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A Guide for Patients:  
**Aortic Dissection**



Aortic dissection is a severe condition in which a tear develops in the inner layer of the body's main artery, the aorta. This tear causes blood to rush through, splitting the aorta's inner and middle layers. If the blood breaches the outer aortic wall, it is usually fatal. While this disease is rare, it is mostly seen in men who are in their 60s and 70s. Symptoms can mimic other illnesses, leading to delayed diagnosis. Early detection and treatment significantly increase survival chances.

## Symptoms

Symptoms of aortic dissection can resemble those of other heart issues, such as a heart attack. Common signs include:

- Sudden, intense chest or upper back pain, often described as tearing or ripping, which spreads to the neck or back
- Acute stomach pain
- Fainting
- Breathlessness
- Stroke-like symptoms, such as sudden vision problems, speech difficulty, or one-sided body weakness
- Weaker pulse in one arm or thigh compared to the other
- Leg discomfort or weakness
- Walking difficulty



Patients should discuss with their doctor any of the concerning symptoms listed here and ask if a referral to a vascular surgeon should be done.

## Talk to a Doctor

Patients should discuss with their doctor any of the concerning symptoms listed here and ask if a referral to a vascular surgeon should be done. **Early detection and prompt treatment are crucial for aortic dissection, so patients should seek medical attention as soon as symptoms arise.**

## Causes and Risks

Aortic dissection is classified into two types based on the location of the tear. **Type A dissections**, which are more common and severe, involve a tear in the aorta near the heart or in the upper aorta, known as the ascending aorta. This type of dissection can potentially extend into the abdomen. **Type B dissections** involve a tear in the lower portion of the aorta, known as the descending aorta. These can also extend into the abdomen.

Both types of aortic dissection pose significant risks, including the potential for life-threatening complications if not promptly treated.

## Role of Vascular Surgeon

For patients suffering from aortic dissections, vascular surgeons provide timely and appropriate diagnosis. They are educated and trained in endovascular and surgical intervention to repair the tear in

the aorta. This may involve open surgery or stents to repair the damaged artery and prevent further complications. Additionally, the vascular surgeon collaborates closely with other members of the healthcare team to ensure comprehensive care for the patient, including preoperative assessment, postoperative management, and long-term follow-up to monitor for any potential complications.

## Diagnosis

Diagnosing an aortic dissection typically involves a combination of medical history, physical examination, and diagnostic tests. Physicians often begin by assessing the patient's symptoms and medical history, paying close attention to any sudden or severe chest or back pain. A physical examination may reveal indications, such as differences in blood pressure between the arms or unequal pulses in the limbs. To confirm the diagnosis and determine the extent of the dissection, various imaging tests are used, including computed tomography



(CT) scans, magnetic resonance imaging (MRI), or echocardiography. These tests help visualize the structure of the aorta and identify any tears or abnormalities. Early and accurate diagnosis is crucial for initiating appropriate treatment and improving patient outcomes.

## Treatment

Treatment for aortic dissection aims to stabilize the patient's condition, relieve symptoms, prevent complications, and repair the damaged aorta, if possible. In most cases, emergency surgery is necessary, particularly for Type A dissections involving the ascending aorta. The surgical procedure typically involves replacing the damaged

portion of the aorta with a synthetic graft to restore normal blood flow. For Type B dissections, the approach may involve medications to control blood pressure and heart rate, in addition to close monitoring to prevent further complications.

In some cases, endovascular repair procedures, such as stent grafting, may be considered as an alternative to open surgery. The choice of treatment depends on various factors, including the extent and location of the dissection, the patient's overall health, and the presence of any complications. Prompt medical intervention is essential to improve the prognosis and prevent life-threatening complications associated with aortic dissection.

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