

South West Cardiothoracic Department

Having your Aortic Surgery

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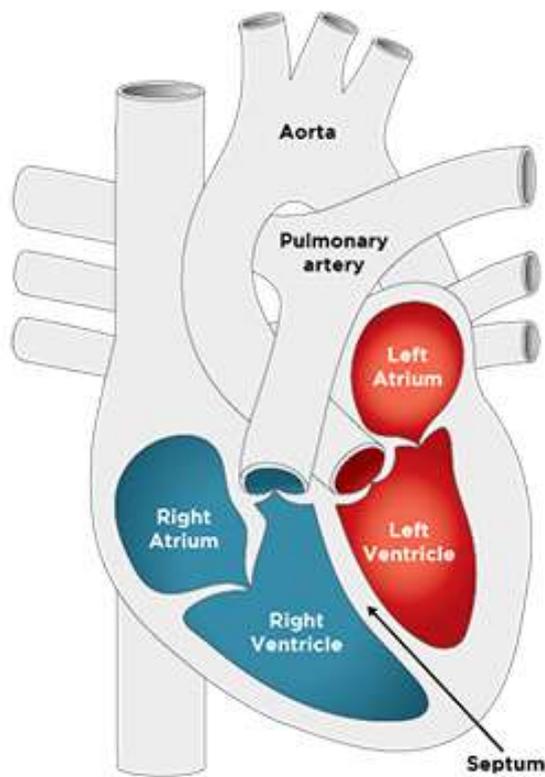
This leaflet contains information to help prepare patients coming to University Hospitals Plymouth NHS Trust for Aortic surgery. You will find information about the heart, diseases of the aorta, your journey in hospital with us and follow up care.

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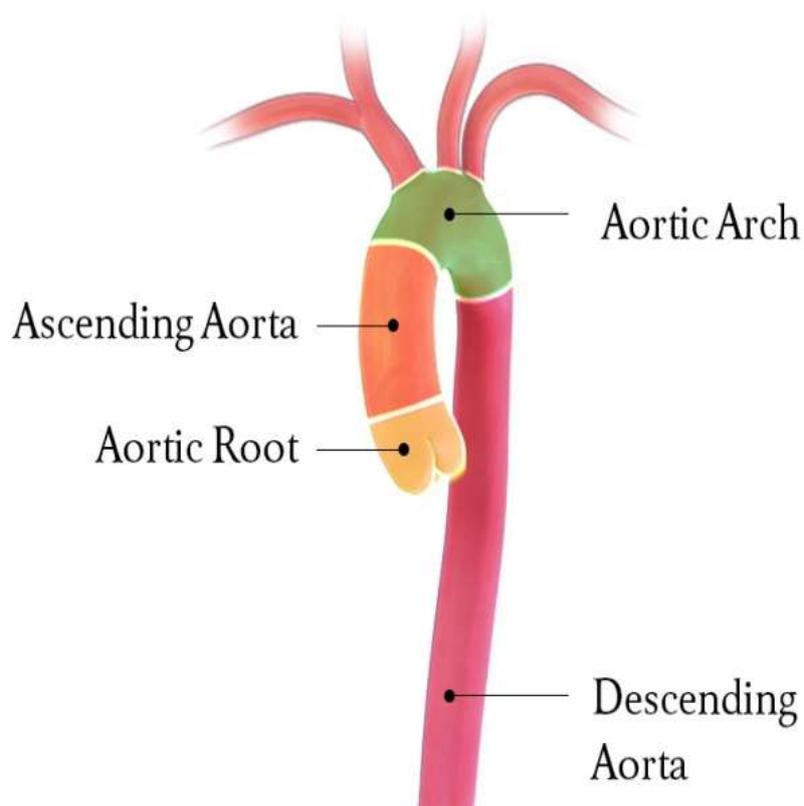
♥ The heart ♥

The heart is a muscular pump. The right side of the heart receives deoxygenated blood from the body and pumps it to the lungs via the pulmonary artery. The left side of the heart receives oxygenated blood back from the lungs and pumps it out to the rest of the body via the aorta.



♥ The aorta ♥

The aorta is the main artery that leaves the heart. The first part is called the aortic root where the aorta leaves the left ventricle; this is followed by the ascending aorta. The aortic arch, where the head and neck vessels branch off, followed by the descending aorta. The aorta distributes blood from your heart to the body. In most adults this amounts to around 5 litres of blood every minute!



♥ Aortic disease ♥

Aortic aneurysm

Aortic aneurysm is an enlargement or dilation of the aorta. This can occur anywhere along the aorta (some examples below). If left untreated this can cause an aortic dissection. This is where the blood flows through a tear in the inner lining of the wall into the middle layer. From there it can rupture or cause critical reductions in blood flow to vital organs. You may experience a sudden severe sharp pain in the chest, back or abdomen. This may require emergency surgery. If you experience these symptoms call 999.



Infection, inflammation and trauma are other common diseases that can cause an aneurysm, but the commonest causes are hypertension (high blood pressure) and atherosclerosis, usually associated with smoking.

Connective tissue disorders

Some connective tissue disorders involve the aorta and can lead to early development of an aneurysm. These can be genetic (some examples below)

- ♥ Marfan syndrome
- ♥ Ehlers-Danlos syndrome
- ♥ Loeys-Dietz syndrome

Family members may need to be screened by an echocardiogram or a CT scan. Patients with a connective tissue disorder will require monitoring and timely surgical treatment.

♥ Aneurysm advice ♥

It is particularly important that you care for your aorta if you have an aortic aneurysm.

Try not to put yourself under exertion as this will raise your blood pressure and put the aorta under greater strain.

Try to **avoid** things such as

- ♥ Strenuous exercise that would raise your blood pressure or put you under strain
- ♥ Heavy lifting and weight lifting

But **make sure** you are

- ♥ Getting your blood pressure checked and visit your GP regularly to keep it within a healthy range
- ♥ Enjoy a healthy balanced diet
- ♥ Quit smoking
- ♥ Take gentle exercise
- ♥ Have regular cholesterol checks at your GP practice to maintain a healthy level

♥ Types of aortic surgery ♥

Aortic root replacement

Replacement of ascending aorta

Frozen Elephant Trunk (FET) procedure

These require open surgical treatment where you will have a scar down the middle of your chest and a cut through your breastbone. On occasion your aortic valve may need to be replaced at the same time and some patients will also require bypass grafts. FET is an open procedure for aortic disease involving the aortic arch, head and neck vessels and descending aorta.

Thoracic endovascular aortic repair (TEVAR)

This is a less invasive procedure that inserts a stent into the descending aorta to line the aneurysmal aorta via a small cut in your groin.

Circulatory arrest

This is sometimes necessary in cases where the aortic aneurysm extends to the aortic arch. This is complex surgery involving a short period with no circulation of blood around the body. This is possible at low temperature and with additional connections from the bypass circuit to maintain brain blood flow. After removing the aneurysm and replacing the damaged area with an aortic graft, the circulation is re-started.

♥ Journey in hospital ♥

Pre op assessment

You will attend a pre op assessment appointment with a cardiothoracic surgical care practitioner up to 3 months prior to your surgery. At this appointment you will undergo routine tests. These are blood tests, chest x-ray, ECG, and swabs for MRSA & MSSA. Prior to this appointment you will have had a CT scan, echocardiogram, and an angiogram.

Admission to hospital

You will have a COVID 19 swab organised for you a day or two before you come to the hospital. You will be admitted to hospital the day before your operation. The surgical and anaesthetic team will come to speak to you. You will be advised when to stay nil by mouth. Sometimes you may be asked to go home and come back in the early morning to the ward.

If you or a relative would like to stay nearer Derriford hospital the Hearts Together hospital hotel provides accommodation for patients, carers and relatives. It is run by the local “Hearts Together” charity.

Hearts Together also provide support and counselling for hospital hotel guests and relatives.

Having your aortic surgery

Depending on the type of aortic surgery the operation will take between 4-6 hours.

During the operation you will be connected to a machine (cardiopulmonary bypass machine) that takes over the role of your heart and lungs while the surgery on your aorta is carried out.

Post op

Following your surgery, you will be taken to the cardiac intensive care unit. You will have a machine (ventilator) that does your breathing for you until the team feels that you are ready to be woken up. When you wake up you will have an oxygen mask on your face. Following intensive care you will go to the high dependency unit, and, when ready, you will return to the ward. Patients generally stay in hospital between 6-12 days following planned aortic surgery.

Chest drains

After your surgery you will have 2 or 3 chest drains at the bottom of your chest. This allows any blood or fluid that collects around the heart to drain out. A nurse will remove these after a couple of days following the operation.

Pacing wires

Temporary pacing wires will be placed to control the rate of your heart after surgery. The nurse will remove these a few days after your surgery.

Pain relief

After your operation you will be given regular pain relief via a drip. You will also be given a Patient Controlled Analgesia (PCA) which you are able to manage yourself. You will be given a button to press which administers a measured dose of pain relief. It will then lock out for a couple of minutes before you are able to press it again. After a couple of days you will be given tablets to manage your pain relief.

Physiotherapy

The physiotherapists will regularly see you post op. They will do breathing exercises, coughing exercises and get you walking around the ward. Your breastbone will have been cut in order for the surgeon to perform the operation. It is important that you follow the sternal precautions given to you after your operation to allow the bone to heal well. This involves avoiding heaving lifting and strenuous activity for 3 months after surgery. You will be given more information following your surgery.

Wound care

It is important to keep wounds clean and prevent infection. Wash with a mild soap and ensure your skin is fully rinsed off with water to remove any soap or shampoo residue. Pat rather than rub your wounds dry after showering. Don't use any powders.

Going home

We advise that you have someone at home with you for the first week or two following your discharge from hospital in case you feel unwell.

Continue the level of exercise you were doing on the ward and build up gradually.

Driving

You are advised not to drive for at least 6 weeks following your operation.

♥ Rehabilitation ♥

You may be asked to go on a cardiac rehabilitation programme. This includes exercise sessions and advice on lifestyle, such as healthy eating and education on how to look after your heart.

♥ Follow up care ♥

The surgical team will see you around 6-12 weeks following your operation. You may be asked to attend for further follow-up scans in the months and years following your operation.

♥ Important contact numbers ♥

Surgical care practitioner's office:	01752 439181
Secretary to Mr Kuo:	01752 439253
Secretary to Mr Unsworth-White:	01752 439253
Secretary to Mr Nguyen:	01752 439253
Secretary to Mr Asopa:	01752 439252
Clearbrook ward:	01752 439143
Braunton ward:	01752 431740
Torrington Intensive Care Unit:	01752 431782
Torrington High Dependency Unit:	01752 431780
Hearts together:	01752 315900

♥ Further information ♥

More information can be found online

www.bhf.org.uk

www.heartstogether.org.uk

www.thinkaorta.org

www.aorticdissectionawareness.org

♥ Your notes ♥



**This leaflet is available in large print
and other formats and languages.
Contact: Administrator
Tel: 01752 439181**

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University Hospitals Plymouth NHS Trust operates a tobacco-free policy, although the use of vapes is permissible, please remember to vape respectfully and to stay within the vape zones. If you require support to give up smoking contact: Plymouth Advice Service 01752 314040 or NHS Quit Smoking Line 0800 1690169



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