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Understanding Open Abdominal Aortic Aneurysm Surgery

Excellent care with compassion

Division of Surgery –Vascular Department

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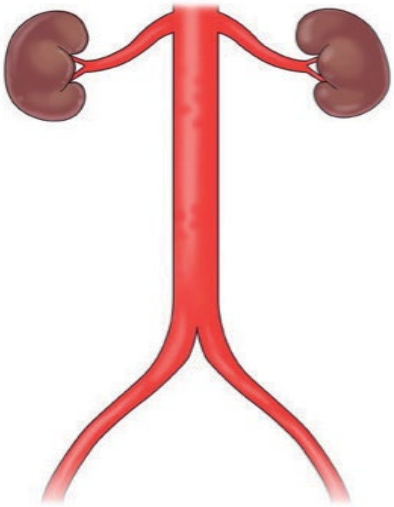
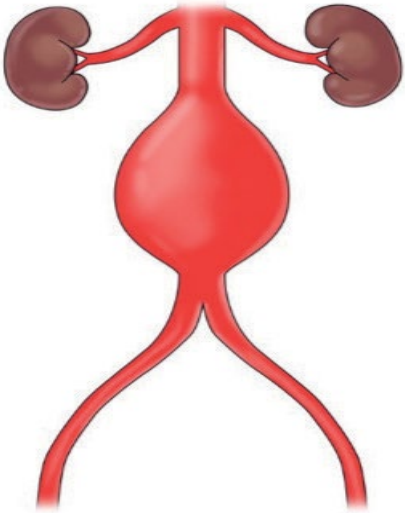
Why do I need the operation?

The aorta is the main artery that carries blood from your heart to the rest of your body. Your aorta has become enlarged and the walls have become thinner (aneurysmal). This puts a strain on the wall when blood is pumped through the aorta, increasing the risk of it bursting open (rupture). Your aneurysm will be 5.5 cm or larger and the risks associated with surgery to repair it are now lower than the risk of it bursting. Sometimes aneurysm repair is recommended on detecting certain specific symptoms such as if you experience pain or tenderness in your abdomen over the aneurysm or when the rate of growth is fast.

Normal



Aneurysm



Benefits of the surgery

The operation will repair the part of the aorta that has become enlarged and weakened. This will prevent it from rupturing.

Risks of surgery

- For most patients the risk of death is around 3-5%, however based on the tests you have had to assess your fitness for surgery, your surgeon can give you a personal risk level and expected survival rate
- Heart attack (Myocardial infarction (MI))
- Stroke
- 1% limb loss
- Graft infection (this is uncommon but would require long term antibiotics and possibly surgery to remove the graft)
- Kidney damage
- Chest Infection (you are at a higher risk if you are a smoker)
- 1-2% risk of bowel ischaemia (which may result in you having a colostomy). Disruption to the way your bowel works (may be slow to get working again)
- Wound infection
- Fluid leak from the groin wounds
- Deep vein thrombosis (DVT)/Pulmonary embolism (PE)
- Bleeding
- Nerve damage or paralysis around the wound
- Impotence may occur in around 10% of men due to the nerves in your abdomen having to be cut during the surgery

How can I help myself?

Aortic surgery is a major procedure and you should try to improve your health as much as possible before surgery.

If you have a history of high blood pressure, high cholesterol or diabetes these should be monitored and kept under control. If you have been prescribed medication for any of these please ensure that you take them as recommended. A daily dose of aspirin or an alternative will help to make your blood less sticky.

Smoking

If you are still smoking it is important that you give up. Smoking speeds up the process of hardening of the arteries and clamps down on the small collateral vessels (extra small blood vessels that are attached to the main arteries), reducing the amount of blood and oxygen going to the muscles. You are also more likely to develop chest complications if you smoke. There is help available to everyone who wants to give up smoking.

You can access this via your GP or local stop smoking service.

Exercise

Taking regular exercise will help to keep your arteries healthy and reduce any risks to you during surgery. Avoid very strenuous exercise such as weightlifting, gym activities and running prior to surgery.

Diet/weight control

If you are over-weight you should try to reduce your weight which will also help your fitness for surgery. If you have high cholesterol you should follow a low-fat diet to control the daytime cholesterol levels and consult your GP to discuss starting statin therapy.

Before the operation

You will have had a number of investigations prior to being offered surgery; including a Cardio-pulmonary exercise test (CPEX) which helps the vascular team to determine your fitness for the operation.

If you are not already in hospital, you will be asked to attend the hospital for a pre-operative assessment before your operation. This will allow time for any further tests to be done to ensure you are as fit as possible prior to surgery (including an electrocardiogram (ECG) and up to date blood tests). You will be able to talk to one of the vascular specialist nurses who will answer any questions you may have. Please make sure you understand everything you are told. You will be given instructions on what medication (If any) to stop taking before the operation.

You will be admitted on the day of the operation (a letter will be sent to you from the waiting list department with all of your instructions including when to stop eating and drinking). The nurses will help you prepare for theatre. Your operation will be performed under general anaesthetic where you will be asleep throughout the procedure) and an epidural tube is placed in your back through which local anaesthetic and strong painkillers can be administered). The anaesthetist will visit you on the ward to discuss this and to answer any questions about the anaesthetic that you might have. If you are diabetic, care will be taken to monitor and control your blood sugars.

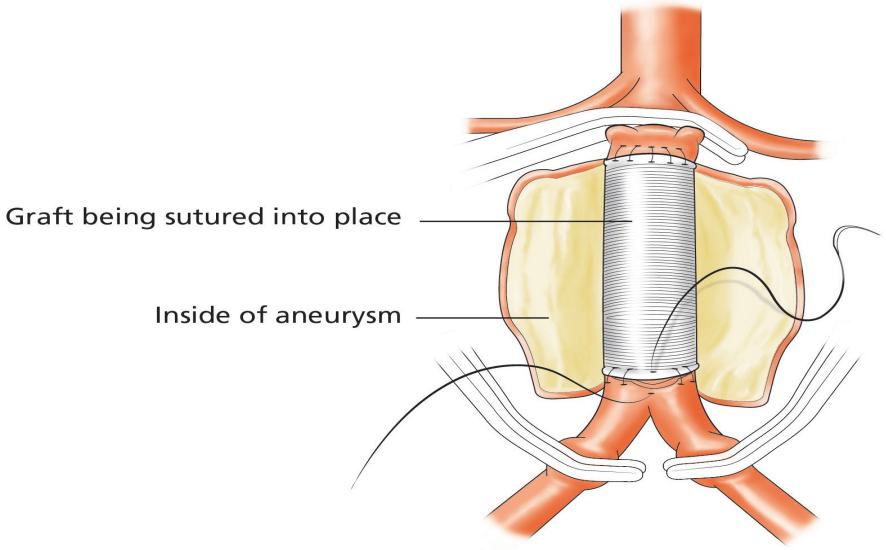
This may require a needle in your arm with a special drip called a sliding scale.

The operation

You will be taken to the anaesthetic room where your details will be checked and you will be prepared for theatre. You will have some heart monitoring stickers placed on your chest, so the anaesthetist can monitor your heart during the operation.

You will have a tube into your bladder (a catheter) and sometimes a tube into your stomach via your nose (an NG tube) to stop you feeling sick. You will have fluids through a drip in your arm and may also have a line inserted into your neck or wrist for blood pressure monitoring. These will all be inserted after you are asleep.

The surgeon will make a cut down your abdomen and the aortic aneurysm will be replaced using an artificial tubing. This is made of a strong flexible polyester fabric known as Dacron which will be stitched into place. The wound will be closed using either stitches or staples that require removing or with dissolvable stitches (the surgeon will decide during the operation which is best for you). You may also have a drain (a fine tube which is attached to a bottle which allows drainage of excess bloodstained fluid) in your wound, which is usually removed 24-48 hours after surgery.



After the operation

After surgery you will be taken to the high dependency unit or intensive care unit for close monitoring- usually for 48 hours but this will depend on your condition. Patients recover differently and some may require a longer stay. Once you are stable you will be moved onto a ward.

The nurses will regularly monitor your blood pressure, pulse, temperature, respiratory rate and oxygen levels (observations). The circulation to your feet will be regularly monitored as will your urine output. You will also be given oxygen, usually via a face mask if required. Following your operation every effort will be made to keep you comfortable.

A physiotherapist may visit you to help you with deep breathing exercises, to help prevent a chest infection. It is very important to keep your chest clear by way of intermittent deep breathing and attempts to cough up secretions so as to reduce this risk.

Pain control

The anaesthetist will discuss with you the options for pain control after your operation.

An epidural may be used during surgery to supplement a general anaesthetic and continued after the operation for pain control. The nerves to your lower back pass through an area close to your spine called the 'epidural space'; the anesthetist uses a needle to place a fine plastic tube (an epidural catheter) into the epidural space. Local anaesthetic and sometimes other pain relief medicine are put through this catheter to block the pain messages and relieve the pain.

Other pain-relieving medicines e.g. morphine can be put into a pump called a patient controlled analgesia pump (PCA). The pump will be connected to a vein in your hand or arm and you will be able to press a button to deliver a pre-set dose of the pain relief medicine. As your condition improves the PCA or epidural will be removed and

you will be given pain relief medicines in either tablet or liquid form. Every effort will be made to keep you as comfortable as possible following your operation.

What happens over the next few days?

You will be on bed rest immediately after surgery and usually for the first day after the operation. Nurses will assist you with personal care needs. To prevent pressure ulcers, chest infections and deep vein thrombosis you will be advised to move regularly in bed and will be helped with this if required.

You will be reviewed by the duty vascular consultant or one of their team every day during your stay in hospital.

Your digestive system will stop working for a while after surgery so we recommend that you do not eat for some time after the operation. You will be given intravenous fluids for a few days after surgery to keep you hydrated. Your doctors will advise when to start eating, usually you will begin with fluids and progress onto solids. If you are diabetic we will closely monitor your blood sugars and restart your regular medication when you are eating normally.

Over the next few days you will be encouraged to walk. If required, a physiotherapist will assess your mobility, provide you with some exercises to do and possibly offer you a walking aid. Once you are mobile your catheter will be removed.

Depending on your condition you will be in hospital for approximately 7 days. If you need help at home please inform the nursing staff feel.

Your wound

This will be monitored carefully and dressings will be changed when necessary.
If your wound was closed with staples or stitches that need removing this is usually done on day 8-10 after the operation. This will be discussed with you before you go home. This can be done by your

practice nurse or district nurse and the ward nurse will explain this to you before you go home. As you return to normal activity you may find your wound causes you some discomfort for a few weeks but this will settle. Your scar will fade after 6-12 months.

Your legs may be swollen after surgery. This is caused by fluid from the cells collecting under the skin and is a normal reaction to surgery. You should alternate between periods of gentle walking and rest with your legs elevated. Do not stand for long periods during the first month after the operation.

At home

You may feel tired for several weeks after the operation but as time goes by this should gradually improve.

You should be able to gradually resume normal activities when you feel well enough. Regular exercise such as short walks combined with rest is recommended for the first few weeks. Avoid heavy lifting, strenuous activity or over stretching for 4-6 weeks.

You may resume sexual activity after a few weeks when you feel comfortable. This operation can affect sexual activity in men due to the nerves in the abdomen being cut. If you are having difficulties contact your GP who can refer you to the appropriate specialist. You may find that your bowels take a while to settle but they will do so in time. If you are concerned speak to your GP.

Bathing: You may bath or shower as soon as your wound is dry, even if you have stitches or staples in.

Work: You may be able to return to work within 6 weeks of surgery depending on your job. Please let the doctors know if you need a sick note prior to discharge.

Driving: You can drive when you can safely perform an emergency stop. This will usually be 6 weeks after surgery, but if in doubt check with your GP and your insurance policy or wait until you are followed up in the vascular out-patients clinic.

Follow-up: You will be followed up in the vascular out-patients clinic approximately 4-8 weeks after your operation, at your local hospital.

When to seek help

If you develop sudden pain in your back or stomach or any shortness of breath or chest pains you must seek medical attention immediately.

If you develop any sudden swelling and pain in your calf contact your doctor or go to your local A&E as this could indicate a deep vein thrombosis (DVT).

If you notice that your wound site is red, inflamed, painful or discharging pus or fluid contact your GP immediately as you may require antibiotics.

If you develop sudden pain, numbness, coldness or change of colour in the legs or feet contact you GP or go to your local A&E immediately.

If you start experiencing pain in your legs when walking which was not present before the operation inform your vascular team.

If your bowels do not settle and you have a continued poor appetite seek advice from your GP.

This booklet is intended as a guide. Everyone will recover at a different rate.

If you have any worries or questions before admission or after discharge please do not hesitate to contact the vascular specialist nurses for advice.

Contact details

Should you require further advice or information please contact:

Vascular Specialist Nurses:

Preston/ Chorley site - 01772 523757 or via switch board on 01772 71655 and ask for bleep 4605 or 4606.

Blackpool site: Via switch board 01253 300000 and ask them to contact the Vascular Specialist Nurse.

Royal Lancaster hospital: Via switch board 01524 65944 and ask them to contact the Vascular Specialist Nurse
Furness General: Via switch board 01229 870870 and ask them to contact the Vascular Specialist Nurse

Vascular secretaries:

Preston/ Chorley/ Blackpool/ Lancaster/ Kendal /Furness General Hospital:
Via switch board: 01772 716565.

Wigan Wrightington and Leigh:
01942 264057 / 01942 822068.

Sources of further information

www.lancsteachinghospitals.nhs.uk
www.nhs.uk
www.patient.co.uk
www.accessable.co.uk

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Lancashire Teaching Hospitals is a smoke-free site.
On 31 May 2017 Lancashire Teaching Hospitals became a smoke-free organisation. From that date smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our

staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking including Nicotine Replacement Therapy to help manage your symptoms of withdrawal.

If you want to stop smoking you can also contact the Quit Squad Freephone 0800 328 6297.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

Cantonese:
如果你希望以另外一種格式接收該資訊，請和我們聯絡，不必猶豫。

Gujarati:
જો તમને આ માહિતી બીજી રચના કે ફોર્મેટમાં મેળવવાની ઈચ્છા હોય, તો કૃપા કરી અમારો સંપર્ક કરતા અચકાશો નહિ.

Hungarian:
Kérjük, vegye fel velünk a kapcsolatot, ha más formában kéri ezt az információt.

Polish:
Jeżeli chciał(a)by Pan/Pani otrzymać niniejsze informacje w innym formacie, prosimy o kontakt.

Punjabi:
ਜੇ ਤੁਸੀਂ ਕਿਸੇ ਹੋਰ ਫਾਰਮੈਟ ਵਿਚ ਇਹ ਜਾਣਕਾਰੀ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ ਤਾਂ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰਨ ਤੋਂ ਨਾ ਝਿਜਕੋ।

Urdu:
اگر آپ اس معلومات کو کسی اور صورت میں حاصل کرنا چاہتے ہیں تو برائے مہربانی ہم سے رابطہ کرنے میں ہچکچاہٹ محسوس نہ کریں۔

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Division: Surgery
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