

Smoking is a known risk factor for development of thoracic aortic aneurysm as it leads to atherosclerosis and degeneration of the connective tissue of the aorta.

## Connective Tissue Disorders

### [Connected Tissue-Boxes](#)

Connective tissue disorders such as Ehlers-Danlos syndrome and Marfan syndrome are risk factors for development of thoracic aortic aneurysms. Connective tissue disorders result in a weakened, less elastic vessel wall from cystic medial necrosis, resulting in an increased propensity for aneurysm formation.

## Vasculitis

### [Blood-vessels on Fire](#)

Vasculidities such as Takayasu arteritis and giant cell arteritis lead to inflammation within the connective tissue of the aorta leading to degeneration and predisposing the patient to developing an aneurysm. Infectious causes of vasculitis like obliterative endarteritis secondary to tertiary syphilis is also an etiology.

## Diagnosis

### Chest X-Ray

#### [Chest X-Ray](#)

Though not sufficient in definitively establishing a diagnosis, chest x-ray findings of a widened mediastinum or enlarged aortic knob may raise suspicion for a thoracic aortic aneurysm.

### Chest CT Angiography

#### [Cat-angel](#)

To establish a definitive diagnosis of thoracic aortic aneurysm, a chest CT angiography is most useful as it involves the use of intravenous contrast dye which allows for sufficient visualization of the aorta.

## Management

### Manage Risk Factors

#### [Manager by Risk Factors](#)

An essential part of the management of thoracic aortic aneurysm is the management of underlying risk factors through measure such as controlling blood pressure and cholesterol and quitting smoking.

### Surgery if Rupture or Dissection

#### [Surgeon by A-orca Ruptured and Dissected](#)

Emergent surgical intervention is indicated in the event that a thoracic aortic aneurysm dissects or ruptures, as both conditions can be immediately life threatening.

### Observation if Asymptomatic

#### [Observatory with Thumbs Up](#)

For the majority of patients with a thoracic aortic aneurysm who are symptomatic, management consists of observation via serial imaging, typically with CT angiography or MR angiography.