



Endovascular Repair of Abdominal Aortic Aneurysms

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Endovascular repair is a preferred treatment for many people with an abdominal aortic aneurysm (AAA), and an alternative for some who do not qualify for open surgery.

How an AAA is repaired varies depending on location, which then classifies the procedure as either STANDARD or COMPLEX. (Refer to "Description" below.)

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Why It's Done

Endovascular repair is less invasive than open surgery because it avoids a large incision in your abdomen or chest; only very small incisions are required. That means you are able to recover more quickly.

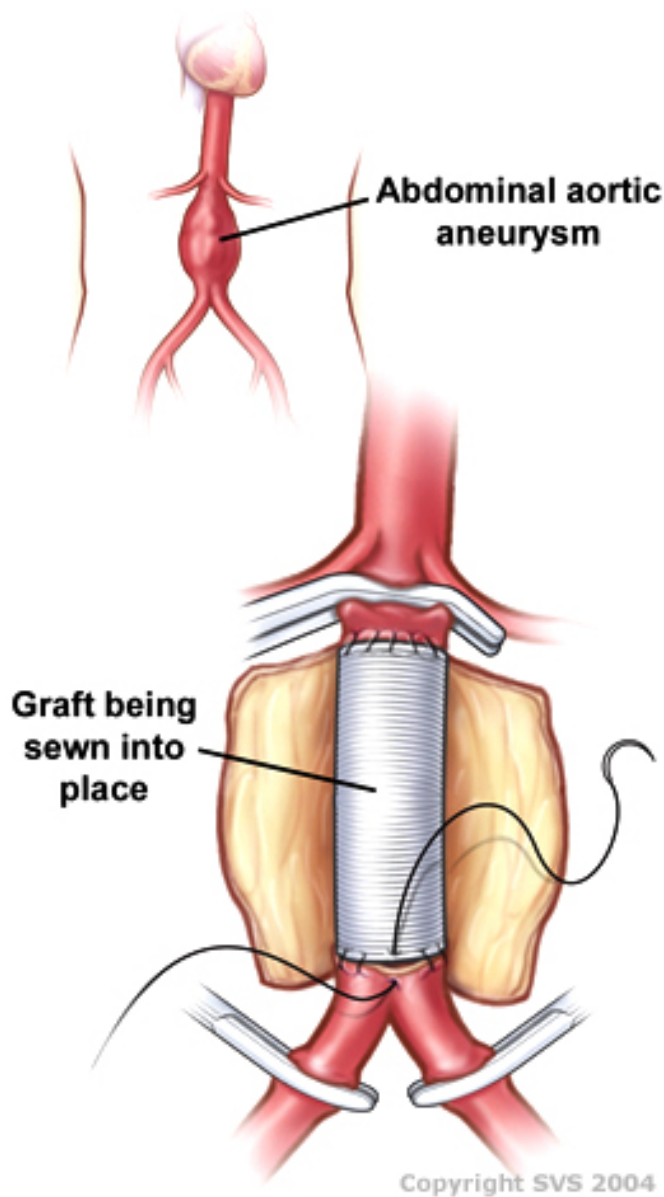
Description

In deciding whether to recommend repair your surgeon will consider the size of the aneurysm, its location, how fast it is

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Published on Society for Vascular Surgery (<https://vascular.org>)

growing, how complicated it is to repair and your overall health.



arteries to the kidney: **STANDARD** repair for an aneurysm located below the

- Through a needle puncture or small incision in one or both of your groin arteries and guided by X-ray images, a thin tube (catheter) is inserted and advanced to the aneurysm site.
- A guide wire and an expandable stent graft (a fabric-covered wire frame) are advanced through the thin tube.
- When positioned correctly, the stent graft is allowed to expand within the artery. The wire frame pushes against the healthy portion of the aorta to seal the device in place.
- Once in place, blood flows through the stent graft and cannot enter the aneurysm.
- Some patients may also require a puncture or small incision into an artery in the upper arm.
- The procedure usually takes 1.5–2.5 hours and most patients leave the hospital in 1–5 days.

COMPLEX repair for an aneurysm affecting one or more of the important arteries that branch off the aorta:

- Following the same steps as above, a different type of graft is placed.
- A fenestrated graft gets its name from tiny cutouts that allow the graft to flex and align with the branching of arteries, and also be modified to accommodate your specific anatomy.
- It is important that the graft fit your anatomy. Sometimes a standard commercially manufactured, FDA-approved device can be used. If you are not eligible for a standard device, you may qualify for a research device that is custom-made specifically for you.
- The procedure usually takes from 3–8 hours.

Risks

- There is less risk of developing lung, heart or abdominal problems during or after surgery.
- There is less risk developing an infection.

How to Prepare

IMAGING TESTS MAY BE NEEDED

- An abdominal ultrasound is painless, cost-effective, safe and the most frequently utilized test to screen for and measure the size of the AAA.
- Computed tomographic angiography (CTA) will assess for aneurysm extent, size and location. This study requires exposure to radiation and injection of an intravenous contrast agent. However, a CTA will provide valuable anatomic information and help your vascular surgeon determine the optimal type of repair.

Staying Healthy

If you have an aortic aneurysm it is important to do all you can to stay healthy.

- Stop smoking. Ask your vascular surgeon to help you find a smoking cessation program that will work for you.
- Exercise regularly.
- Carefully manage your blood pressure and cholesterol levels.
- Take a daily anti-platelet medicine (aspirin) and cholesterol-reducing medicine (statin).

