

Patient information

Advice when having Aortic Surgery



Table of Contents

Introduction to Barts Heart Centre	3
The aorta	
○ Where is the aorta and what does it do?	4
○ Diseases of the aorta	5
○ Treatments available: open surgery and endovascular treatments	7
(Your consultant will tell you which treatment you are having so you can pinpoint the specific area you need to read)	
Aortic Outpatient clinic	
○ Meeting the Consultant	21
○ Pre-admission Clinic	22
○ Tests	23
Waiting List	25
Hospital admission	
○ Anaesthesia	28
○ ICU and Ward	29
Recovering from an Acute Aortic Dissection	32
Following discharge	
○ Frequently Asked Questions	36
Follow-Up in the Aortic Outpatient clinic	37
Useful Contacts	38
Useful Information for Aortovascular patients	39
Acknowledgments	39

Introduction to Barts Heart Centre

On behalf of all the staff we would like to welcome you to the Aortovascular Surgery Unit at St Bartholomew's Hospital, London (also known as 'Barts')

Barts is the largest cardiac surgery centre in the United Kingdom. We have a team of consultant Cardiac surgeons subspecialised in Complex Aortic Surgery and a team of consultant vascular surgeons specialised in Complex Endovascular Procedures.

Your care before and after surgery will be in our purpose-built facilities in King George V building at St Bartholomew's Hospital. The pre assessment clinic will be in the East Wing on 2nd floor (Clinic 8). We have ten dedicated theatres, a 43-bed specialist cardiac intensive care unit, high dependency unit and two cardiac surgery wards.

Whilst you are under our care, we aim for your stay to be pleasant and rewarding and if this is not the case, please do not hesitate to inform a member of staff. We hope that you do not have any cause for complaint, and we welcome any suggestions you may have, through the 'I want great care' feedback questionnaire you will receive at the end of your stay. Details of the Patient Liaison Service (PALS) are also set out at the back of this booklet.

This information booklet has been written to help you and your family understand more about the operation that is planned for you. It will give you general information about what to expect before and after your Aortovascular operation at St Bartholomew's Hospital - Barts NHS Trust.

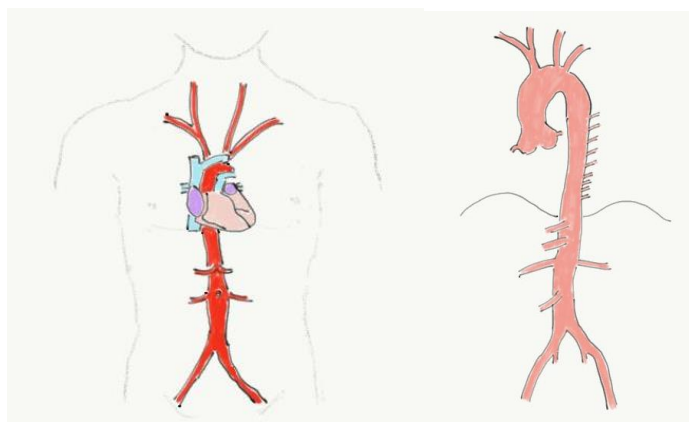
The first section of this booklet looks at you and your condition. The second section looks at planning and admission to the hospital for an operation on your aorta. We hope this booklet answers some of the questions or concerns you may have about your surgery. It is not intended to replace discussions with your medical and/or nursing staff. Always remember that everyone will respond to surgery very differently so do not compare yourself to the person in the next bed.

The Aorta

Where is the aorta and what does it do?

The aorta is the biggest artery in the body. It is a three-layer vessel that carries blood pumped by the left chamber of the heart into the rest of the body. It can be divided into five sections:

- **AORTIC ROOT**– arises from the left side of the heart; the aortic valve controls the blood flow out of the heart into the rest of the body. It gives branches - the left and right coronary arteries - that supply blood to the heart.
- **ASCENDING AORTA** – is a straight portion that sits behind the breastbone, between the root and the arch.
- **AORTIC ARCH** – it curves over the heart, near the collarbone level and in front of the wind pipe. It connects the ascending aorta to the descending aorta and gives rise to three branches that provide blood to the head, neck, and arms.
- **DESCENDING THORACIC AORTA** – is the continuation of the aortic arch at the back of the chest that extends all the way to the diaphragm (the breathing muscle between the chest and the abdomen). It has several small branches that supply blood to the spine, ribs, and other organs within the chest.
- **ABDOMINAL AORTA** – starts at the level of the diaphragm. It branches into multiple arteries that deliver blood to major organs in the belly as well as the spinal cord. It terminates at the level of the belly button and splits into left and right common iliac arteries that provide blood to the pelvic area and the legs.



*Diagram of the aorta in relation with the heart and the rest of the body.
The main branches arising from the aorta have been illustration.*

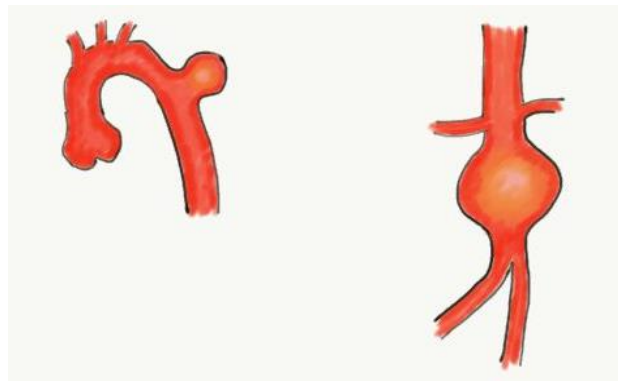
Diseases of the aorta

Multiple factors such as high blood pressure (hypertension), hardening and fat accumulation of the arteries (atherosclerosis) and smoking may contribute to diseases to the aorta. There are also families predisposed to diseases of the aorta (patients with connective tissue disorders or with another genetic predisposition). These conditions combined with age, diet and sedentary lifestyle may lead to an enlarged aorta (aneurysm) or a tear in the inner layer (aortic dissection).

Aortic Aneurysms

An aneurysm is an abnormal swelling or bulging of the aorta that happens when the walls of the vessel weaken and lose its elasticity due to some of the contributing factors mentioned above.

Aortic aneurysms can occur anywhere in the aorta and sometimes affect various locations. There are two different shapes: round (saccular) or tube-shaped (fusiform).



SACCULAR ANEURYSM

FUSIFORM ANEURYSM

Having an aortic aneurysm increases the chances of having an aortic dissection (see below) and if the aneurysm is not addressed in time, it may ultimately rupture. If you have been diagnosed with an aneurysm, you will be monitored closely, and you will be offered either open surgery or a stent when certain size is reached (different for each portion of the aorta) or if you are experiencing symptoms associated with the aneurysm.

If you have an aortic aneurysm, your lifestyle should not have to change dramatically. We advise maintaining a low blood pressure and no heavy lifting or strenuous exercise, otherwise you should continue to live and work as normal. If you

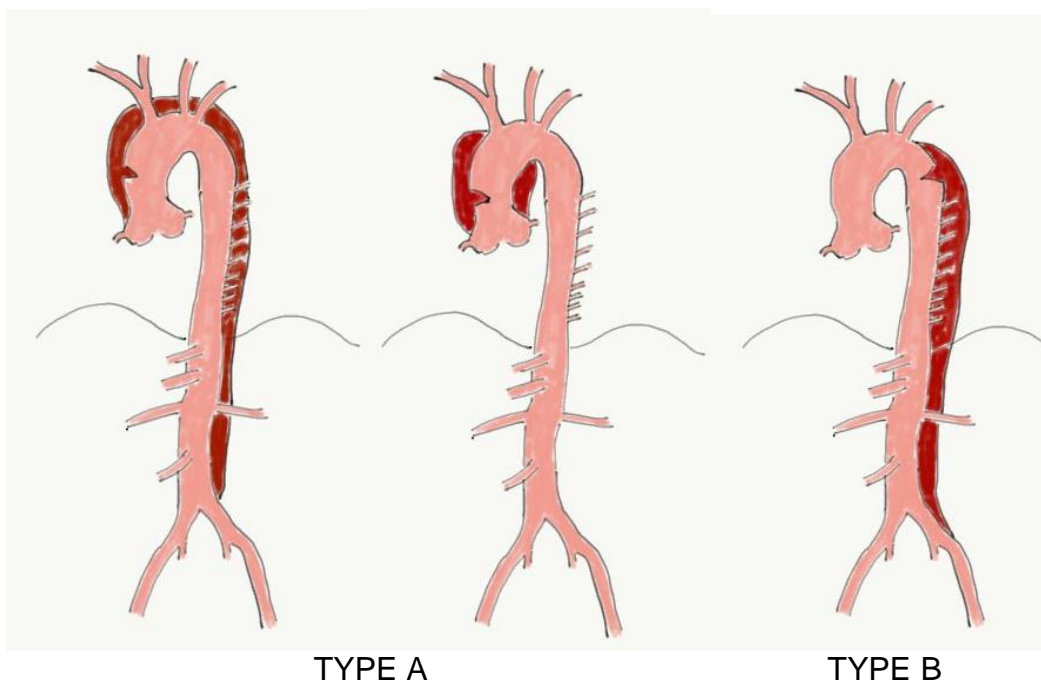
do have a job involving heavy manual work, please discuss with your consultant any concerns you might have.

Most people do not experience any symptoms with having an aortic aneurysm. If your heart valve function has started to deteriorate, you may start to experience shortness of breath on exertion, walking uphill or climbing stairs, chest pain and peripheral oedema which is swelling around your ankles and lower legs. If you develop a hoarse voice and/or difficulty in swallowing, you should speak to your GP or your consultant when attending clinic. If you have any severe chest or back pain, then you should call 999 and be taken to your nearest Accident & Emergency Department (A&E) for assessment.

Aortic Dissection

An aortic dissection is a life-threatening condition that affects the aorta. It occurs when the innermost layer (intima) of the aortic wall tears and causes blood to leak into the other layers (media and adventitia) of the vessel eventually creating two separate channels (true and false lumen) for the blood to circulate. This can create problems of blood supply to vital organs depending on the segment of the aorta affected and also leads to high risk of aortic rupture. Depending on the location of the tear, the aortic dissection is classified as either:

- **Type A** where the affected section is the root, ascending aorta, or aortic arch. This condition is life-threatening and emergency surgery should be offered as soon as possible.
- **Type B** which affects the descending thoracic aorta and the abdominal aorta. This condition is usually managed with tight control of the blood pressure in an ITU environment, but a stent or early surgery might be offered in certain cases.



Treatments available for aortovascular conditions

Broadly speaking, the aorta can be approached in two different ways: by open surgery (through the front or the side of the chest and sometimes the belly) and by endovascular surgery (consisting of placing stents inside the aorta, generally by a cut in the groins).

Your consultant will have explained which procedure you are having, depending on the condition you have, the location of the problem within the aorta and other factors such as medical problems you might have and your general fitness level.

Sometimes the consultant will place you on a “Watch & Wait” or surveillance list where you will have repeat scans every 1-3 years so your aorta can be monitored. This will be explained to you by the consultant if this is the case.

What Are The Open Surgical Options Available?

These surgical treatments are performed under general anaesthesia, with insertion of several lines in your wrist and side of the neck for administration of medication and monitoring during the operation and few days after surgery. You will also have a urinary catheter that will drain urine from your bladder.

Note that due to the extent of your aortic disease, you might need a combination of various procedures within the aorta, performed during the same operation or occasionally at two different times (two-stage operation). Your consultant surgeon will have provided information about the extent of your aortic disease and the procedure(s) you are having.

Aortic Valve Replacement

This would be offered to you if you have a leaking (regurgitating) or narrowed (stenotic) aortic valve.

The aortic valve is replaced with an artificial valve prosthesis. There are two main groups: 1) Mechanical, made from carbon, titanium, nickel, or cobalt alloy or 2) Biological (Tissue), made from animal tissue, usually cows or pigs.

Both options will get rid of your symptoms, but they have specific advantages and disadvantages. Mechanical valves are generally intended for younger patients due to their long-lasting durability, usually outliving the patient. However, the downside of having a mechanical valve is having to commit to lifelong blood-thinning drug therapy (Warfarin) which increases the chances of bruising and excessively bleeding. Tissue valves on the other hand have a limited durability, which could mean having another operation to replace the valve in about 10-15 years depending on multiple contributing factors such as age, diet, and lifestyle. Tissue valves are less likely to form clots, so blood thinners are not a necessity.

The operation is done from the front of the chest by making a cut through the breastbone. Special pipes are used to connect the heart to the bypass-machine that will take over the function of heart and lungs during the operation. A concentrated medication will be delivered into the heart to stop the heart from beating. This allows the surgeons to open the aorta and operate without blood obstructing their view. The damaged aortic valve is removed and replaced by sewing in the artificial valve with non-dissolvable stitches. The aorta will be closed and the circulation to the heart restarted.

After disconnecting the bypass machine and removing the pipes, temporary pacing wires are attached to the surface of the heart in case the heart needs support to beat for the first few days. At least a couple of chest drains are also placed to monitor and drain the expected blood oozing from the surgical site. Both pacing wires and drains will be removed in the days following the surgery.

The breastbone is repaired using steel wires that will remain there permanently. Then the muscles and skin are closed using re-absorbable stitches.

Aortic Root Replacement

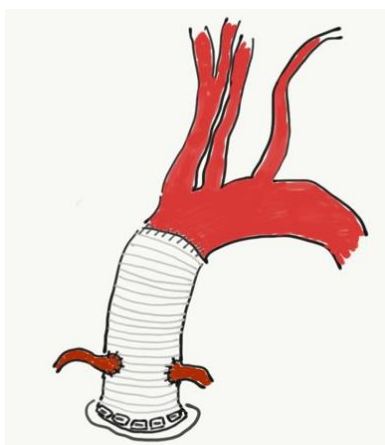
The aortic root is the junction between the aorta and the heart that includes the aortic valve and the origin of the coronary arteries (coronary ostia). Replacement of the aortic root is intended for patients who have a faulty aortic valve as well as an enlarged segment of the aorta close to the aortic valve.

The operation is done from the front of the chest by making a cut through the breastbone. Special pipes are used to connect the heart to the bypass-machine that will take over the function from the heart and lungs during the operation. A concentrated medication will be delivered into the heart to stop the heart from beating. This allows the surgeons to open the aorta and operate without blood obstructing their view.

The aorta is opened, and the aortic valve and the first portion of the aorta (the root) are cut out, preserving the origin of the left and right coronary arteries. A manufactured woven graft with either a mechanical or tissue aortic valve (depending on your preference) is sewn in place. Following this, the origin of the coronary arteries will be re-attached into the graft, completing the new aortic root.

After disconnecting the bypass machine and removing the pipes, temporary pacing wires are attached to the surface of the heart in case the heart needs support to beat faster for the first few days. At least a couple of chest drains are also placed to monitor and drain the expected blood oozing from the surgical site. Both pacing wires and drains will be removed in the following days following the surgery.

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Aortic root replacement

Valve Sparing Aortic Root Replacement

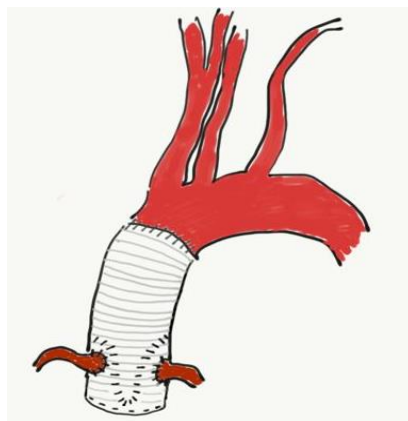
Just as the name indicates, this procedure replaces the aortic root while preserving the patient's own aortic valve. This is indicated for patients with dilated aorta where the aortic valve is not diseased, and it is expected to function normally for years after surgery.

The operation is done from the front of the chest by making a cut through the breastbone. Special pipes are used to connect the heart to the bypass-machine that will take over the function of the heart and lungs during the operation. A concentrated medication will be delivered into the heart to stop the heart from beating. This allows the surgeons to open the aorta and operate without blood obstructing their view.

Like in the aortic root replacement, the aorta is opened, and the diseased aortic segment is cut out while preserving the own valve as well as the origin of the left and right coronary arteries. An artificial woven graft is cut to shape to accommodate the natural shape of the patient's normal valve. After the tubular graft is sewn in place, the origin of the coronary arteries will be re-attached to the graft. Before leaving theatre, several tests are carried out to ensure the valve is working perfectly. In cases where there is a doubt about the valve competency and long-term durability, a replacement with a valve prosthesis might be indicated and carried out at the same time.

After disconnecting the bypass machine and removing the pipes, temporary pacing wires are attached to the surface of the heart in case the heart needs support to beat faster for the first few days. At least a couple of chest drains are also placed to monitor and drain the expected blood oozing from the surgical site. Both pacing wires and drains will be removed in the days following the surgery.

The breastbone is repaired using steel wires that will remain there permanently. Then the muscles and skin are closed using re-absorbable stitches.



Valve sparing root replacement

Ascending Aortic Replacement

This is indicated for patients with an enlarged or torn ascending aorta, where the disease is limited to this aortic segment (the aortic root and the aortic valve are not affected).

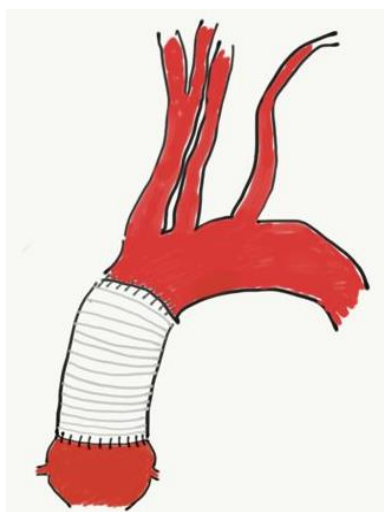
The operation is done from the front of the chest by making a cut through the breastbone. Special pipes are used to connect the heart to the bypass-machine that will take over the function from the heart and lungs during the operation. A concentrated medication will be delivered into the heart to stop the heart from beating. This allows the surgeons to open the aorta and operate without blood obstructing their view.

The unhealthy aorta is cut out, trimmed to shape, and replaced with the appropriately size woven graft that is sewn in place.

In certain occasions, when the aorta is quite large, it might be necessary to completely stop the circulation during part of the operation (known as circulatory arrest). In those cases, the body temperature is dropped down to 22-26 degrees and the bypass machine is also used to divert blood to the brain during this period.

After disconnecting the bypass machine and removing the pipes, temporary pacing wires are attached to the surface of the heart in case the heart needs support to beat faster for the first few days. At least a couple of chest drains are also placed to monitor and drain the expected blood oozing from the surgical site. Both pacing wires and drains will be removed in the days following the surgery.

The breastbone is repaired using steel wires that will remain there permanently. Then the muscles and skin are closed using re-absorbable stitches.



Ascending aorta replacement

Aortic Arch Replacement

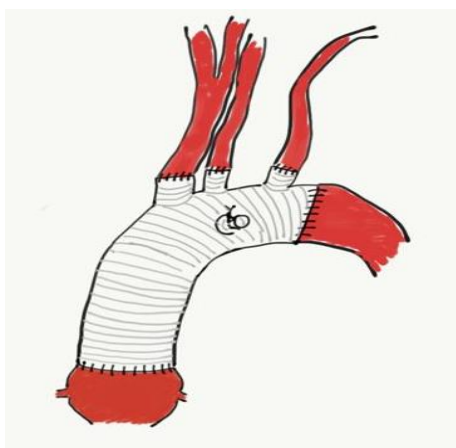
The aortic arch branches off into three main vessels that supply blood into the head, neck, and arms. Performing an open replacement on this segment of the aorta requires temporary cessation of blood flow into the brain and the body (known as circulatory arrest) to provide a bloodless field as the vessels are being trimmed and reconnected. During this period, the body temperature is dropped down to 22-26 degrees and the bypass machine is also used to divert blood to the brain.

For this type of procedure, the insertion pipes to connect the heart into the bypass-machine may vary depending on the extent of the disease. We might need to use the big vessels in the groin (femoral artery) or near the collar bone (subclavian artery) and in those circumstances, a separate cut will be placed in those areas.

Once the bypass is established and the target body temperature achieved, the aortic arch can be opened safely while protecting the heart and the brain. The diseased part of the aorta is removed and replaced with a manufactured woven graft that includes separate branches serving each of the head and neck vessels. Once the graft is sewn in place, the body is warmed back up to normal body temperature and the bypass is disconnected.

After disconnecting the bypass machine and removing the pipes, temporary pacing wires are attached to the surface of the heart in case the heart needs for the first few days. At least a couple of chest drains are also placed to monitor and drain the expected blood oozing from the surgical site. Both pacing wires and drains will be removed in the following days after the surgery.

The breastbone is repaired using steel wires that will remain there permanently. Then the muscles and skin are closed using re-absorbable sutures.



Aortic arch replacement

Frozen Elephant Trunk

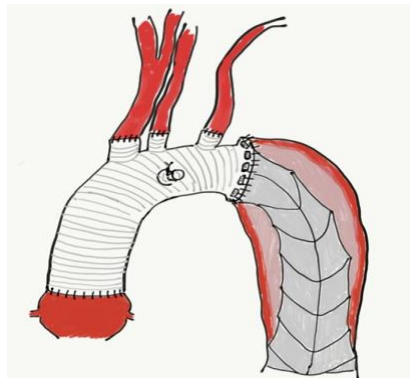
This is a two-in-one surgical procedure intended for treating extensive aortic diseases that affect both the arch and the proximal descending aorta. In the past, these conditions were addressed by two separate surgical procedures but now, since the introduction of this technique, we can treat them both in one setting.

The frozen elephant trunk graft has a woven part that replaces the arch and the head and neck vessels, connected to a stent (wire scaffolding) which is placed inside the descending aorta under direct vision.

The surgical setup is the same as that of an aortic arch replacement with the insertion of the pipes to connect the bypass machine depending on the extent of the disease (through the main aorta, groin (femoral artery), or near the collar bone (subclavian artery)). Once the bypass is established, the core body temperature is decreased to 22°C to 26°C to protect the brain and other vital organs. Once the circulation is stopped, the part of the diseased aorta is removed, and the frozen elephant trunk stent graft is inserted. The stent part is placed into the descending aorta, and the surgical graft is sewn into the remaining healthy aorta with re-attachment of the origin of the head and neck vessels. The blood circulation is restarted, and the body temperature is brought gradually back to normal.

After disconnecting the bypass machine and removing the pipes, temporary pacing wires are attached to the surface of the heart in case the heart needs support to beat faster for the first few days. At least a couple of chest drains are also placed to monitor and drain the expected blood oozing from the surgical site. Both pacing wires and drains will be removed in the days following surgery.

The breastbone is repaired using steel wires that will remain there permanently. Then the muscles and skin are closed using re-absorbable stitches.

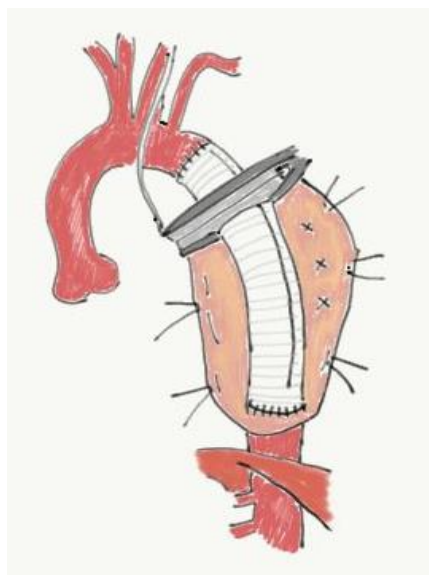


Arch and frozen elephant trunk

Descending Thoracic Aortic Replacement

This is indicated for patients with an enlarged segment of the descending thoracic aorta (on the back of the chest near the spine) or with a type B aortic dissection - which is a tear in the layers of the aorta occurring in the descending part of the thoracic aorta and extending sometimes to the aorta in the belly and to the arteries in the legs.

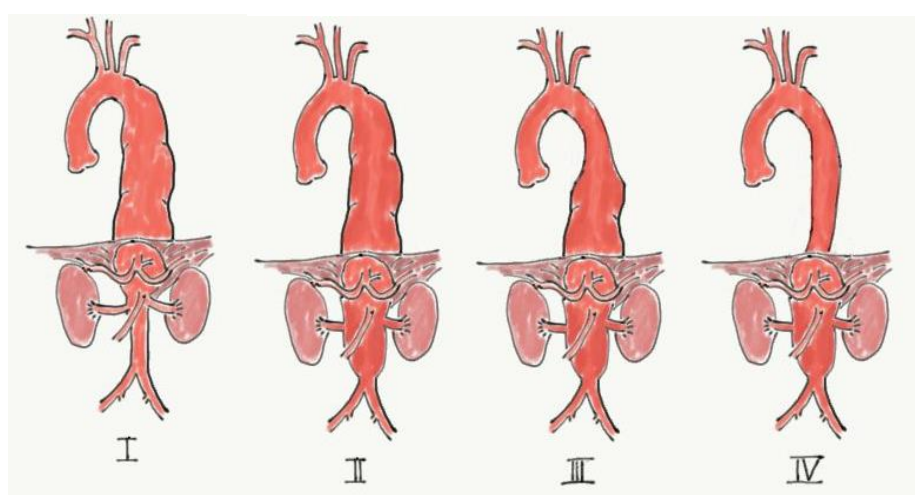
This operation is performed through the left side of the chest, making a cut following the direction of the ribs, from the middle of the left shoulder blade to the front of the rib cage. Involves replacing the aorta within the left chest, just above the diaphragm, with a manufactured woven graft. On some occasions, some of the arteries that provide blood to the spinal cord may need to be re-attached to this graft.



Descending thoracic aorta replacement

Thoracoabdominal Aortic Repair

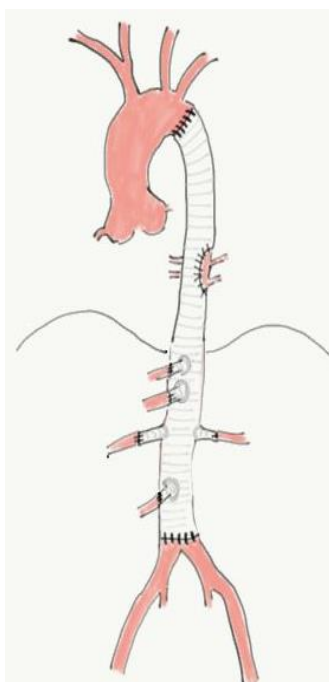
This is indicated for patients with an enlarged segment of their entire thoracoabdominal aorta (on the back of the chest near the spine travelling to the middle on the belly until it divides into the branches for the legs) or with a type B aortic dissection - which is a tear in the layers of the aorta occurring in the descending thoracic and abdominal aorta. The enlargement (aneurysm) or dissection can affect different parts of the thoracoabdominal aorta – whether you need a lesser or more extensive repair will depend on the part of the aorta affected.



Crawford classification for Thoracoabdominal Aortic diseases depending on the extension of the segment affected

This operation is performed via the left side of the chest and the abdomen, making a cut following the direction of the ribs from behind the middle of the left shoulder blade to the front of the rib cage and extending into the belly near the navel.

The procedure involves replacing the major length of the aorta within the left chest and the abdomen, with a manufactured branched woven graft, and re-attaching the origin of the branches to the liver, stomach, spleen, guts, and kidneys as well as some of the arteries for the spinal cord. On some occasions, the arteries to the legs may also need to be re-attached.



Thoracoabdominal aneurysm repair

Both [descending and thoracoabdominal aortic surgery](#) are considered complex aortic procedures and are carried out only in specialized centers. They do require special monitoring and organ protection techniques that differ from the procedures carried from the front of the chest with heart and lung bypass machine.

On top of the standard anaesthetic preparation and monitoring lines described earlier, patients undergoing repair of the thoracic +/- abdominal aorta will also have lines inserted on their right groin for faster delivery of medication and blood products, as well as a spinal drain on their back (like an epidural) to protect the spinal cord. Also, several pinned needles will be placed on the scalp, arms, and legs to check electric impulses and responses of the nerves in the upper and lower limbs while the procedure is ongoing. This monitors the spinal cord function during the operation.

Unlike open heart surgery where the patients will be on their back, these procedures require patients to be side lying with the left side of the body up. As well as the cut in the chest and the abdomen, a second cut to expose the vessels in the left groin is sometimes required.

Different muscular layers are carefully separated, and the chosen rib is divided to give the surgeons access to the aorta. Exposure in the abdomen is done by preserving the layers encasing the intestines from the rest of the abdominal cavity to keep them out of the operative field.

Once the full length of the aorta is exposed, the bypass machine is connected. This differs slightly from the usual machine used for heart surgery, as here the heart and the lungs are still working, and the bypass (called left heart bypass) is only helping in redirecting blood from the heart to the vital organs within the abdomen and lower body. The pipes will drain part of the heart blood flow and pump it back into the lower part of the body via another pipe that is inserted either through a big vessel in the left groin (femoral artery) or through a healthy lower portion of the aorta (infra-renal aorta).

During the operation, certain parts of the aorta will be excluded from the circulation at different times. The organs that receive blood from that segment will receive the blood from the left heart bypass machine.

The diseased aorta will be completely removed and replaced by a manufactured woven graft that will be sewn in place using non-dissolvable stitches.

Depending on the extent of your operation, the graft might have branches used to re-attach all important vessels such as the renal arteries that supply blood to the kidneys; the coeliac artery that supplies blood to the liver, stomach, pancreas and the spleen and the superior mesenteric artery that supplies blood to the bowels. Some of the arteries supplying blood to the spinal cord (intercostal arteries) may also be reimplanted using tubular grafts.

Once the repair is finished, at least two chest drains will be inserted to drain air and fluid accumulation in the left chest, giving both the heart and the lungs enough space to expand while the patient is not completely mobile. The wound above the ribcage is closed layer by layer using strong non-absorbable polyester sutures and the rest with dissolvable stitches. A waterproof dressing will be placed to protect the wound as it heals.

What Are The Endovascular Options Available?

Endovascular surgery is a minimally invasive (or keyhole) technique using stents to fix aneurysms and diseases of the blood vessels. A stent is a metal scaffold (usually

covered with polyester or other fabric) that is placed on the inside of the artery. This can be used to treat blood vessels in a variety of different places around the body.

The stents are 'landed' in areas of normal aorta, where a seal is created between the stent and the aorta, so that blood cannot flow around it. This creates a new lining in the artery, to prevent further damage to the wall of the aneurysms and protect you from rupture. Often, the area of blood vessel that needs to be treated is so large that multiple stents are placed in a single session. These are placed accurately using x-rays, and contrast (special dye) to confirm the position. We also use a new form of image guidance called 'fusion imaging' that allows us to place your stents more accurately with a lower dose of x-rays. After having stents placed, there are no restrictions on your activity, however if you need an MRI scan in the future, you may be asked what type of stent you have.

The stents can be placed in different locations within the aorta.

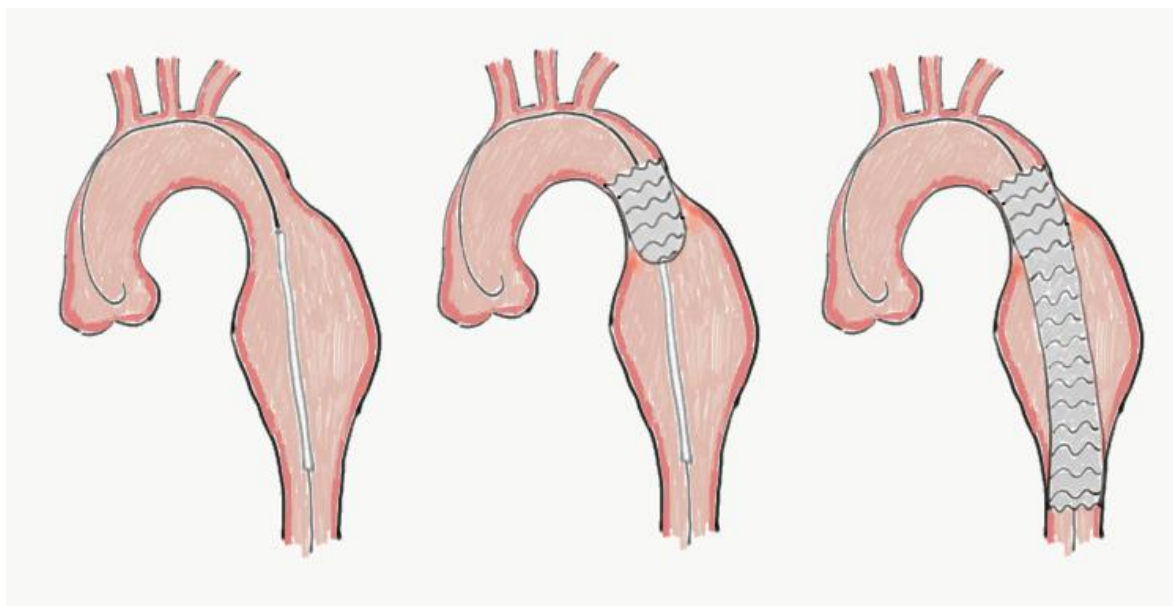
TEVAR (Thoracic Endovascular Aneurysm Repair)

TEVAR devices are used to treat aneurysms in the descending thoracic portion of the aorta. They are sometime used by themselves, and other times accompany a more complex repair. These are straight tube-stents that are available in a wide variety of sizes. Frequently they will be placed through a small incision in the left or right groin. A small puncture in the left or right arm may also be needed.

Occasionally, if the TEVAR is going to cover the subclavian artery (which provides blood flow to the left arm), a small incision is needed in the neck as well as an operation (bypass) to connect the subclavian artery to one of the carotids with a PTFE (polytetrafluoroethylene) graft which is another form of fabric.

If you have had a previous frozen elephant trunk repair, you may require a TEVAR to complete the procedure. These stents will join your frozen elephant trunk and land above the branched segment of the aorta. These procedures may be done in tandem (at the same time) or in a staged fashion, depending on your anatomy and the risk of spinal injury.

TEVAR procedures are reasonably simple, but still require general anaesthetic and require overnight observation in a monitored unit like a high dependency unit.



TEVAR

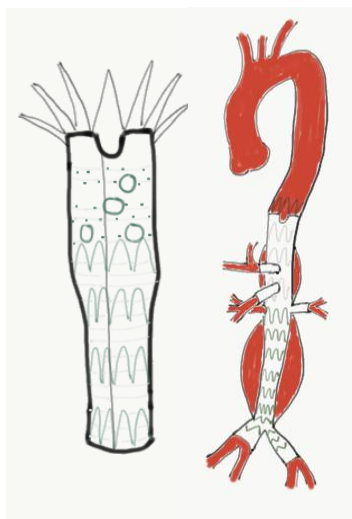
FEVAR or BEVAR (Fenestrated or Branched Endovascular Repair)

Fenestrated or branched repairs are slightly more complex endovascular repairs that are used to treat aneurysms that affect the aorta in the chest and/or belly. These aneurysms go through portions of the aorta with branches (such as arteries for the kidney and/or the guts) and therefore the stents need to be designed to also have branches to accommodate blood flow to important organs. These devices are placed usually using two incisions in the groin, and possibly an incision in the left or right arm. The devices are quite large, and usually require several different stents to be assembled in the aorta under x-rays to complete the repair. The surgeon can tell you which branches you will specifically need to have stented and can draw a picture to give you a better understanding of how much of your aorta will be covered.

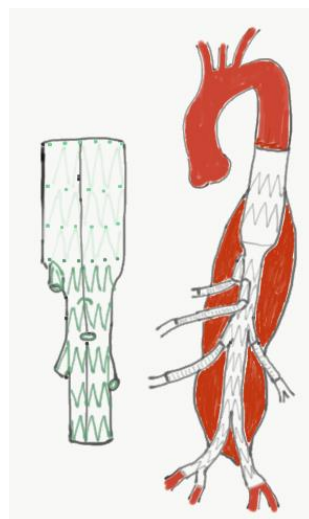
Depending on the length of the stent graft you need, your surgeon may choose to offer you a 'staged' procedure. This means you will have more than one operation to implant the entire device. This decision is usually made in order to decrease the impact of surgery and make it easier for you to recover.

After a FEVAR or BEVAR, you may experience some back pain that should resolve in the first few days after surgery. We believe this comes from the healing process where the aneurysm sac is clotting around the stent, and the stent is settling into position. For most patients, this is resolved before they are discharged home.

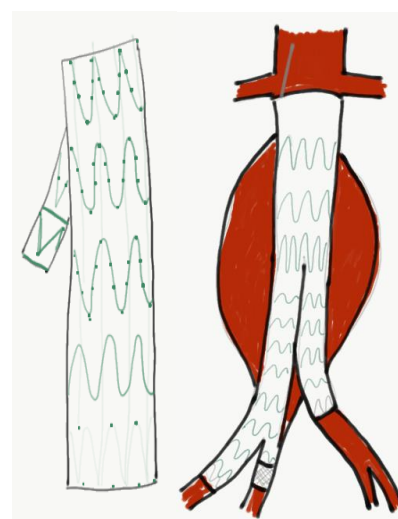
Occasionally surgeons may decide to postpone one component of the stent out to protect your spinal cord. What this means is that you may be asked to return a month or so after surgery to have your repair completed. This is a benefit of endovascular repair – because it is assembled in pieces, we can build it to suit your needs.



Fenestrated Stent Graft



Multi-branched Stent Graft



Iliac-branched Stent Graft

FEVAR

Infrarenal EVAR with or without Iliac Branches

This is perhaps one of the simplest forms of endovascular repair, as it consists of a device that is placed below the kidney arteries into the lowest portion of the aorta and extends into the pelvis. Sometimes it will be necessary to put branch stents into the internal iliac arteries, which provide blood flow to the gut and the spinal cord, as well as the buttock muscles. If, instead of branching, we choose to cover the internal iliac arteries, you may find that you have some pain in your buttock when walking after surgery. This usually takes a few months to resolve and may persist if you walk quickly up hills. This decision, to cover an internal iliac artery, is not taken lightly, and usually is related to the complexity of the anatomy in your pelvis. Please have a discussion with your surgeon about the likelihood of you needing an operation to cover an internal iliac.

Arch Branch Endovascular Repair

Although open surgery for aortic arch disease is the gold standard, for some patients who are too high risk for open cardiac surgery, there may be a stent graft option. Because it will be necessary to access branches to the blood vessels to the brain, you may also require incisions in the neck or arms to fully implant this device. Your surgeon can explain the details of this procedure.

Endoleak Repair

Occasionally, if you've had an endovascular repair of an aneurysm or dissection there may be some small arteries that continue to feed the aneurysm sac, or there may be a kink or disconnection in some of the component stents of the repair. This is known as an 'endoleak' and does not mean that there is blood leaking out of your aorta but does mean that your aneurysm is at risk of growing. In these cases, it is necessary to undergo another procedure to repair the endoleak, which is usually much smaller than the original procedure.

Aortic Outpatient Clinic

Meeting the Consultant

During the consultation with your consultant surgeon, you will be asked relevant questions about your symptoms, level of fitness, other medical problems, and medications. Your condition will be explained in a language that you can understand, and you will have time to ask all the questions you want. Your surgeon will explain what the options are to treat your aortic condition:

- Watch and Wait: some patients do not need treatment yet as the aorta has not reached the size required for this to be necessary. In these cases, you will be invited for regular follow-ups with further scans +/- other tests.
- Open surgery
- Endovascular surgery (stents)

Remember that everyone is different, and the treatments we offer are tailored to each patient and their aorta.

Consent (your permission) is always needed before elective surgery. We provide you with the information you need regarding your diagnosis, what can happen without surgery, and the risks and benefits of different procedures (options).

Informed consent for aortic procedures routinely includes discussion of:

- Bleeding – including the need for blood transfusion
- Infection – the most common one being a chest infection
- Heart attack or heart failure
- Lung failure, requiring artificial ventilator support and sometimes a tracheostomy
- Stroke
- Kidney failure – sometimes requiring temporary dialysis
- Paraplegia (impossibility to move the legs) – due to spinal cord injury (only for complex aortic procedures)
- Weak (hoarse) voice
- Injury to the blood supply to the bowel or to the legs
- Death
- Later reinterventions

Your surgeon will explain in detail which are the estimated risks associated with your case.

Pre-admission clinic

After meeting with your surgeon and deciding you would like to be considered for surgery you will be invited to attend a pre-admission clinic. Sometimes this will be on the same day after seeing the consultant in their clinic or later depending on the timing of surgery and how many pre-operative tests are needed before your operation.

When you attend the clinic, you will be seen by an advanced nurse practitioner, who works with your surgeon and anaesthetist to ensure that you are medically fit and prepared for your operation.

At the clinic you will undergo a clinical assessment which will enable us to identify any matters requiring further investigation prior to surgery.

Your assessment will include a physical examination as well as a discussion about your medical and surgical history, your current medications, and any allergies. We will also discuss your social situation and any possible needs you may have after discharge from hospital and how best to prepare for these before admission. It is therefore helpful if you could bring your next of kin contact details, your current medications or a copy of your prescription, and details of any operations you have had in the past. We will also go over what has been decided at the consultant's

clinic to ensure you understand and to ensure you have the opportunity to ask further questions.

The number for the pre-admission clinic is 02034657554. If you have any questions after your clinic appointment whilst awaiting your surgery date feel free to call at any time between 07:30 and 15:30 from Monday to Friday.

Relevant tests

Some of the tests that may be needed to confirm your diagnosis and to ensure you are fit and ready for surgery include:

- A **CT Scan of the Aorta** to look at the whole length of your aorta. The focus of this scan is to diagnose the condition you have, see whether there has been any change from a previous scan and planning the surgery (when needed). This test records pictures of your whole body (from neck to knees) after injecting contrast dye into a vein.
- A CT scan to look at your coronary arteries (**CTCA scan**). This is similar to the CT angiogram aorta scan you may have already had. The main focus of this scan is to record pictures of your heart, after a contrast dye is injected into a vein (usually in your arm). The dye highlights any blockages in your coronary arteries, helping to diagnose or rule out any coronary artery disease that might need to be addressed before or during surgery.

Scans that require injection of contrast dye can be harmful to the kidneys. If you have poor kidney function you might need to have fluids administered through a vein before and after the scan (pre-hydration)

- If your CTCA scan is suggestive of any coronary artery disease more information may be needed, and you will be asked to attend an appointment for a **myocardial perfusion scan** and/or a **conventional coronary angiogram**.
- An **echocardiogram**: This is a type of ultrasound scan looking at the heart and nearby blood vessels. Your ECHO provides us with valuable information about how well your heart is functioning as a pump and how well your heart valves are functioning.

- **Lung function tests:** Including spirometry and gas transfer tests, that measure the amount of air your lungs can hold, how forcefully you can empty air from your lungs, and a measurement of the lungs' ability to transfer gas from the inspired air to the blood stream.
- A **6-minute walk test:** This is an exercise test used to assess aerobic capacity and endurance by looking at the distance you can walk in 6 minutes whilst monitoring your oxygen saturations, heart rate, and blood pressure.
- An **ECG:** This is a quick test that is used to check your heart's rhythm and electrical activity. Sensors attached to the skin are used to detect the electrical signals produced by your heart each time it beats.
- **Blood tests:** A full set of blood tests including a full blood count, kidney function, liver function, thyroid function, clotting and a cross match of your blood type will also be needed to assess your fitness and ensure you are ready for surgery.
- **Dentist visit:** If you have your own teeth, we recommend that our aortic surgery and heart valve patients visit a dentist pre-operatively. This is to ensure that you do not have any gum infections or any outstanding dental work that could delay your surgery. You are advised to visit your dentist routinely every 6 months to ensure your dental health is maintained to a satisfactory standard. It is your responsibility to book your own dentist appointment, we cannot do this for you. A list of NHS dentists in your area can be found at www.nhs.uk.

It is quite likely that you will need to attend Barts a few times for these tests prior to receiving your surgery date. Unfortunately, it is not usually possible for these tests to be done at other hospitals.

If you attend a pre-admission clinic on the same day as the consultant's clinic it can be quite a long day so you may wish to bring lunch and a book to read whilst waiting for your appointments/tests.

You should be told during the pre-admission clinic what medication (if any) that you may need to stop or reduce before the operation, if you are unsure or forget, please contact the pre-admission clinic on 020 346 57554 or the Pharmacy department on 0203 346 56354.

Waiting List for Elective Surgery

If you require surgery and you are willing to have the procedure done, your name will be provisionally included on the Elective Waiting List after your consultation with the consultant surgeon.

Only when all the relevant tests are completed, we will be able to offer you a provisional date for surgery.

The waiting time is not standard and depends on several factors, including your diagnosis, and the type of procedure that you require.

Your surgery date will be scheduled by the Single Point of Contact Team (SPOC team), who will contact you once your surgery date is finalised. This is usually with at least 2 weeks' notice of your surgery date so that you can plan for your admission. Details of your admission will be detailed in the letter you receive from the hospital informing you of your operation date.

Unfortunately, for a variety of reasons, cancellations to surgery can occur. If your operation must be cancelled the reason will be explained to you. We appreciate that this is a stressful time for you and your family, and we will endeavour to provide you with an alternative date for surgery as soon as possible.

We are currently asking our surgical patients to isolate for a period before and after surgery to reduce the risk of catching or carrying Covid-19 into our hospitals; you may also be asked to attend for a Covid swab before your operation. This guidance is obviously subject to change and up to date guidance will be provided in your letter from the SPOC team.

The number of the SPOC team is 020 3465 5655 (09:00 -16:30 Monday – Friday).

Preparing for surgery

Once you have been referred for aortovascular surgery you can use the waiting time to raise your level of fitness and reduce the risks associated with surgery.

1. Stop smoking – if you stop smoking before your surgery you will reduce your risk of developing a chest infection, help your wounds heal more quickly and improve your long-term recovery. The benefits of stopping smoking occur 3 months after you stop, therefore it is important to stop as soon as possible. Your GP can refer you, or

you can phone your local smoking cessation service to make an appointment with an adviser. Contact details for help can also be found at the back of this booklet.

2. Lose weight and have a healthy balanced diet – excess weight puts extra strain on your heart. Losing weight will also make your recovery quicker. If you need help to lose weight, please discuss this with your GP or practice nurse.

3. Start walking! There is nothing better to get you ready for surgery than dedicating time to regular daily walking. This will help you get 'conditioned' for surgery. If you need help with this, please talk to us about prehabilitation advice.

4. Reduce alcohol intake Decreasing alcohol intake before surgery will also speed up your recovery and reduce your risk of developing complications. Heavy alcohol consumption can lead to serious complications (e.g. excessive bleeding, infection and increased confusion).

What to bring into hospital?

There are some locker and drawer units on the wards for your belongings, but space is very restricted. We have the provision to lock your belongings away whilst you undergo your surgery, however it is strongly recommended that you do not bring in many belongings or valuables. Whilst we do our best to ensure they are looked after there are occasions when items go missing and unfortunately we cannot accept liability for their loss.

Suggested Items:

- Basic toiletries and wash bag
- Current medication (including creams, lotions and insulin)
- Slippers (with ankle support) or footwear
- Night clothes and dressing gown
- Day clothes for when you are up and about and to wear when you go home
- 2x Supportive bras for all female patients (preferably non wired), to wear day 1 after surgery
- Your stick if you usually use one to walk.

Plan for going home

You may think it is too early to start thinking about going home when you haven't even had your operation, but preparation is key.

The average length of stay in hospital varies depending on the extent of your surgery (7-14 days after open aortic surgery and 2-5 days after endovascular surgery). Some people will recover more quickly, and some will take longer, but the more you engage in the recovery process the quicker you will recover and be ready for discharge. Our aim is always to get you home but occasionally there may be a medical need for you to go to your local hospital for on-going care.

When you leave hospital, you will need to have some support at home. Although it is not necessary for someone to stay with you 24 hours a day, we advise that you have a family member or friend that can check on you and stay overnight for the first few days.

Unfortunately, the NHS cannot provide convalescence, but you can arrange this privately if needed. Please note that we are unable to influence local councils or apply for any change in your housing situation on your behalf. Prior to surgery we suggest that you discuss any concerns you have about housing with your local council. It is your responsibility to sort out any problems you may have prior to admission.

If you look after someone else, you will need to consider and organise who will care for them whilst you are in hospital and whilst you recover. You can ask your GP for additional help from social services. This will need to be arranged prior to your admission to hospital.

Hospital Admission

Coming into hospital

You will be admitted to either 4A or 4B ward on the 4th floor of the King George V building as detailed in your letter.

Your bed may not be ready straight away so you may need to sit in the day room whilst your bed is being prepared. During this time, we will keep you informed on the status of your bed. Once your bed is available, the nursing staff will start completing your paperwork and checks, give you a name band and advise you about what you can eat and drink. If you have any concerns about going home after surgery, please highlight them to the nursing staff straight away.

Prior to your operation you will be seen by the anaesthetist who will talk to you about the operation and may prescribe you a tablet to take before your operation (pre - medication).

A member of the surgical team will also see you to discuss the operation and ask your consent to surgery. You will be informed of your place on the operating list/ theatre schedule prior to surgery however this may change due to emergencies.

We recommend you should have a shower / bath daily for at least 5 days prior to your admission.

It is necessary for most patients to remove any hair prior to surgery from your chest, belly, groins, and legs depending on where the cuts are planned. **Please do not do this yourself before admission.** The nurses will use clippers to do this on the ward. **You will be asked to have a supervised /assisted shower the night before surgery and another shower on the day of surgery. An antibacterial soap ‘Octenisan’ will be supplied for these two showers that will help reduce your chance of developing infection.**

On the day of surgery, patients are not allowed to eat or drink from midnight although in individual circumstances this may be altered by your anaesthetist. If in doubt, ask. This is to prevent the contents of your stomach going into your lungs after you are anaesthetised.

Theatre – Anaesthesia

You will be transferred from the ward to the operating theatre in a wheelchair. After arriving in the operating theatre, you will be asked once again to check your name and date of birth and what operation you are expecting to have. This is an important final check to ensure we have the right patient for the right operation.

Before going to sleep you will have a drip inserted into a vein and an artery, but your anaesthetist will use local anaesthetic to reduce any discomfort you may feel. After attachment of ECG stickers, the anaesthetist will ask you to breathe some oxygen from a face mask, anaesthetic drugs will then be injected into the drip and you will slowly drift off to sleep.

Your anaesthetist will stay with you throughout the operation and accompany you during your safe transfer to the Intensive Care Unit (ICU). The anaesthetist is responsible not only for keeping you asleep but also for controlling your blood pressure, heart rate, lung function, kidney function, temperature control and blood volume during the operation.

The length of time it takes to perform each operation is different. This depends on your condition and the type of operation you require. Each patient's recovery rate is different and again, this depends on our general health and any pre-existing conditions you may have.

After your operation – ICU / Ward stay

After your operation you will be in the Intensive Care Unit (ICU) on the first floor; either unit 1C, 1D or 1E. The nursing staff on the unit will guide you through each step of your recovery.

For endovascular surgery, most often patients are awakened in the operating room and are breathing by themselves by the time we transport them to ICU. However, for open aortovascular surgery, you will be transferred to ICU asleep and might remain sedated for several hours (in some cases even a few days) until it is safe to wake you up.

When you wake up there will be a tube in your mouth to help you to breathe. As this goes through your voice box you will not be able to talk, but the nursing staff will support you during this time, to enable you to communicate. This breathing tube will not make you gag, retch or vomit as during the operation your throat has become accustomed to the idea of a tube being in place.

You will receive ventilator (breathing machine) support for several hours following your operation. The length of time you receive this support will depend on your condition following surgery. If you remain on this machine for a significant length of time you will receive drugs to keep you sedated and comfortable.

Once you are awake and able to breathe deeply on your own the tube will be removed and replaced with an oxygen mask over your mouth and nose. It is important to take deep breaths and cough at regular intervals as this will help expand your lungs and prevent infection

When you wake up, you will find to have a large tube in the vein in your neck, smaller tubes (cannula) in your arms for medication access, and a catheter in the bladder to measure the urine you pass. If you had open surgery, you will also have drains coming out of your chest. These are all present to assist your nurse to monitor you closely and provide you with all the medications you require. As you begin to improve these tubes and catheter will be removed.

The main type of pain relief for the first 24 hours after your operation is morphine. This will be administered either by the nursing staff or by a device known as a PCA or Patient Controlled Anaesthesia, which you are able to control yourself. This choice can be discussed with the anaesthetist before the operation. As soon as you are able, we will give you painkillers by mouth in tablet form. **It is our aim to keep you as comfortable and pain free as possible. It is very important that you inform the medical or nursing staff if you are experiencing pain or are uncomfortable.**

Following your endovascular surgery, you may remain in ICU/HDU for 1-2 days, however, due to the complexity of some of the aortovascular open surgery procedures you may remain in ICU/HDU for 7-14 days. We will try to get you out of the bed into a chair as soon as possible after your surgery, because getting up and moving as soon as possible is the best way to help you recover quickly. Once you are fully awake and not connected to any machines to support your organs, you will be expected to start to march on the spot with the nursing staff and go for a walk with assistance as soon as you are able. You will be encouraged to perform breathing exercises independently by the nursing staff. By starting the following exercises as soon as possible, you can help prevent a chest infection and any formation of clots in your legs.

Only when your organs do not need any extra support and/or special monitoring, you will be transferred back to the ward (4A or 4B), where you will be able to start mobilising more normally (with help if needed) and to get ready physically and mentally to be discharged home in the following days.

You may be given support stockings to wear following your operation to help your circulation and blood flow. In addition to this a small injection of anti-coagulant (blood thinning drug) may also be given to help the blood flow freely and prevent clots from forming. You will need to wear your support stockings for 6 weeks following your operation. Prior to your discharge the nursing staff will tell you when you can remove your stockings and will record this in your discharge information.

The day of your discharge, you will receive information from your doctor, nurse and pharmacist, about:

- The medication you must take on discharge and for how long.
- Care of your wounds. If there are any concerns about the healing of your wounds or you have a superficial wound infection, you might need to come back to the Wound Clinic for special dressings and reviews.
- Things you can and you can't do after surgery
- The date of your follow-up appointment with the consultant – this could be either a telephone consultation or a clinic visit to the outpatients department.

Discharge from hospital

Please note the hospital do not normally provide you with transport home. You should arrange transport yourself. When you are being collected you must please remember we are in the congestion charging payment zone. There are a few parking spaces at varying locations near the hospital and the nearest/cheapest car park is the underground NCP Smithfield Market – between the hospital and West Smithfield meat market

A free phone taxi pod is available in reception for contacting a local taxi company who will be willing to take you home at competitive rates.

If you require a medical certificate for work for the period you are in hospital, please ask the nurses on the ward or your GP when you return.

Taking your Medicines

There will be changes to your regular medication following your operation. These changes may be long term additions or may be short term such as taking pain relief, laxatives, and diuretics (water tablets).

On discharge from hospital, you will be given a minimum of two weeks supply of drugs. Further repeat prescriptions should be obtained through your GP. It is important to take the medication as it is prescribed, and to understand what medication you are on and what it is for. Do not take any other medication without telling your GP first. If you are unsure, your nurse or pharmacist can provide additional information.

Please do not stop taking your medications without discussing it with your GP or consultant.

If you have any questions about your medication; either before or after your operation, please contact the Pharmacy department on 0203 346 56354.

Recovering From an Acute Aortic Dissection

If you have suffered an acute aortic dissection, most commonly you will have been admitted to Barts from the Accident and Emergency department at your local hospital, where you originally went.

An aortic dissection is a life-threatening condition that affects the aorta. It occurs when the innermost layer (intima) of the aortic wall tears and causes blood to leak into the other layers (media and adventitia) of the vessel eventually creating two separate channels (true and false lumen) for the blood to circulate. This can create problems of blood supply to vital organs depending on the segment of the aorta affected and associates with a high risk of aortic rupture. Depending on the location of the tear, the aortic dissection is classified as either:

- Type A where the affected section is the root, ascending aorta, or aortic arch. This condition is life-threatening, and surgery should be offered as soon as possible (emergency surgery).

The surgery is performed from the front of the chest and implies cutting out the part of the aorta with the initial tear and replacing it with a woven artificial graft. The extent of the repair varies depending on how much damage the dissection has caused. In any case, the whole aorta cannot be replaced in one operation, so it is not unusual to have to leave a 'residual' dissection affecting the distal parts of the aorta.

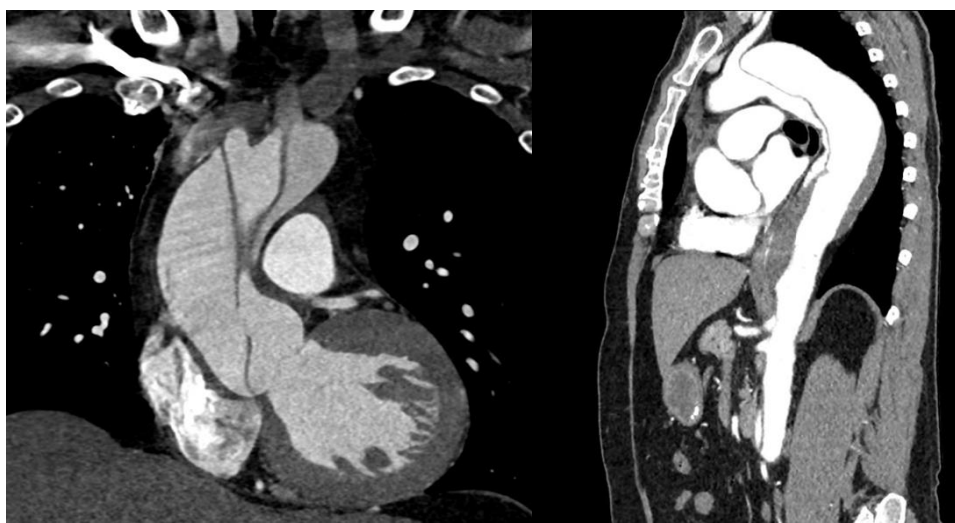
The dissection will have to be closely monitored throughout your life in the outpatient clinic and CT scans will be organized at regular intervals.

In some circumstances – when the aorta dilates (expands) or if any of the important branches that provide blood to vital organs get restricted – another intervention (either further open surgery or stents) might be required.

- Type B: the affected section is from the descending aorta down to the abdominal aorta. This condition is usually managed with tight control of the blood pressure in an ITU environment, but a stent or early surgery might be

offered in certain cases when the blood pressure cannot be controlled with medication and/or the blood flow to certain parts of the body is compromised.

Your consultant surgeon would have explained to you when you feel ready for it, which type of aortic dissection you suffered, how much length of the aorta was affected and what was the treatment you required (open surgery / stent / tight control of the blood pressure).



CT scans showing aortic dissections: Type A (left) and Type B (right)

What happened in my case?

The information you might want to know before you are discharged home could include:

- What happened to me and which part of my aorta was affected by the dissection?
- Did I need surgery to repair the dissection? if so, can I have a sketch to keep about the repair performed in my aorta?
- Do I have any residual dissection that might need to be repaired in the future?
- Have I had any complications related to the dissection itself or the operation to treat it?
- What is the plan to follow-up my aorta?

Sometimes, the period following the emergency admission to the hospital (whether your required surgery or not) can be stressful and confusing for you and your loved ones and these questions might not be addressed at that particular time.

Make sure that while you recover at home, you make a list of all your questions and concerns, so they can be addressed when you come back to clinic for your follow-up appointment.

Support available

Recovering from an acute aortic dissection is stressful and you will most likely have a lot of questions about the condition and why did it happen to you.

The mental recovery is as important as the physical recovery, and we want you to know that you are not alone in the recovery process.

Your medical and nursing team will provide all the information you and your relatives need before you leave the hospital.

We can also put you in contact with other people who has gone through a similar experience and can guide and support you through the recovery process. Please refer to the end of the booklet for further information.

You are going to require strict blood pressure control and life-long follow-up appointments to keep an eye on your aorta. Make sure you and your loved ones understand the importance of these.

Following Discharge

Wound precautions

It is important to keep the wounds clean after surgery because infections can develop. You should expect that we will be changing your dressings daily and teaching you how to clean your wounds with an alcohol-based cleanser. We might ask you to continue doing this at home until these are fully healed.

If your aorta is approached from the front of your chest, you will have had a sternotomy – a cut through the sternum (breastbone). Following the operation, your breastbone is held together firmly by stainless steel wires. These stay in place for the rest of your life. It takes six to eight weeks for the bone to heal fully after your operation. Please discuss any concerns you may have about returning to work with your consultant at your follow up appointment.

When at home you may still...

- Find difficulty in falling asleep at night or find that you wake up during the night and have difficulty getting back to sleep. Disturbance of sleep patterns

are very common after surgery. The best advice to re-establish a normal sleeping pattern is by not taking long naps during the daytime, not having large meals late at night and using night sedation if prescribed

- Have problems with constipation. This may be due to the painkillers or aftereffects of the surgery. Keep taking the painkillers if you need them! You may use a laxative of your choice. Also adding more fruit, fibre, juice, and clear fluids to your diet may help.
- Changes in mood; feeling tearful, depressed, or irritable. Your memory and / or concentration may not be as good as usual. This will improve with time.
- Have a lump on your wounds. This will reduce in time (approximately 3 months).
- Feel anxious when you first get home. This is normal. It is important to find a period when you can relax. If you are anxious and have any concerns or queries do not hesitate to contact your local Cardiac Rehabilitation Team, the ward, or your GP.
- Make an appointment to see your GP within two weeks. This gives your GP a chance to see you, ensure that he or she has the correct information and for you to get a repeat prescription of your medication.
- Swollen ankles may be present for a while after surgery, it is important to mobilise as much as you can and elevate your affected leg/legs if you are sitting down. It is vital you continue to wear your compression stockings if advised to and continue taking diuretics (water tablets) if they have been prescribed.

For six weeks after having open aortic surgery you must avoid:

- Lifting anything heavier than six to ten pounds (about the weight of a kettle of water)
- Pushing heavily through your arms to get in and out of bed or chairs
- Pushing hoovers, lawnmowers, trolleys, or wheelbarrows
- Pulling or pushing on heavy doors
- Play sports or do hobbies that involve swinging your arms (golf, badminton, squash, darts, fishing, swimming, or raking the garden)
- Avoid sexual positions that put any undue stress on your breastbone

Do:

- Keep moving. Walking is great for your recovery.
- Hug a pillow or rolled towel when you cough or sneeze for the first 6 weeks after surgery to avoid straining your breastbone as it heals.
- Monitor your posture. Straighten your back up standing tall.

For six weeks after having an endovascular surgery you should:

- Keep moving. Walking is great for your recovery.
- Maintain a healthy diet – sometimes you may not feel like eating, but it is important that you continue to give yourself the energy you need to heal
- Avoid driving until your wounds are healed and you are off any pain killers.
- Expect a follow up appointment and CT scan between week 4 – 6

Frequently Asked Questions

Dress: Wear comfortable loose-fitting clothes that do not put undue pressure on your wounds. For women do ensure that you wear a good supportive and comfortable bra (i.e., a sports bra). This will prevent your breasts pulling at your sternal wound. You will need to wear this from the day after surgery.

Stairs: You can climb the stairs! Take them at a slow pace, stop and rest if you feel tired. When using a handrail, try to avoid pulling yourself up with your arms. Use your legs.

Sleeping: Unless you are advised otherwise, it is okay to sleep in whatever position you are comfortable in. It may be helpful to use pillows to support you to get comfortable.

Sex: You can resume sexual relations when you feel comfortable being mindful of your wound. It is safe to do so once you can manage two flights of stairs, as a general guide this is about two to four weeks after your discharge. Please ask at your consultant at follow up clinic for more detailed information, and advice on Viagra use, if needed.

Driving: You can ride as a passenger in a car anytime. It might be helpful to place a small, folded towel across your chest to prevent the seatbelt rubbing against it. We suggest you can drive 4 -6 weeks post-surgery however this is dependent on your medication and recovery. Your consultant will advise you at your follow up appointment after surgery. We advise you **contact the DVLA** yourself to get advice and ensure it is safe for you to drive and inform your insurance company that you have had surgery. You will also have to disclose if you have an aneurysm or an aortic dissection.

Work: Check with your consultant before returning to work. Depending on their job, most people take 3 months off work.

Follow-Up in the Outpatients Clinic

After having had elective aortovascular surgery

You will be invited by a letter on the post to an appointment in the postoperative outpatients clinic around 6-8 weeks after your operation. These appointments are sometimes run face to face, but they are increasingly converted to video or telephone calls.

This appointment will be either with your consultant surgeon or with a member of their team.

You will be asked about your symptoms (if any), how are you recovering from the procedure, if you have any problems with your wounds and which medication you are taking. The doctor might want to know how well controlled your blood pressure is – bring records of it if you have them available.

Depending on your original diagnosis and type of surgery, you might require CT scans to be repeated at certain intervals to either check on the result of the operation or to monitor the rest of your aorta.

Your team will explain to you if you require this type of surveillance and how often.

After recovering from an acute aortic dissection

An aortic dissection is a condition that requires close monitoring for the rest of the patient's life.

If you suffered a type A aortic dissection and had emergency surgery, it is likely that there is still residual dissection to other segments of the aorta (those cannot be approached in an operation from the front of the chest). The rest of your aorta requires close monitoring to see whether it expands (dilates) with time or whether the dissection has affected the blood flow to any of the vital branches.

If you suffered a type B aortic dissection, it is likely that you were treated with tight blood pressure control initially. In this case, close monitoring is also vital to see changes in the aorta (expansion or reduced blood flow to any vital branch).

A very strict blood pressure control is vital for aortic dissection patients. You will be advised to keep your systolic pressure (the high number) below 140mmHg. Please visit your GP regularly if you struggle to achieve this target.

You will be monitored with CT scans at different intervals (initially more frequently). If the aorta changes in size or the blood flow to any vital organ is reduced, it is likely that you will be offered another surgical procedure, this time planned (elective surgery).

In any case, make sure you ask all the relevant questions of your medical team during the clinic appointment. Sometimes making a list in advance or bringing somebody with you helps to remember these things.

Useful Contacts

Pre-Assessment Clinic: 020 346 57554

SPOC (Single Point of Contact) team: 020 346 55655

Intensive care: **1C** - 020 376 58344 / 58341

1D - 020 376 58327 / 58028

1E - 020 376 58013 / 58320

Wards: **4A** - 020 376 58106 / 58107

4B - 020 376 56364 / 56366

Wound Clinic Surgical Care Practitioner Team (SCP) – 020 376 58914

Email: scp@bartshealth.nhs.uk

There is also a wound clinic (by appointment only) located in Clinic 1, the outpatient department, KGV building, St Bartholomew's Hospital

Opening hours – Tuesday 1pm-4pm and Friday 10am – 1pm

Pharmacy Department: 0203 346 56354

Physiotherapy Advice: www.physiotherapyexercises.com

Cardiac Rehab Team at St Bartholomew's Hospital: 020 3465 6593

PALS: 0203 465 5919 / sbhpals.bartshealth@nhs.net

Smoking cessation: Smoke Free National Helpline – 0300 123 1044

Useful Information for Aortovascular Patients

- www.heartresearch.org.uk
- British Heart Foundation, www.bhf.org.uk
- Patient Association for those suffering an aortic dissection, Aortic Dissection Awareness UK & Ireland, at www.aorticdissectionawareness.org
- The Aortic Dissection Charitable Trust, www.aorticdissectioncharitabletrust.org
- www.livingwithdissection.iradonline.org/
- www.thinkaorta.net
- Aortic Dissection Buddies UK & Ireland Facebook Group – Private Facebook group limited to patients affected by an aortic dissection -

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Large print and other languages

This information can be made available in alternative formats, such as easy read or large print, and may be available in alternative languages, upon request. For more information, speak to your clinical team.

এই তথ্যগুলো সহজে পড়া যায় অথবা বৃহৎ প্রিন্টের মতবকল্প ফরম্যাটে পাওয়া যাবে, এবং অনুরোধে অন্য ভাষায়ও পাওয়া যতে পারে। আরো তথ্যের জন্য আপনার ক্লিনিকিয়াল টিমের সাথে কথা বলুন।

Na żądanie te informacje mogą zostać udostępnione w innych formatach, takich jak zapis większą czcionką lub łatwą do czytania, a także w innych językach. Aby uzyskać więcej informacji, porozmawiaj ze swoim zespołem specjalistów.

Macluumaadkaan waxaa loo heli karaa qaab kale, sida ugu akhrinta ugu fudud, ama far waa weyn, waxana laga yabaa in lagu heli luuqaado Kale, haddii la codsado. Wixii macluumaad dheeraad ah, kala hadal kooxda xarunta caafimaadka.

Bu bilgi, kolay okunurluk veya büyük baskılar gibi alternatif biçimlerde sunulabilir, ve talep üzerine Alternatif Dillerde sunulabilir. Daha fazla bilgi için klinik ekibinizle irtibata geçin.

آسان مین پڑھنے کے لیے جیسا ہیں، سکتی جاکی دست یاب میں فارمیٹس م ت بادل معلومات یہ ہ
پرنٹ بڑا یا اور درخواست پر متبادل زبانوں میں بھی دستیاب ہو سکتی ہیں۔ مزید معلومات کے لیے، اپنی
کلینکل ٹیم سے بات کریں۔

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Please contact us if you need general information or advice about Trust services:

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All our patient information leaflets are reviewed every three years.