

Abdominal aortic aneurysm

Symptoms and causes

By Mayo Clinic Staff

Symptoms

Abdominal aortic aneurysms often grow slowly and usually without symptoms, making them difficult to detect. Some aneurysms will never rupture. Many start small and stay small, although many expand over time. Others expand quickly. Predicting how fast an abdominal aortic aneurysm may enlarge is difficult.

As an abdominal aortic aneurysm enlarges, some people may notice:

- A pulsating feeling near the navel
- Deep, constant pain in your abdomen or on the side of your abdomen
- Back pain

If you have any of these signs and symptoms, such as sudden severe back or abdominal pain, get immediate emergency help.

When to see a doctor

You should see your doctor if you have any of the symptoms listed above. The recommendations below are for those who have no symptoms.

Because being male and smoking significantly increase the risk of abdominal aortic aneurysm, men ages 65 to 75 who have ever smoked cigarettes should have a screening for abdominal aortic aneurysms using abdominal ultrasound. If you are a man between ages 65 and 75 and you have never smoked, your doctor will decide on the need for an abdominal ultrasound, usually based on other risk factors, such as a family history of aneurysm. Those with a family history of aneurysm may have an ultrasound at age 60.

There isn't enough evidence to determine whether women ages 65 to 75 who have ever smoked cigarettes or have a family history of abdominal aortic aneurysm would benefit from abdominal aortic aneurysm screening. Ask your doctor if you need to have an ultrasound

screening based on your risk factors. Women who have never smoked generally don't need to be screened for the condition.

Causes

Most aortic aneurysms occur in the part of your aorta that's in your abdomen. Although the exact cause of abdominal aortic aneurysms is unknown, a number of factors may play a role, including:

- **Tobacco use.** Cigarette smoking and other forms of tobacco use appear to increase your risk of aortic aneurysms. Smoking can be damaging to the aorta and weaken the aorta's walls.
- **Hardening of the arteries (atherosclerosis).** Atherosclerosis occurs when fat and other substances build up on the lining of a blood vessel. This condition may increase your risk of an aneurysm.
- **High blood pressure.** High blood pressure can increase your risk of abdominal aortic aneurysms as it can damage and weaken the aorta's walls.
- **Blood vessel diseases in the aorta.** Abdominal aortic aneurysms can be caused by diseases that cause blood vessels to become inflamed.
- **Infection in the aorta.** Infections, such as a bacterial or fungal infection, may rarely cause abdominal aortic aneurysms.
- **Trauma.** Trauma, such as being in a car accident, can cause abdominal aortic aneurysms.
- **Heredity.** In some cases, abdominal aortic aneurysms could be hereditary.

Aneurysms can develop anywhere along the aorta, but when they occur in the upper part of the aorta, in the chest, they are called thoracic aortic aneurysms. More commonly, aneurysms form in the lower part of your aorta and are called abdominal aortic aneurysms. These aneurysms may also be referred to as AAA.

Risk factors

Abdominal aortic aneurysm risk factors include:

- **Age.** Abdominal aortic aneurysms occur most often in people age 65 and older.
- **Tobacco use.** Tobacco use is a strong risk factor for the development of an abdominal aortic aneurysm and a higher risk of rupture. The longer you've smoked or chewed tobacco and the more cigarettes you smoked per day, the greater your risk.
- **Being male.** Men develop abdominal aortic aneurysms much more often than women do.
- **Being white.** People who are white are at higher risk of abdominal aortic aneurysms.
- **Family history.** People who have a family history of abdominal aortic aneurysms are at increased risk of having the condition.

- **Atherosclerosis.** Atherosclerosis — the buildup of fat and other substances that can damage the lining of a blood vessel — increases your risk of an aneurysm.
- **Other aneurysms.** People who have an aneurysm in another large blood vessel, such as the artery behind the knee or the thoracic aorta in the chest, may have a higher risk of developing an abdominal aortic aneurysm.
- **High blood pressure.** High blood pressure may increase your risk of developing an abdominal aortic aneurysm.

Complications

Tears in one or more of the layers of the wall of the aorta (aortic dissection) or a ruptured aortic aneurysm are the main complications of abdominal aortic aneurysms. A ruptured aortic aneurysm can lead to life-threatening internal bleeding. In general, the larger the aneurysm and the faster the aneurysm grows, the greater the risk of rupture.

Signs and symptoms that your aortic aneurysm has ruptured may include:

- Sudden, intense and persistent abdominal or back pain, which can be described as a tearing sensation
- Pain that radiates to your back or legs
- Sweatiness
- Clamminess
- Dizziness
- Nausea
- Vomiting
- Low blood pressure
- Fast pulse

Another complication of aortic aneurysms is the risk of blood clots. Small blood clots can develop in the area of the aortic aneurysm. If a blood clot breaks loose from the inside wall of an aneurysm and blocks a blood vessel elsewhere in your body, it can cause pain or block the blood flow to the legs, toes, kidneys or abdominal organs.