

Your Healthy Aorta

*“Love the heart of
your Aorta”*



Aorta^{your4 facts}

- 1) Know your diagnosis
- 2) Know your numbers
- 3) Know your choices
- 4) Know your treatment

The Aorta:

The aorta is the main blood vessel from the heart channelling blood to all the organs of the body. It has 5 segments which include: a) the aortic root, b) the ascending aorta, c) the aortic arch, d) the descending thoracic aorta and e) the abdominal aorta. Blood is pumped at 5 litres/min through this system at rest, increasing up to 25 litres/min in exercise. Blood pressure may double during exercise and exceed 300mmHg. As such the artery is exposed to the extremes of high blood flow, high blood pressure and fluctuations in blood borne metabolites, toxins and infections. The aorta is therefore vulnerable to life threatening disease. It is important to know about your aorta and look after your aorta.

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1) *Know your diagnosis*

Diseases of the aorta often result in an aneurysm or swelling of the aorta. Aneurysms increase the risk of tear, dissection or rupture depending on the size, following which patients may need emergency surgery. Planned surgery may be required to prevent an emergency life threatening presentation. Commonest diseases underlying aneurysms include: familial predisposition, connective tissue disorders (Marfan Syndrome, Ehlers Danlos Syndrome, Loeys-Dietz Syndrome and Turners Syndrome), Bicuspid Aortic Valve Syndrome as well as infection, inflammation and trauma. Other factors such as diabetes hypercholesterolemia, hypertension are important.

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2) *Know your numbers*

During your follow-up appointments and scans there will be a range of numbers which become important to you and indicate when you might need surgery. The commonest trigger for surgery on an aortic aneurysm is a diameter of 5.5cm. Factors that may reduce the threshold (5.0cm) include Bicuspid Aortic Valve, genetic predisposition or connective tissue disorder. The trigger may be lowered (4.0cm) if you require heart surgery on other diseases such as valves or coronary arteries. Other factors that may lower the number include symptoms.

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3) *Know your choices*

Make the correct choices to help keep your aorta healthy. Be proactive with the management of your blood pressure and visit your general practitioner. Stop smoking and make healthy dietary choices. Check your cholesterol and get treatment if required. Make sure that if you have diabetes, your glucose levels are controlled. While you need to stay active you should avoid doing things that raise your blood pressure such as weight lifting, moving heavy objects or pushing your self to exhaustion. Day to day activities should not pose a risk to you. Exercise is important.

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4) *Know your treatments*

Medical drug treatments are very important in protecting the aneurysm and all patients should be on a B-blocker if possible. Further drugs may be required to control blood pressure. In the event of you requiring intervention this will either be surgical repair, a stent within the vessel or a combination of both. Operations often take many hours with hospital recovery over weeks. Recovery at home may take months. Your surgeons will discuss the risks and benefits of different treatments with you in Clinic.

Thoracic Aortic Aneurysm Service. Liverpool Heart and Chest, www.lhch.nhs.uk