

Abdominal Aortic Aneurysm (AAA) Surgery

Preparing for surgery

What is an abdominal aortic aneurysm (AAA)?

The aorta [ay-OR-tuh] 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 [AN-yur-is-m] 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?

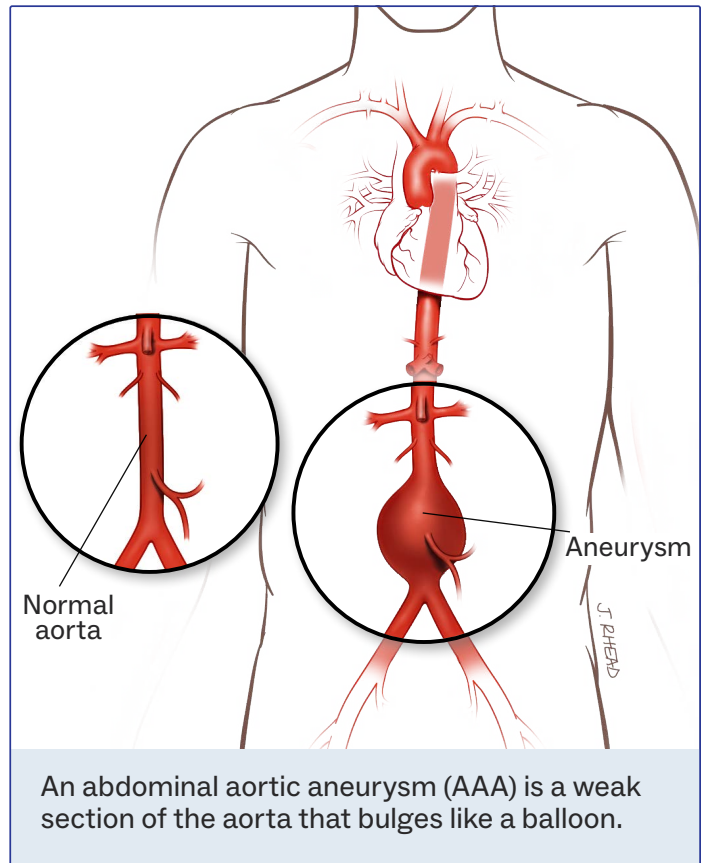
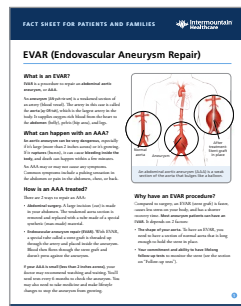
An AAA rarely causes symptoms. In some cases, it can cause a pulsing sensation in the belly or pain in the belly, chest, or back.

Even if it doesn't cause symptoms, an aortic aneurysm is very dangerous if it's large or 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 [en-doe-VASS-cue-lar] aneurysm repair (EVAR), or through open abdominal surgery.

EVAR is only recommended in certain cases. To learn more about EVAR, ask your doctor for a copy of the Intermountain *EVAR Repair* handout.



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

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 tube of tough, man-made, surgical material.

Your doctor may recommend open surgery 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 is an emergency procedure. This is when the aneurysm has ruptured or is close to bursting.

How do I get ready?

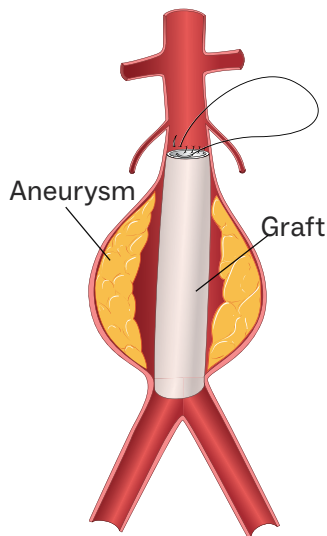
- Tell your doctor about any allergies you have and make a list of all medicines you take.** Be sure to include all prescriptions, over-the-counter medicines (such as cough syrup or allergy pills), inhalers, vitamins, and herbal remedies.
- Follow instructions from your doctor concerning your medicines.** You may have to stop taking some medicines for a week or more before the surgery. These include medicines such as warfarin (Coumadin) or other anticoagulants, anti-inflammatories (ibuprofen, Advil, Aleve, aspirin), and some herbal remedies.
- Go to all appointments for presurgery tests,** including blood tests, x-rays, and tests of your heart and lungs.
- Follow all instructions on when to stop eating and drinking before your surgery.** This will help prevent possible problems with the anesthesia.
- 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. When you arrive at the hospital, tell your care team if this has not happened.
- Avoid smoking or drinking alcohol.**
- Take a shower the night before and/or the morning before you come to the hospital.** You may be given a special soap to use to help prevent infection.

What are the possible risks and benefits of AAA surgery

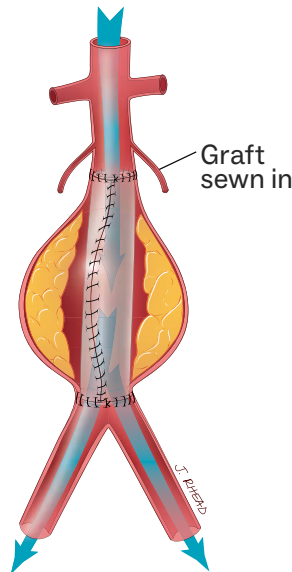
The table below lists the most common possible benefits, risks, and alternatives for AAA surgery. There may be other benefits or risks in your unique medical situation. Talk with your doctor to learn more about these benefits and risks. Be sure to ask any questions you may have.

| Possible benefits | Risks and possible complications | Alternatives |
|--|--|---|
| AAA surgery can relieve the pressure on an abdominal aortic aneurysm and greatly reduce the risk of rupture. | <p>Risks and potential complications include:</p> <ul style="list-style-type: none"> • 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). • Injury to internal organs (liver, stomach, intestines, kidneys, bladder, uterus, or ovaries). • Injury to the spinal cord or nerves. This could harm leg sensation or movement, impair ejaculation or erection, or cause other problems. • Death (extremely rare). <p>Complications are rare. 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.</p> | <p>Alternatives to surgery include:</p> <ul style="list-style-type: none"> • 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.) • An EVAR procedure to place a stent that lines the weakened section of aorta. |

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



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



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 may be swollen from fluids given during surgery.**
- **You will have a breathing tube.** It will be taken out as soon 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.** You may be allowed 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 happens during 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.
- **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.

