aortic Aneurysm (AAA)?

An aneurysm is a bulge or swelling of the part of the aorta as it travels down through the abdomen. This occurs because of the weakness of the wall of the artery. The artery distends as the wall gets weaker and weaker until it may give way. The aorta is the main blood vessel in the body and its rupture may cause serious internal bleeding which could be fatal. It is to prevent rupture of the aneurysm that the doctors advise repairing the aneurysm when it reaches certain size (5.5 cm in diameter).

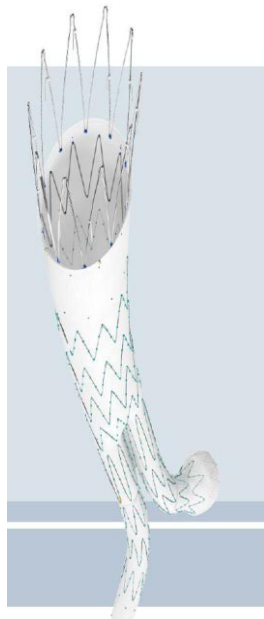


The standard operation for aortic aneurysm involves making a big cut in the abdomen, opening the aneurysm and sewing in a tube shaped graft made from polyester to the normal aorta above and below the aneurysm. This operation is known as “open aneurysm repair” (OAR). The patients are closely observed and treated in the intensive care unit for 24 to 48 hours. Food and drinks are not allowed for 3 to four days because bowels are usually slow to function after the operation. It usually takes 10 to 12 days to recover enough to be able to go home in the care of the family.

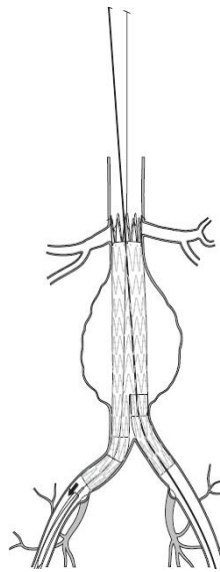


Open repair of the abdominal aortic aneurysm

More recently a new procedure has been devised which avoids making a big cut in the abdomen. Instead graft is mounted on to rigid metallic framework and threaded into the aneurysmal part of the aorta through the arteries in the groin. It is positioned such that it rests within the normal arteries above and below the aneurysm thus excluding the weak portion of the aorta from circulation. The groin arteries are approached through a small incision in each groin and the procedure is done under X-ray control. This procedure is called Endovascular aneurysm repair (EVAR). Most patients are able to return to the ward after the procedure and are able to eat and drink normally from the next day and are go home in two or three days.



Stent graft



Stent graft is being deployed within the aneurysm

How well the procedure works?

There is some risk of rupture of the aneurysm even after its repair. Risk is somewhat greater after EVAR as compared to open repair. In one study 5 out of 543 (0.9%) patients who had endovascular repair went on to burst their aneurysm in three years as compared to 1 out of 539 (0.2%) patients who had open repair. Seven similar types of studies involved a total of 3859 people who had the new procedure. Out of these 13 (0.3%) had a burst aneurysm following surgery. Based on these studies it appears that the risk of aneurysm bursting even after the new procedure is 0.3% to 0.9% in three years.

Some of the studies looked at the number of people who needed further surgery after the first operation. In one study, 85 out of 529 people (16%) who had the new procedure needed further surgery as compared to 36 out of 519 (7%) who had the open repair.

Risks and Problems with the procedure

Information from three studies shows that 12 out of 759 patients (2%) died within thirty days of having stent-graft procedure as compared to 33 out of 759 patients (5%) who had the open repair.

Most common problem with the stent graft procedure is the blood leaking back into the aneurysm either from around the site where it fixes or through the branches arising from the aneurysm itself. There are ways of dealing with such leaks and the doctor should be able to provide more information on this.

The other reported problem which may occur in the years after the procedure is migration of the stent graft from its original position or the stent may break. From earlier studies the risk of this happening seems to be around 1%. However, the newer stents are much more stable and there are now fewer problems during and after the procedure.

It is therefore recommended that the people who have the new procedures remain under observation for the rest of their life. Regular X-ray and ultrasound examinations of the abdomen should be able to detect any problems with the stent graft at an early stage.

On the other hand, the risk of heart attack, lung complications such as pneumonia requiring artificial breathing and bleeding requiring blood transfusion is much less common after the new procedure compared to open repair.

Main disadvantages of the EVAR

- The procedure is relatively new therefore long-term effects are uncertain
- Continued risk of rupture in the range of 0.3% per year
- Problems with stent graft like endoleak, migration and breaks which may require further interventions
- Lifelong, yearly x-ray and ultrasound examination to detect any problems with the graft

Main advantages of the EVAR

- Significant reduction in the risk of dying within thirty days of the repair of the aneurysm
- Lower risk of blood loss and heart or lung complications
- No pain or discomfort associated with big abdominal cut
- No restriction on eating and drinking after the procedure
- Early recovery and return to normal activities

National institute of health and clinical excellence (NICE) has supported the procedure based on current evidence on safety and short-term efficacy. It has also recommended that we collect your details (not including your name). These details will be held confidentially in an electronic database. This information will be used only to see how safe the procedure is and how well it works. If you do not agree to have your details entered into electronic database, you will still be allowed to have the procedure.

Further information

You have a right to be fully informed and to share in decision making about the treatment you receive. You may want to discuss this guidance with the doctors and nurses looking after you.

If you have access to internet you can obtain further information on aneurysms on

www.nhsdirect.nhs.uk

Or you can telephone NHS Direct on 0845 46 47

The NICE website (www.nice.org.uk) has further information about NICE, Interventional Procedures Programmes and the full guidance on stent-graft placement in abdominal aortic aneurysms that has been issued to NHS. The evidence that NICE considered developing this guidance is also available on the website.