

# Abdominal Aortic Aneurysm (AAA) Surgery

## *Preparing for surgery*

### What is an abdominal aortic aneurysm (AAA)?

The **aorta** is your largest artery. It carries oxygen-rich blood from your heart to the rest of your body. It travels from your heart down through your belly (abdomen) before splitting into smaller arteries that go to your legs.

An **aneurysm** is a weakened section of an artery. The pressure of blood flowing through the artery makes the weak section bulge out like a balloon. An aneurysm in the part of the aorta that goes through the belly is called an **abdominal aortic aneurysm**, or **AAA**.

### What can happen with an AAA?

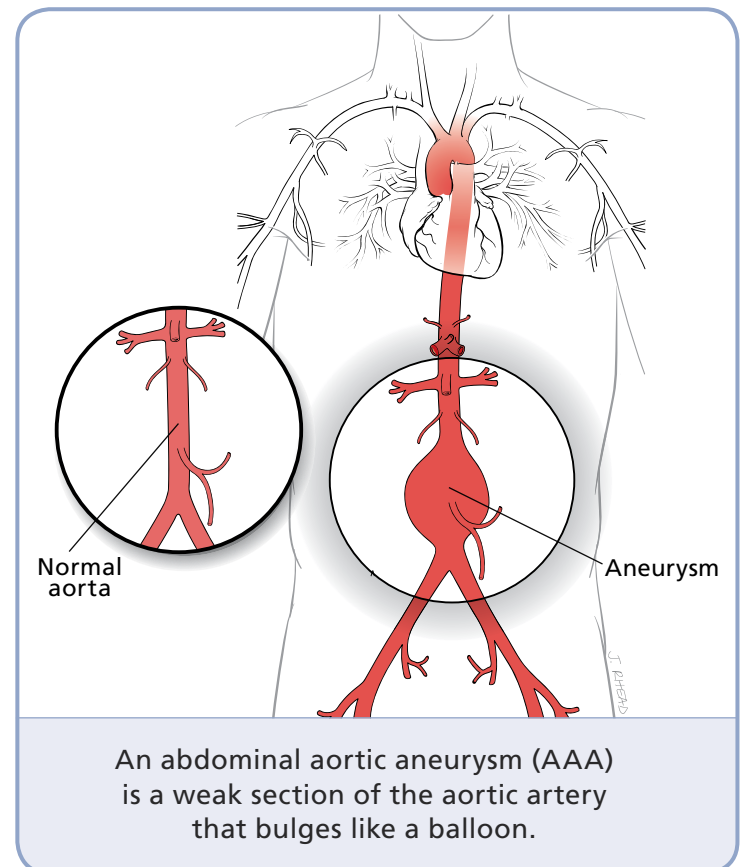
An AAA rarely causes symptoms. In some cases, it can cause a pulsing sensation in the belly or pain in the belly, chest, or back.

Even if it doesn't cause symptoms, an **aortic aneurysm** is **very dangerous** if it's large or it's growing. If it **ruptures (bursts)**, it can cause bleeding. If an AAA ruptures, you can die within minutes.

### Why do I need surgery?

If your **AAA is large (over 2 inches across) or growing rapidly, it should be repaired**. It can be repaired using a nonsurgical procedure called endovascular aneurysm repair (EVAR), or through open abdominal surgery.

In **open abdominal surgery**, a large incision (cut) is made in your belly. The weak area of the aorta is replaced with a **graft**. A graft is a tube of man-made surgical material.



An abdominal aortic aneurysm (AAA) is a weak section of the aortic artery that bulges like a balloon.

EVAR is only recommended in certain cases. Your doctor may recommend an EVAR procedure if:

- You don't have a section of artery long enough to hold a stent graft in place.
- You aren't able or willing to have the follow-up tests needed every year after an EVAR procedure.
- Your surgery may be an emergency procedure. This is when the aneurysm has ruptured or is close to bursting.

## How do I prepare for surgery?

- **Tell your doctor about any allergies you have and make a list of all medicines you take.** Be sure to include all vitamins, over-the-counter remedies, and herbal supplements that you take.
- **Follow instructions from your doctor concerning your medicines.** You may have to stop taking some medicines, especially blood thinners, for a week or more before the surgery. These include medicines such as warfarin (Coumadin), anti-inflammatories (ibuprofen, Advil, Aleve, aspirin), and some herbal supplements.
- **Go to all appointments for presurgery tests,** including blood tests, x-rays, and tests of your heart and lungs.
- **Do not eat or drink anything after midnight (11:00 PM) the night before your surgery.** If you need to take medicines, take them with a sip of water.

- **Take any medicine you may be given to clean out your bowels.** After taking the medicine, you will use the bathroom quite a few times. At the end of the process, your bowel movements should be clear. Tell your nurse when you arrive at the hospital if this has not happened.
- **Avoid smoking or drinking alcohol.**
- **Take a shower the night before or the morning you come to the hospital.** You may be given a special soap to use to help prevent infection.

## What happens during the surgery?

Surgery to repair an AAA usually takes 3 to 4 hours. Here's what happens:

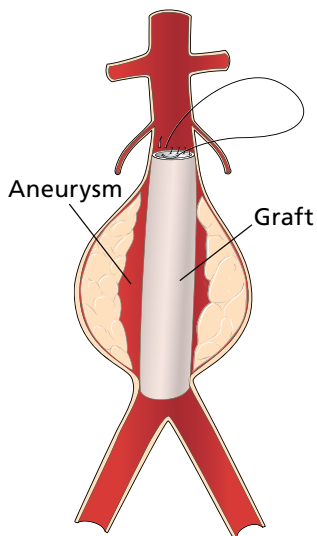
- **You will be given general anesthesia.** This is medicine that will make you sleep through the procedure. You won't feel anything and won't remember it afterward.

## Talking with your doctor about an AAA surgery

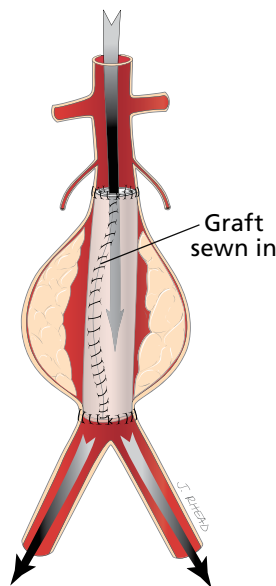
The table below lists the most common potential benefits, risks, and alternatives for surgery to repair an abdominal aortic aneurysm (AAA). There may be other benefits or risks in your unique medical situation. Talking with your doctor is the most important part of learning about these risks and benefits. If you have questions, be sure to ask.

Potential benefits	Risks and potential complications	Alternatives
AAA surgery can relieve the pressure on an abdominal aortic aneurysm and greatly reduce the risk of rupture.	Risks and potential complications are listed below: <ul style="list-style-type: none"><li>• Problems that can happen with any surgery. These include infection, bleeding that requires a blood transfusion, blood clots, or reactions to general anesthesia (including vomiting, trouble urinating, sore throat, cut lips, headache, heart problems, stroke, or pneumonia).</li><li>• Injury to internal organs (liver, stomach, intestines, kidneys, bladder, uterus, or ovaries).</li><li>• Injury to the spinal cord or nerves. This could harm leg sensation or movement, impair ejaculation or erection, or cause other problems.</li><li>• Death (extremely rare).</li></ul> <b>Complications are rare.</b> However, the risk may be higher if the surgery is done in an emergency (because an aneurysm has burst) or if you have heart disease, lung disease, cancer, or a history of stroke.	Alternatives to surgery include: <ul style="list-style-type: none"><li>• Watching and waiting, with regular tests to see how large your aneurysm is and how fast it's growing. (If surgery is recommended, it may be too late for this.)</li><li>• An EVAR procedure to place a stent that lines the weakened section of aorta.</li></ul>

**1** In surgery, the doctor places a graft to line the aorta.



**2** After surgery, blood flows freely through the graft.



- The surgeon will make an incision (cut) in your belly, about 5 to 6 inches long. Then the surgeon will:
  - Place 2 clamps on the aorta, 1 above the aneurysm and 1 below it. This temporarily shuts off the blood flow.
  - Open the weakened section of aorta and sew the graft above and below the aneurysm. The graft is made of a strong, flexible material. It takes the place of the weakened section of aorta.
  - Remove the clamps so the blood can flow again.
  - Wrap the walls of the blood vessel around the graft and sew them into place.
  - Close the incision with stitches. You will then be moved to the recovery area.

- You will have a breathing tube. It will be taken out as soon as you can breathe safely on your own.
- You will be connected to a heart monitor and other tubes. As you recover and improve, these monitors and tubes will be removed one by one.
- You'll move from the ICU to a regular hospital room as soon as your doctor feels your condition is stable and improving.
- Your healthcare providers will manage your pain. You may have an epidural (a catheter/tube that delivers medicine) in your back for pain control. This is usually taken out after a few days. Then you will change to pain pills.
- You will not be allowed to eat or drink for a few days. Your doctor may allow you to have sips of water with your medicines. Once you are passing gas and having bowel movements, you'll be able to start eating.

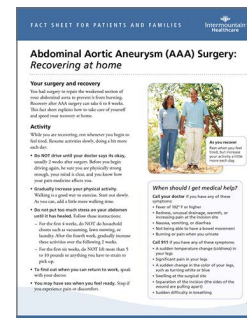
- You will get out of bed and walk several times a day, and sit up in a chair as much as possible.
- Your nurse will check your feet often to make sure the blood is circulating. You might also have a test that compares the blood pressure in your arm with the blood pressure in your ankle.
- Your doctor or nurse will change your dressing (the bandage on your incision) 1 to 3 days after the surgery.

As soon as your doctor feels you are ready, you'll be discharged to finish your recovery at home.

## What can I expect when I go home?

Recovery after AAA surgery can take 6 to 8 weeks. When you are ready to go home from the hospital, your nurse will give you a full set of instructions. You may receive the

Intermountain fact sheet *Abdominal Aortic Aneurysm (AAA) Surgery: Recovery at Home*. This fact sheet explains what you need to do.



## What happens after the surgery?

You will stay in the hospital for 4 to 5 days. Here's what to expect:

- Right after surgery, you will be taken to the intensive care unit (ICU). Staff will watch you closely. When you are stable, your family can visit you.
- You may be swollen from fluids given during surgery.

