

# Abdominal Aortic Aneurysm (AAA)

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

The aorta is the largest blood vessel in the body. It leads from the heart to the lower abdomen where it branches into two arteries, one going down each leg. When part of the wall of the artery gets weak, the blood vessel can bulge out. When this happens it is called an aneurysm. If the aneurysm keeps getting bigger, the wall of the aorta may rip open, or rupture. Sudden ruptures often end in death. Having an abdominal aortic aneurysm (AAA) has become more common, mostly in older adults.

## How does it occur?

Atherosclerosis is the most common cause of AAA. Atherosclerosis is also called hardening of the arteries. Fat, cholesterol, calcium, and other substances from the blood build up inside the walls of the arteries. This buildup is called plaque. Plaque makes the wall of the aorta weaker and the pressure from the flow of blood can make the wall start to bulge. High blood pressure may speed up the process, but it is not the cause. Aneurysms tend to run in families. Aneurysms get worse faster in smokers than in nonsmokers. Smokers are more likely to die from ruptured aneurysms than nonsmokers.

## What are the symptoms?

AAA may not cause symptoms for a long time. Some people have a mild stomachache, back pain, or groin pain, but most people have very few complaints. Sudden, very severe abdominal or back pain may mean that the aorta has burst. When that happens it is an emergency.

## How is it diagnosed?

Most abdominal aortic aneurysms are diagnosed by a healthcare provider during a routine exam. AAA can be felt as a soft lump that pulses with each heartbeat. The larger the size of the aneurysm, the greater the risk that it will leak or burst. Ultrasound scans, CAT scans, and MRI scans can measure the size of the aneurysm. An angiogram may also be done.

## How is it treated?

Aneurysms less than 2 to 2 and one-quarter inches across need to be checked regularly. If you are in good health except for having the aneurysm and have no symptoms, you may not need surgery. Surgery usually is best for aneurysms that cause symptoms or are bigger than 2 and one-quarter inches. One type of surgery is called aneurysmectomy and grafting. In this procedure, the surgeon opens the abdomen, takes out the aneurysm, and replaces it with a man-made patch (Dacron graft). The hospital stay is usually less than 10 days and recovery is usually complete in 4 to 6 weeks. Another method to fix AAA is called endovascular grafting. A narrow, flexible tube (catheter) is put through a blood vessel in the groin. At the tip of the tube is a deflated balloon covered by a tightly wrapped Dacron graft. Once the catheter is in the right place, the balloon is inflated and the graft

opens. The graft is longer than the area of the aneurysm and sticks to the inside of the artery wall, removing the danger of rupture. This method is used only for non-emergency repair. Your healthcare provider will help you know which procedure is right for you.

### **What are the results of surgery for AAA?**

Successful surgery for AAA usually results in full recovery. Abdominal aneurysms generally do not come back and people with AAA are not at high risk for getting aneurysms in other parts of the body. Emergency repair of a leaking or ruptured AAA often has complications, a longer recovery time, and a high death rate.

Your provider will talk with you about lifestyle changes such as quitting smoking. You may need to keep taking medicines for high blood pressure. Contact your provider if you have any new abdominal symptoms.

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Published by RelayHealth.

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