

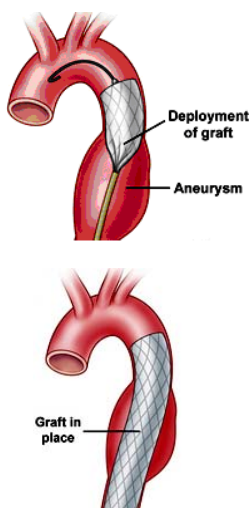
## The Changing Treatment of Thoracic Aortic Aneurysms

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In 2008 the FDA approved two new thoracic endografts bringing up to three the number of devices approved for the treatment of descending thoracic aneurysms. Aneurysms of the thoracic aorta (TAA) account for nearly 2,500 deaths per year mostly from rupture. They can result from infections, dissection, traumatic injuries or even inherited genetic disorders. The most common variety, however, is associated with degenerative atherosclerotic disease and occurs most frequently after the age of 65 with men affected slightly more than women. TAA can occur in the same patients who have aneurysms in the abdominal aorta.

Treatment of TAA traditionally involved a large incision in the chest with surgical replacement of the aorta when the size of the aneurysm exceeds 6 cm. The operation is a major procedure with mortality or death rates of 5 to 10 percent. Stroke or renal failure occurs in one of nearly 20 patients. Spinal cord ischemia with lower extremity weakness or paralysis, also called paraplegia, occurs in nearly 8 percent of patients and can only be reversed in half of them. Because of the high risk involved, the treatment is only offered to patients in good physical health to tolerate the intervention.



Since 2005, when the first thoracic endograft was approved in the United States, patients now have a less invasive option for the treatment of their TAA. The endograft is a tube of fabric reinforced with metallic stents that excludes the aneurysm from circulation. Studies of these grafts have so far shown a significant decrease in the complication rates after the treatment of TAA cutting them in half, allowing even older and sicker patients to receive treatment previously denied to them.

The last three years have seen a dramatic shift in the treatment of TAA from open surgical procedures to endovascular repair with stent-grafts and the trend is expected to continue with more technological advances on the horizon.

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