

# Open repair operation for an abdominal aortic aneurysm

**If you have an abdominal aortic aneurysm (AAA), you might need an open repair operation. This information explains an open repair operation, and what you can expect when you come to hospital. If you have any questions or concerns, speak to a doctor or nurse caring for you.**

## Abdominal aortic aneurysm

The aorta is the largest artery in the body. It carries blood away from the heart to the rest of the body. The abdominal aorta is in the tummy (abdomen). An abdominal aortic aneurysm (AAA) is a swelling (aneurysm) of the aorta.

An aneurysm happens when the wall of the aorta weakens, and the aorta stretches like a balloon. It is not clear what causes this weakness, but smoking and having high blood pressure are thought to increase the risk.

The abdominal aorta is usually about 2cm wide. An aneurysm can stretch the aorta to make it thinner, until the wall of the aorta cannot stretch anymore. If this happens, the aneurysm is at risk of bursting (rupturing), and causing bleeding. If an aneurysm bursts, the chances of survival are low.

An aneurysm that is 5.5cm or larger might need treatment with surgery to stop it from rupturing.

## Open repair operation

The aim of any surgery for an aneurysm is to stop it from rupturing. Open repair surgery replaces the weak section of the aorta (the aneurysm) with a piece of synthetic tubing (graft).

This operation is successful in most cases, and the graft usually works well for the rest of your life. It is important to remember that your surgeon will only recommend this operation if they think the risk of the aneurysm rupturing is higher than the risk of having treatment.

There is another operation for an AAA, called an endovascular aneurysm repair (EVAR). This is a 'keyhole' procedure. Ask your hospital team for an information leaflet on EVAR.

The type of operation you have will depend on your fitness, and the size, shape and position of your aneurysm. Your surgeon will talk to you about the different operations at your appointment before surgery.

## During an open repair operation

This operation will be done under general anaesthetic or epidural, so you should not feel any pain. Your surgeon will make a cut (incision) down your stomach (from your belly button to the top of your stomach) or across your stomach. Sometimes, a smaller cut is needed in your groin, on 1 or both sides. The groin is the area between your inner thigh and your tummy.

The part of your aorta where the aneurysm is will be replaced by a synthetic piece of artery (a graft). Your incision will be closed with either stitches or metal clips. If you have stitches, these will most likely be dissolvable and won't need removing. If they do need to be removed, this will be done 10 to 14 days after surgery. If you have metal clips, these will need to be removed about 10 days after surgery. This will be organised by your hospital team (see page 4).

## Pain during and after your operation

If you are given a general anaesthetic, this means that you will be asleep during the operation and will not feel any pain. A small needle (cannula) will be put in the back of your hand. The anaesthetic is injected through the needle and you will be asleep within a few seconds.

After your surgery, you might be given a machine that delivers pain medicine into your vein through a drip. The machine allows you to control the amount of pain medicines you have (the dose) by pressing a button. If you do not have this, you might have an epidural after surgery. This is a small tube placed in your back, which will help deliver pain medicine.

## Benefits and risks of an open repair operation

If you have an open repair operation, you are less likely to need more surgery in the future than if you have an EVAR. You are also less likely to need long-term follow-up with CT scans.

As with any major operation, there are risks to having surgery and a general anaesthetic. For example, blood loss which might need a blood transfusion. You may wish to read our leaflet, **Having an anaesthetic**, for more information. Ask your hospital team for a copy of this leaflet.

There are some possible risks after having an open repair operation.

- **A blood clot after surgery.** You will be given medicines to lower this risk. If you do get a blood clot, you will need to take tablets (warfarin) to thin your blood for 3 to 6 months.
- **Chest infection after surgery.** If this happens, you might need antibiotics and physiotherapy. The risk of a chest infection is higher if you are a smoker.
- **Wound infection.** This might need treatment with antibiotics. Serious infections are rare, but sometimes the wound needs to be cleaned out under anaesthetic.
- **Graft infection** can happen in a small amount of people (1 in 500 people). This is serious, and usually treatment to remove the graft, or long term antibiotics are needed.
- **Fluid leak from wound.** Sometimes, the wound in your groin can fill with a fluid called lymph, which can leak between your stitches. This usually settles down with time.
- **Erection problems (impotence).** This might happen in men if the nerves in the tummy are cut during the operation. This happens in about 1 in 10 people.
- **Loss of circulation (blood supply) in the legs.** This might need more surgery.

These risks are rare, but it does mean that a very small number of people might not survive their operation, or the time just after. Nearly 96 in every 100 patients make a full recovery. Your surgeon will talk to you about all possible risks, and how they might affect you. You will be able to ask any questions you have. You will sign a consent form before the operation.

## Asking for your consent

We want to involve you in decisions about your care and treatment. If you decide to have an open repair operation, you will be asked to sign a consent form to say that you agree to have the treatment and you understand what it involves. If you would like more information about our consent process, please speak to a member of staff caring for you.

## Before going into hospital

### Pre-assessment appointment

You will be seen in a pre-assessment clinic before an open repair. You will have tests to check that you are well enough for the operation. Some people are seen by the POPS (proactive care of the older person undergoing surgery) team, who will do medical and social checks.

Your regular medicines will be checked. You will be given advice on which ones you might need to stop taking for a short time before your operation. This might include antiplatelet medicines (such as aspirin, or clopidogrel) or medicines that thin the blood (such as warfarin).

If you are taking medicines for diabetes (for example, metformin) or using insulin, the amount you take (the dose) might need to be changed near the time of your operation. Please ask your hospital team if you have any questions.

### Eating and drinking before surgery

We will send you information about fasting before your operation. Fasting means that you cannot eat or drink anything (except water). This is usually for 6 hours before your operation. We will give you instructions if you need to fast, and when to start fasting. It is important to follow these instructions.

Please take your regular medicines with a sip of water before 6am on the morning of your operation, unless you have been told otherwise.

## Preparing for an open repair operation

There are ways you can improve your health before your operation.

- **Stopping smoking** helps to protect your arteries. This means you are less likely to have a heart attack or stroke. There is support to stop smoking. Call the **Trust Stop Smoking Service**, [phone](tel:02071880995) 020 7188 0995 or the **NHS Smoking Helpline**, [phone](tel:03001231044) 0300 123 1044
- **Keeping active** by doing gentle exercise (such as walking and cycling), can help your fitness and protect your arteries. Exercising might be difficult if you have pain in your arms and legs when you walk, but it is important to keep active.
- **Blood pressure.** High blood pressure can increase the risks of surgery. It is important to have your blood pressure checked often, at least every 6 months. If you have been given medicine for high blood pressure, make sure you take it following the instructions given.
- **Diabetes.** If you have diabetes, it is important that your blood sugar levels are well controlled.
- **Cholesterol (fatty substance in your blood) levels.** It is important to lower the level of cholesterol in your blood. You might be given medicine to help, and low-dose aspirin to help stop blood clots. Your vascular nurse can refer you to a dietitian if needed.
- **Weight.** There are more risks during surgery if you are overweight. Losing weight and having a healthy diet will help lower these risks. Your GP might be able to refer you to a dietitian if you need help.

## After an open repair operation

You will spend the night in overnight intensive recovery (OIR), so that you can be closely monitored. Usually, you will need to be kept on a breathing machine for a short time after the operation. You will be taken off this as soon as possible.

The next morning you will see your surgeon and the anaesthetist. They will decide if you can be taken to the intensive care high dependency unit (HDU). This will depend on the amount of monitoring you need.

After surgery, your bowels can stop working for a short time. If this happens, you will be given all the fluids you need through a drip. You will not be able to eat solid food straight away, and might need a tube down your nose (a Ryle's tube) to help if you feel sick (nausea).

### A few days after surgery

You will start to recover over the next few days. The different tubes you have (such as the drip, Ryle's tube or catheter) will be removed. You will be moved to a ward when you are well enough. You will slowly start to eat and drink again.

You will see a physiotherapist every day from the first day of your operation. They will help you get moving again. It is important that you get out of bed and practice deep breathing to avoid getting a chest infection.

Most people stay in hospital for 5 to 10 days, but everyone is different. You will be sent home (discharged) when it is safe for you, and you are medically and socially fit.

## Going home

If your stitches or metal clips (see page 2) need removing, your hospital team will arrange for a practice nurse at your GP surgery or a district nurse to remove them. The nurse will also check your wound.

Your dressing will usually be removed before you leave hospital. If you still need a dressing when you go home, your GP practice nurse or a district nurse can change it for you. Once your wounds are dry, you can have a bath or shower as normal.

You might feel very tired (fatigue) and weak for many weeks after the operation. This will get better as time goes by. You might have less of an appetite and lack of taste.

- **Exercise** such as a short walk, along with rest, is recommended for the first few weeks. After this time, you can slowly return to your normal activity. You should not lift heavy objects for 6 weeks after surgery.
- **Driving.** You will be able to drive once you are free of pain and can safely perform an emergency stop. This will usually be 3 to 4 weeks after your operation. If you are not sure when to drive, check with your GP. You should tell your insurance company that you have had a major operation, to make sure that you are covered to start driving again.
- **Working.** You should be able to return to work 6 to 12 weeks after surgery. Your GP will help you decide when to go back to work when you see them for your fit note (sick note).
- **Medicines.** You will usually be sent home with an antiplatelet medicine (aspirin or clopidogrel) and a statin (such as atorvastatin), if you were not already taking them.

## Follow-up appointment

You will be given an appointment to see your surgeon 6 to 8 weeks after you have left hospital. We will try to make this is at your local hospital, but this is not always possible. To make sure everyone always has up-to-date information about your health, we might share information about you between the hospitals. Ask your team if you have any concerns about this.

### Contact us

If you have any questions or concerns before or after you have left hospital, please contact the vascular specialist nurses, **phone** 07825 503902, Monday to Friday, 8am to 4pm.

Out of hours, please leave a message and a member of staff will call you back in working hours. You can also contact your GP, NHS 111, or your admitting ward. The ward is open 24 hours a day, and you can speak to the ward sister or nurse in charge.

- **Sarah Swift Ward**, **phone** 020 7188 8842
- **Doulton Ward**, **phone** 020 7188 8841
- **Evan Jones Ward**, **phone** 020 7188 8804
- **Stephen Ward**, **phone** 020 7188 8843
- **Beckett Ward**, **phone** 020 7188 8839

For more information on conditions, procedures, treatments and services offered at our hospitals, please visit **web** [www.guysandstthomas.nhs.uk/leaflets](http://www.guysandstthomas.nhs.uk/leaflets)

### Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or contact our helpline, **phone** 020 7188 8748 Monday to Friday, 9am to 5pm, **email** [mymedicines@gstt.nhs.uk](mailto:mymedicines@gstt.nhs.uk)

### Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service, **phone** 020 7188 8801 **email** [pals@gstt.nhs.uk](mailto:pals@gstt.nhs.uk). To make a complaint, contact the complaints department, **phone** 020 7188 3514 **email** [complaints2@gstt.nhs.uk](mailto:complaints2@gstt.nhs.uk)

### Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch, **phone** 020 7188 8815 **email** [languagesupport@gstt.nhs.uk](mailto:languagesupport@gstt.nhs.uk)

### NHS 111

This service offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day, **phone** 111 **web** [www.111.nhs.uk](http://www.111.nhs.uk)

### NHS website

This website gives information and guidance on all aspects of health and healthcare, to help you take control of your health and wellbeing, **web** [www.nhs.uk](http://www.nhs.uk)

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