

V04 Open Abdominal Aortic Aneurysm Repair

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What is an abdominal aortic aneurysm?

Your aorta is the main artery that carries oxygen-rich blood from your heart to the rest of your body. Your aorta arches through your chest and down into your abdomen (see figure 1).

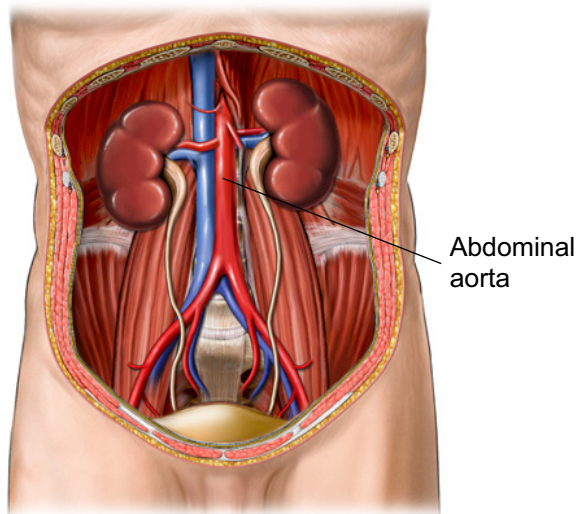


Figure 1
The abdominal aorta

Your aorta can become enlarged (dilated) and this is called an aneurysm (see figure 2). The abdomen is the most common site for an aneurysm to develop.

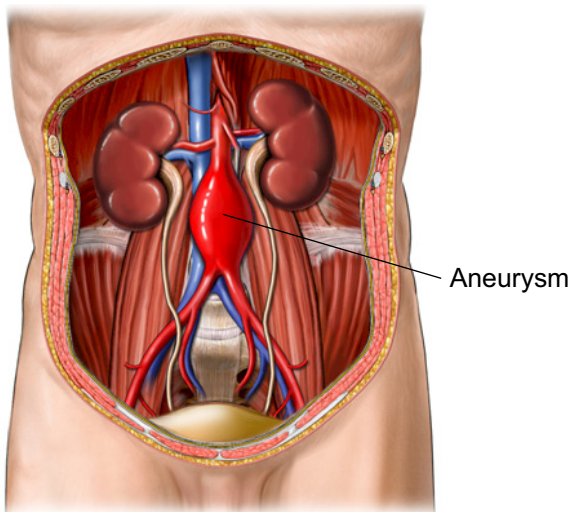


Figure 2
An aortic aneurysm

Your surgeon has recommended an open aortic aneurysm repair. However, it is your decision to go ahead with the operation or not. This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, ask your surgeon or the healthcare team.

How does an aortic aneurysm happen?

An aortic aneurysm is usually caused by changes in the structure of the wall of your aorta.

An aneurysm usually happens below the junction with the renal arteries that supply your kidneys, and before your aorta divides into the iliac arteries that supply your lower body.

An aneurysm has developed because of one of the following risk factors – smoking, high blood pressure, age and a family history of aortic aneurysm. Some of these factors also cause heart disease and stroke (loss of brain function resulting from an interruption of the blood supply to your brain).

You may not have been aware that you have an aneurysm because it often does not cause any symptoms. However, if the aneurysm gets too large, it can burst (rupture). This usually causes death. Once the aneurysm gets larger than 5.5 centimetres in diameter (just over 2 inches), your surgeon will usually recommend an operation to repair it. However, if you have other serious medical problems, your surgeon may decide to wait and operate only when the aneurysm gets even larger. When your surgeon recommends an operation, the risk of a serious complication from surgery is lower compared to the risk of death caused by the aneurysm bursting.

What are the benefits of surgery?

Surgery should prevent you from dying from a burst aneurysm.

Are there any alternatives to an open abdominal aortic aneurysm repair?

Abdominal aortic aneurysms can be repaired using keyhole surgery, where an expanding graft is inserted in the aneurysm. This technique is suitable only for some people and has advantages and disadvantages. Your surgeon will discuss with you why they have recommended open surgery.

You can decide to leave the aneurysm alone but it could burst, causing sudden death. Lifestyle and medication changes may help prevent further damage but will not reverse the damage that is already done.

What will happen if I decide not to have the operation?

As the aneurysm gets larger, the wall becomes weaker and the risk of it bursting increases. If the aneurysm does burst, the chance of surviving is poor. Only 1 in 10 people survives a burst aneurysm.

What does the operation involve?

The healthcare team will carry out a number of checks to make sure you have the operation you came in for. You can help by confirming to your surgeon and the healthcare team your name and the operation you are having. The operation is performed under a general anaesthetic and usually takes one to seven hours. You may be given antibiotics during the operation to reduce the risk of infection. Your surgeon will make a long cut on your abdomen. They will clamp and open your aorta. Your surgeon may need to close small arteries with stitches. They will sew an artificial graft in place (see figure 3).

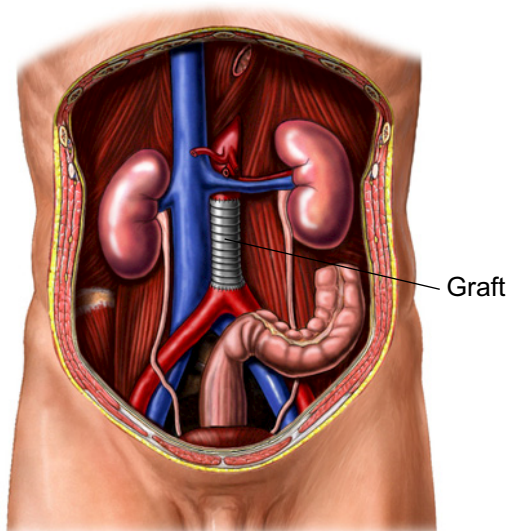


Figure 3
A graft in place

Sometimes your surgeon may need to make cuts on either or both of your groins and connect the lower ends of the graft there. This is called an aorto-bifemoral graft. Your surgeon will close the cuts with stitches or clips. The healthcare team will place a small tube in a vein in your arm (drip) and in your neck (called a central line). They will also place a catheter (tube) in your bladder to help you to pass urine.

What should I do about my medication?

Let your doctor know about all the medication you take and follow their advice. This includes all blood-thinning medication as well as herbal and complementary remedies, dietary supplements, and medication you can buy over the counter.

What can I do to help make the operation a success?

If you smoke, stopping smoking several weeks or more before the operation may reduce your risk of developing complications and will improve your long-term health.

Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should help to prepare you for the operation, help you to recover and improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.

You can reduce your risk of infection in a surgical wound.

- In the week before the operation, do not shave or wax the area where a cut is likely to be made.
- Keep warm around the time of the operation. Let the healthcare team know if you feel cold.

What complications can happen?

The healthcare team will try to make the operation as safe as possible but complications can happen. Some of these can be serious. You should ask your doctor if there is anything you do not understand. Any numbers which relate to risk are from studies of people who have had this operation. Your doctor may be able to tell you if the risk of a complication is higher or lower for you.

1 Complications of anaesthesia

Your anaesthetist will be able to discuss with you the possible complications of having an anaesthetic.

2 General complications of any operation

- Pain can be severe with this operation. The healthcare team will give you strong painkillers either by an epidural or through the drip. It is important that you take the medication as you are told so you can move about and cough freely.

- Bleeding during or after the operation (risk: 1 in 20). You will usually need a blood transfusion and you may need another operation.
- Infection of the surgical site (wound) (risk: 1 in 30). It is usually safe to shower after two days but you should check with the healthcare team. Let the healthcare team know if you get a high temperature, notice pus in your wound, or if your wound becomes red, sore or painful. An infection usually settles with antibiotics but you may need another operation.
- Unightly scarring of your skin.
- Blood clot in your leg (deep-vein thrombosis – DVT). This can cause pain, swelling or redness in your leg, or the veins near the surface of your leg to appear larger than normal. The healthcare team will assess your risk. They will encourage you to get out of bed soon after the operation and may give you injections, medication, or special stockings to wear. Let the healthcare team know straightaway if you think you might have a DVT.
- Blood clot in your lung (pulmonary embolus), if a blood clot moves through your bloodstream to your lungs. If you become short of breath, feel pain in your chest or upper back, or if you cough up blood, let the healthcare team know straightaway. If you are at home, call an ambulance or go immediately to your nearest Emergency department.

3 Specific complications of this operation

- Graft failure caused by a blockage (risk: 1 in 50). The risk is higher if an aorto-bifemoral graft is used.
- Infection of the graft (risk: 1 in 100). You may develop an abnormal connection between your aorta and your bowel (aorto-enteric fistula). This is life-threatening and difficult to treat. Have a bath or shower before the operation to wash your abdomen and groins to reduce this risk.
- Weakening at the bypass graft join, which can cause a false aneurysm (risk: 1 in 100 in 10 years). This is a potentially dangerous swelling and you may need another operation to repair it.
- Abdominal pain and bleeding resulting in a narrowed bowel, caused by there not being enough blood supply to your bowel (ischaemic colitis). You may need another operation (risk: 1 in 50).

- Blocking of your leg arteries caused by the abnormal lining of the aneurysm (distal embolism) (risk: 1 in 25). This can usually be treated but you may need a small operation called an embolectomy. If it cannot be treated, you may need part of your leg amputated (risk: 1 in 50).
- Chest infection (risk: 1 in 20). Deep breathing before and after the operation will help to prevent a chest infection. If you smoke, stop smoking now.
- Severe kidney damage (risk: 1 in 20). You may need to have dialysis treatment to do the work of your kidneys.
- Heart attack (where part of the heart muscle dies) (risk: 1 in 20). This can sometimes cause death.
- Nerve damage and paralysis, if the blood supply to the nerves of your spinal cord gets damaged (spinal cord ischaemia) (risk: 1 in 400).
- For men, problems having an erection because of damage to arteries and nerves (risk: 6 in 10).
- Developing a hernia in the scar caused by the deep muscle layers failing to heal (risk: 1 in 20 in four years). This appears as a bulge or rupture called an incisional hernia. If this causes problems, you may need another operation.
- Death (risk: 1 in 20 for a planned operation, 1 in 2 for an emergency operation to repair a burst aneurysm).

How soon will I recover?

• In hospital

After the operation you will be transferred to the intensive care unit or high dependency unit for a few days, so the healthcare team can monitor you more closely. You will then go to the ward. You will be given fluid through the drip. The healthcare team will use the central line to monitor the pressure of blood returning to your heart. This will help your doctor to know how much fluid to give you.

You should gradually improve over the next few days and the healthcare team will encourage you to get out of bed and move about.

The drains, drips and catheter will usually be removed after two to five days.

Within a week you should begin to eat a normal diet and be able to move about.

You should be able to go home after 8 to 10 days. However, your doctor may recommend that you stay a little longer.

If you are worried about anything, in hospital or at home, contact the healthcare team. They should be able to reassure you or identify and treat any complications.

• **Returning to normal activities**

To reduce the risk of a blood clot, make sure you follow carefully the instructions of the healthcare team if you have been given medication or need to wear special stockings.

Your surgeon will tell you when you can return to work. You will usually need about three months off work to recover.

Your doctor may tell you not to do any manual work for a while. Do not lift anything heavy for at least six weeks.

Regular exercise should help you to return to normal activities as soon as possible. Before you start exercising, ask the healthcare team or your GP for advice.

Do not drive until you are confident about controlling your vehicle and always check your insurance policy and with your doctor.

• **The future**

Most people make a full recovery. It may take up to three months to get back to normal.

Summary

An abdominal aortic aneurysm is an enlargement of your aorta caused by weakness of its wall. Surgery can be life-threatening. However, the risk of a serious complication from surgery is lower compared to the risk of death caused by the aneurysm bursting. You need to know about the complications to help you to make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.

Keep this information leaflet. Use it to help you if you need to talk to a healthcare professional.

Acknowledgements

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