

Thoracoabdominal Aortic Aneurysm

What is a Thoracoabdominal Aortic Aneurysm?

A **thoracoabdominal aortic aneurysm** is a ballooning in the wall of the aorta extending from your chest into your abdomen (stomach area). The **aorta** is the main blood vessel in your body. It supplies blood from the heart to the rest of your body. A thoracoabdominal aortic aneurysm can tear or burst, which can cause life-threatening, uncontrolled bleeding.

What are the symptoms of a Thoracoabdominal Aortic Aneurysm?

- Severe or dull pain in abdomen (stomach area), chest, lower back or groin
- Sharp, sudden pain in the back or abdomen

What causes a Thoracoabdominal Aortic Aneurysm?

The exact cause of a thoracoabdominal aortic aneurysm is unclear. Factors that can increase your risk include:

- Smoking
- Older age
- Male gender
- High cholesterol
- High blood pressure
- Hardening of the arteries (atherosclerosis)
- A family history of aneurysms

How is a Thoracoabdominal Aortic Aneurysm diagnosed?

To detect a thoracoabdominal aortic aneurysm, there are multiple tests that your doctor can order. These may include:

- Ultrasound - produces images of the inside of your body.
- Computerized Tomography Scan (“CT” or “CAT” scan)- is an x-ray that can

see parts of your body that cannot be seen on regular x-rays.

- Magnetic Resonance Imaging (MRI)- provides a detailed picture of your heart and vessels. It also reveals how well your heart is functioning

How is a Thoracoabdominal Aortic Aneurysm treated?

If you have a thoracoabdominal aortic aneurysm, surgery is only recommended when the width of the aneurysm is greater than 5cm in women and 5.5cm in men. If your aneurysm is smaller than 5.5cm, your doctor will recommend medical monitoring. This will include regular appointments to make sure your aneurysm isn't growing and managing other medical conditions you may have that could worsen your aneurysm.

An **exception to these guidelines** is an aneurysm that grows more than 1 cm in a year. In this situation, your doctor will discuss an individual decision with you during your appointment.

Surgery options include:

- **Open surgical repair**

Open surgical repair involves making a cut in your abdomen (stomach area) to gain access to the aneurysm. The damaged section of your aorta is removed and replaced with a synthetic tube (known as graft). The graft, typically made of Dacron[®] or Gore-Tex[®], is sewn into place.

- **Hybrid repair with abdominal debranching**

Hybrid repair is a two-part procedure:

- **Stage 1: De-branching**

This involves surgery in the abdomen to expose the aorta. Using a synthetic tube (graft), the blood vessels of the intestines and kidneys are connected to the iliac arteries (the arteries in the abdomen where the aorta branches into two). These vessels are then no longer connected to the aorta directly. This surgery is called an open abdominal surgical repair.

- **Stage 2: Endovascular aneurysm repair**

During the same admission or a few weeks later, another surgery in the chest is done. This is called a thoracic endovascular aortic repair (TEVAR). This procedure treats the aneurysm in the upper part of your aorta. TEVAR is a minimally invasive surgery (a surgery with small cuts and tiny surgical tools). With TEVAR, a device called a stent graft (a metal frame covered in fabric) is used to support the aneurysm.

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