



What is an Abdominal Aortic Aneurysm?

This leaflet tells you about the condition known as **Abdominal Aortic Aneurysm (AAA)**. It explains what is involved, and the common complications associated with this condition. It is not meant to replace discussion between you and your doctor, but as a guide to be used in connection to what is discussed with your doctor.

What is the aorta?

The aorta is the largest artery (blood vessel) in the body. It is responsible for carrying all the blood that is pumped out of your heart and distributes it, via its many branches, to all the organs of your body. The aorta travels upwards from your heart and then turns downwards, travelling through your chest (the thoracic aorta) and into your abdomen (the abdominal aorta).

The normal diameter of the abdominal aorta is around 2 to 3cm (about one inch).

What is an Abdominal Aortic Aneurysm?

In some people as they get older, the lining of the artery wall can become weak. As it slowly becomes weaker it gradually expands and balloons out forming what is called an abdominal aortic aneurysm. This is similar to a weak spot on a worn out tyre.

A small AAA is not serious. However, it is important to monitor the size of the aneurysm in case it gets bigger and develops into a large AAA. A large aneurysm can be very serious because as the lining of the artery wall expands, it becomes weaker and could burst, causing internal bleeding. Around 85 out of 100 people die when an aneurysm bursts. However, most aneurysms enlarge slowly so you may never develop a large AAA that needs treatment.

How is an Abdominal Aortic Aneurysm detected?

Some patients have the aneurysm diagnosed coincidentally when they are examined for another problem, or if they have a scan for a different reason (kidney trouble, or gallstones, for example). Occasionally, the patient may become aware of a feeling of pulsation in the abdomen. As the aneurysm stretches it can also cause pain in the back or abdomen. If an aneurysm is suspected, your GP will refer you to a specialist Vascular Surgeon for advice; either your GP or specialist will order an ultrasound scan. Ultrasound scanning of the abdomen is a painless outpatient test that only takes a few minutes to do. It is used to decide whether an aneurysm is present and to measure its exact size.

Who is at risk?

Aortic aneurysms are most common after 60 years of age. Males are five times more likely than females to be affected. Approximately 5% of men over age 60 develop an abdominal aortic aneurysm. Men with other arterial disease (angina, hardening of the arteries or high blood pressure) are also at risk. Abdominal aortic aneurysms can run in families. People with a first-degree relative (mother, father, sibling) having an abdominal aortic aneurysm have a higher risk of developing an AAA than the general population. They also tend to develop the aneurysm at a younger age.

Information for Patients

Other **Infrequent** causes of an AAA are the following:

- Genetic disease such Marfan syndrome,
- Post-trauma: After physical trauma to the aorta
- Arteritis: Inflammation of blood vessels as occurs in Takayasu disease, giant cell arteritis.
- Bacterial infection

How is an aneurysm diagnosed?

An ultrasound examination of the abdomen is a simple and quick way of finding an aneurysm. This is a painless procedure involving a lubricated probe pressing gently on your tummy (over the aneurysm). The scan will tell you if there is an aneurysm present and how large it is. Occasionally a CT or MRI scan is required if more detailed information is needed. The most important feature of the scan is the maximum diameter of the aorta, which is usually about 2 cm across in adults. An aneurysm is said to be present if the artery is 3cm or greater in diameter.

Do I need surgery?

Not all aneurysms need an operation. The risk of rupture and therefore the need for repair depends on the size of the aneurysm. If the aneurysm is large (more than 5.5cms in diameter) it is probably safer to have an operation to repair it than to leave it alone. This protects the aorta from rupture.

Smaller aneurysms are usually kept under surveillance by repeat ultra sound scanning at 6 to 12 monthly interval. This allows us to monitor the rate at which the aneurysm is expanding and intervene if they enlarge quickly or reach 5.5cm. Average enlargement is about 0.5cm per year. Your Vascular Surgeon will give you a clear explanation if they think it likely that your AAA will expand to a size requiring surgery in the future.

How is Abdominal Aortic Aneurysms Repaired?

The goal of surgical treatment of an AAA is to prevent aneurysm rupture. Traditionally, repair of aortic aneurysms has been surgical 'Open Repair' this involves an incision (cut) in the abdomen and replacement of the aneurysm with a fabric tube called Dacron. This will last up to 20 years, or more. If the aneurysm extends into the pelvis, then a graft designed like a pair of trousers is used and may extend to the groins in some patients. After a successful operation the risk of later complications is very low.

A less invasive procedure for aortic aneurysms is EndoVascular repair (EVAR). This minimally invasive procedure allows the stent to be guided within the blood vessel itself to the site of the aneurysm without the need to cut open the abdomen. Though the risk of the procedure is lower and the post-operative recovery is shorter than an open repair, there is a need for further follow-up surveillance after the operation.

Is surgery successful?

If aneurysms are repaired before they rupture, there is a high overall chance of successful repair and a return to normal life expectancy. However you should discuss the risks of surgery in your particular case with your surgeon.

How can I help myself?

There is nothing you can do to reduce the size of your aneurysm. However, improving your general health by taking regular exercise, losing weight and stopping smoking is helpful even if you do not need an operation at present.

Information for Patients

Medications

Your doctor may recommend you take a medication to lower your cholesterol (statin) and / or a drug to help thin your blood (junior Aspirin or Clopidogrel) these medications work by taking the nasty fats out of your blood and by slightly thinning your blood. This is thought to help the blood flow through your arteries more easily and reduce the growth rate of you AAA and also reduce your risk of heart attacks and stroke. Statin medication is also thought to have an anti-inflammatory action which reduces the risk of your aneurysm rupturing.

If you have high blood pressure it is important that this is well controlled and you may need to take medication to help lower it.

If you have diabetes it is essential to keep it under control and if necessary you may require medication.

Symptoms of leaking / ruptured Abdominal Aortic Aneurysm

An AAA does not cause symptoms on a day to day basis. However, if you experience any of the following symptoms you may have a leaking / ruptured AAA causing severe internal bleeding:

- Deep boring pain in the lower back or abdomen – or both
- You may have a lump in your abdomen that expands and contracts causing excruciating pain
- You may feel clammy, cold and look pale

It is essential that you dial **999** for the emergency services and inform them that you have an AAA telling them your symptoms.

Rupture of an AAA is often fatal unless emergency surgery to repair it is carried out. However, this risk is very low (1%) for AAA under 5.5cm.

Contact us:

If you would like further information about your AAA you can contact us and speak to a Vascular Nurse Specialist.

They can be contacted on **Vascular Helpline no; 0121 424 2879**. Please note that this is an answer machine service and one of the team will call you back as soon as possible. Alternatively, you can phone the main hospital switchboard on 0121 424 2000 and ask to speak to your consultant's secretary.

Additional sources of information:

This leaflet is based on one designed by The Vascular Surgical Society of Great Britain and Ireland, but has been modified (with permission) by us to reflect local policies. The Vascular Surgical Society of Great Britain and Ireland web site (<http://www.vssgbi.org>) has further information on vascular surgical procedures.

<http://www.circulationfoundation.org.uk/> The Circulation Foundation provides information on all common vascular diseases and their treatments. Their aim is to provide an educational service and is not designed to offer specific medical advice.

Contact NHS Direct Telephone: 0845 4647 or visit them on the Internet <http://nhsdirect.nhs.uk>

Information for Patients

Accessibility

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