

Suspected Thoracic Aortic Aneurysm

Thoracic aortic aneurysm (TAA) is an increase in size of the aorta, a large main artery leading away from the heart in the chest. Patients with a TAA do not usually have symptoms, but some experience chest or back pain.

When TAA is suspected, both CT angiography (CTA) (<https://www.radiologyinfo.org/en/info/angiocr>) and MR angiography (MRA) (<https://www.radiologyinfo.org/en/info/angiomr>) are appropriate to determine the size of the aorta and to assess other problems with the blood vessels in the chest. CTA always uses contrast; MRA is typically done with intravenous contrast but can also be done without contrast for people in whom contrast should not be used.

Several tests may be appropriate. These include a chest x-ray (<https://www.radiologyinfo.org/en/info/chestrad>), which is often done in the urgent care setting. Chest CT (<https://www.radiologyinfo.org/en/info/chestct>) without contrast can show the size of the blood vessels and any abnormal calcium deposits. It can also show that there is no aneurysm, but it does not give as much detail as a CTA.

Echocardiography is a specialized ultrasound test that can show parts of the thoracic aorta and may be appropriate when a TAA is suspected. The ultrasound probe can either be placed noninvasively on the chest (transthoracic) or be placed within the esophagus (transesophageal) on a specialized device to acquire the images.

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