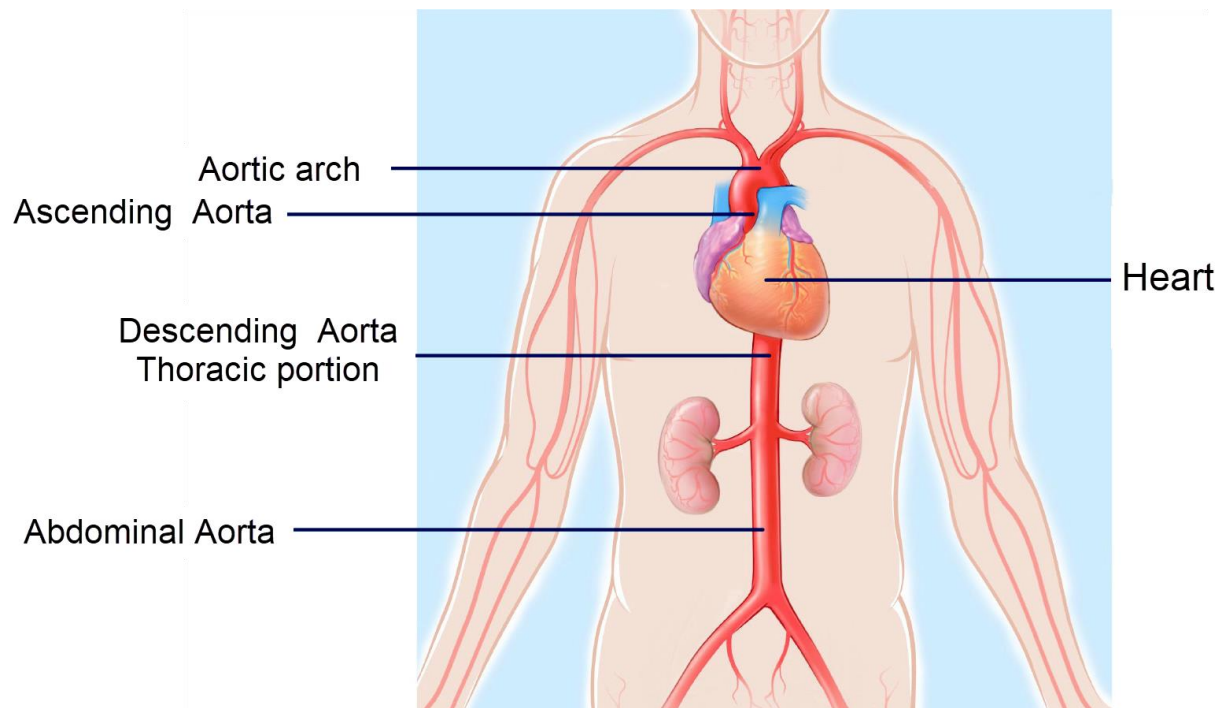


Aortic Dissection

What is aortic dissection?

An **aortic dissection** is a tear in the wall of the aorta. The **aorta** is the main blood vessel that carries blood away from your heart to the rest of your body. It comes out of the heart and curves around to your back and down into your **abdomen** (belly).

The aorta is divided into 3 sections: the **ascending aorta**, the **descending aorta**, and the **abdominal aorta**. You can see these sections in the picture below. A **dissection** (tear) can happen anywhere along this path.

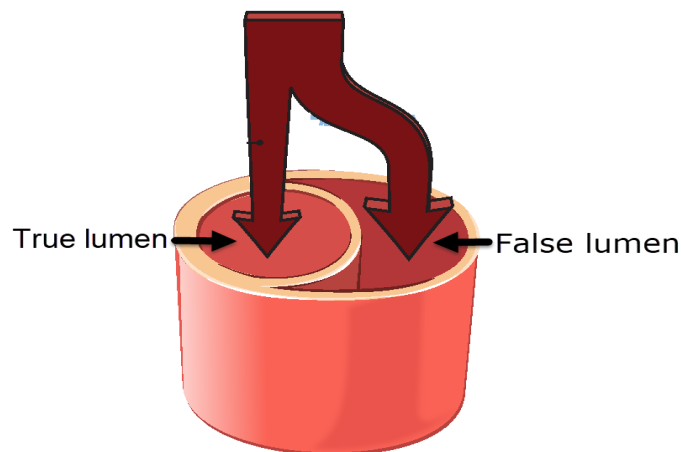


What happens during aortic dissection?

The aorta is shaped like a candy cane and is about as wide as a garden hose (1-1.5 inches). The wall of the aorta has 3 layers:

- **Inner layer** (intima)
- **Middle layer** (media)
- **Outer layer** (adventitia)

An aortic dissection happens when a tear occurs in the inner layer (intima) of your aorta. Blood leaks through the tear, causing the inner and middle layer to split (dissect). This creates two passages for blood: a **true lumen**, which is the normal passageway of blood, and a **false lumen**, the new passageway caused by the tear. The picture below shows a drawing of a dissection with the true and false lumen.

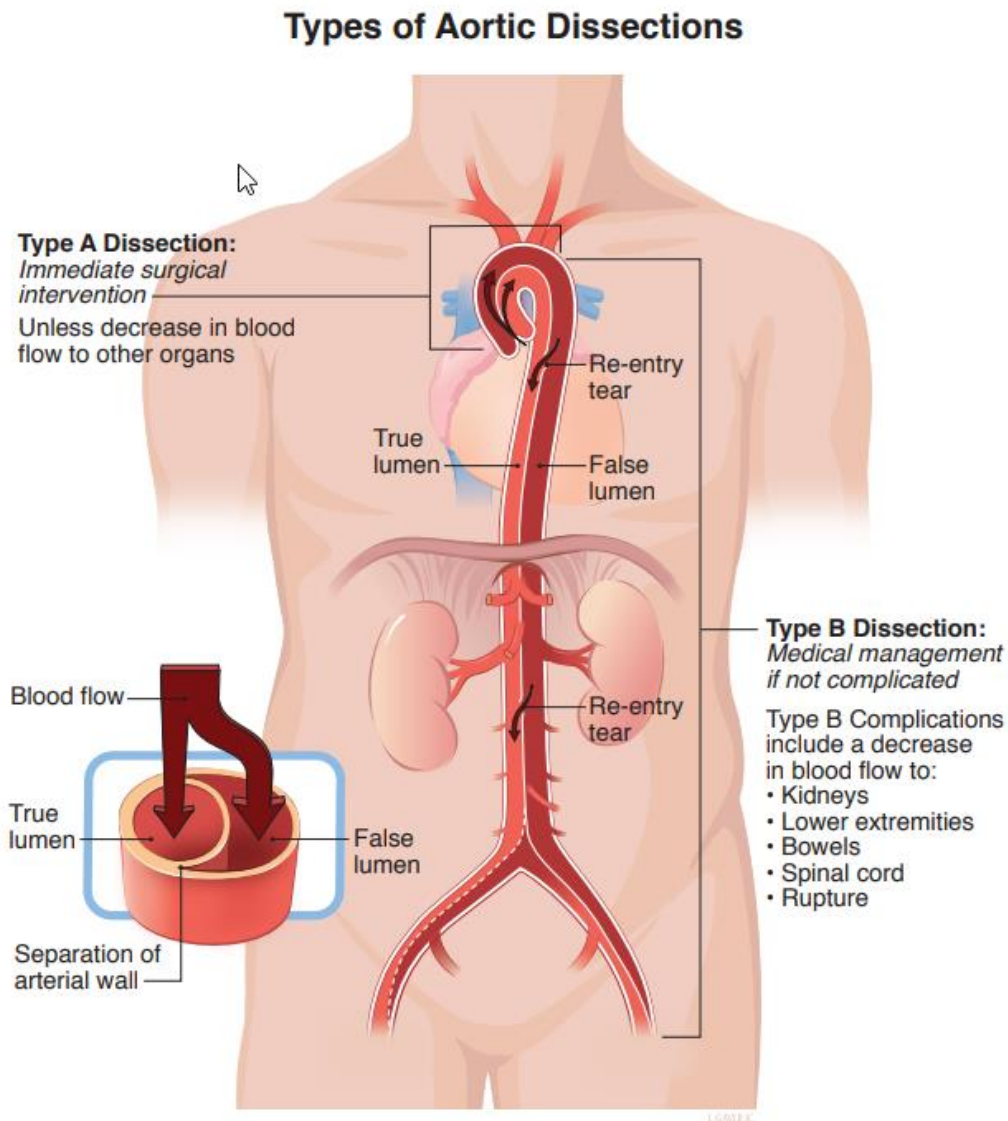


What are the different types of aortic dissections?

Aortic dissection types are based on where the tear is located.

- **Type A aortic dissection:** The tear starts in the upper aorta (ascending aorta) and continues throughout the blood vessel, often going as far as the arteries in the leg.
- **Type B aortic dissection:** The tear is in the lower aorta (descending aorta), and it may go into the abdomen.

The following picture shows Type A and Type B aortic dissections.



What causes an aortic dissection?

An injury or weakened area of the aorta's wall can cause this tear. Sometimes we don't know the exact cause of the tear.

What are the risk factors for aortic dissection?

- Family history of aortic aneurysms or aortic dissection
- Connective tissue disorders like Marfan syndrome or Ehlers-Danlos syndrome
- Uncontrolled high blood pressure
- Atherosclerosis (plaque that builds up and sticks on the inner walls of arteries)
- Blunt injury to your chest
- History of an aneurysm
- Being born with a problem affecting your aorta or aortic valve (such as having a bicuspid aortic valve)
- Having a condition that causes inflammation of your blood vessels, such as giant cell arteritis
- Smoking
- IV drug use

How is an aortic dissection treated?

Treatment may include surgery or medications, depending on the area of the aorta where the dissection is.

- **Type A aortic dissections** usually require emergency surgery to repair or replace the injured section of the aorta.
- **Type B aortic dissections** are often treated first with controlling your blood pressure. Your doctor will look at your dissection with a CT scan or MRI and watch for growth of the dissection over time. Your doctor will talk with you about surgery options if it becomes necessary.

How do I lower my risk of complications after my aortic dissection surgery?

It is important to stay healthy after your surgery. Following these guidelines can help lower your risk of complications (medical issues).

Do:

- Keep your blood pressure in a healthy range.
 - As a general rule, blood pressure numbers of 120/80 are considered normal and healthy. Your doctor can help you understand the blood pressure numbers that are right for you.
- Keep your body at a healthy weight for you.
- Get mild to moderate physical activity regularly, such as:
 - Walking
 - Biking
 - Swimming
 - Dancing
 - Light jogging
 - Stair climbing
- Eat a heart-healthy diet (like eating foods that are low in sodium, fat, and cholesterol).
- If you've had surgery before to repair (fix) your aortic aneurysm, take antibiotics before any dental procedure (any medical work on your teeth) or before any invasive procedure (surgery that requires large cuts or many cuts into your body).
- Follow up with your doctor regularly to monitor (watch) your aneurysm and overall health.
- Have all first-degree relatives (parents, siblings, and adult children) screened (tested) by their doctors for a thoracic aortic aneurysm.

Do not:

- Do not use any tobacco products. This includes avoiding smoking or being around other who are smoking (secondhand smoke).
- Do not push, pull, or lift anything too heavy (anything that causes you to strain or “bear down” while trying to lift it). For most patients, this means not pushing, pulling, or lifting anything heavier than 30 pounds.
- Do not get a tattoo or body piercing.
- Do not shovel snow, chop wood, dig earth, or use a sledgehammer or snow blower.
- Do not take stimulants such as ephedra, cocaine, or amphetamines.
- Do not take fluoroquinolone antibiotics such as ciprofloxacin and levofloxacin. If you are prescribed one of these, please ask your provider for a different antibiotic medication.
- Do not ride amusement park rides.
- Do not participate in intense, competitive, or contact sports.
- Do not use firearms, a bow and arrow, or other hunting equipment until your provider says it’s okay.

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CVC Control #1528

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