



What is arterial dissection?












Arterial dissection happens when the inside layer of an artery (a type of blood vessel that carries blood away from your heart to the rest of your body) tears. When this tear occurs, blood gets between the layers of the artery wall and pushes them apart, impacting normal blood flow.

Tears can happen to arteries anywhere in your body, but it most often affects the carotid arteries (the main arteries in your neck) that bring blood to your brain.

An arterial dissection can cause serious problems like a stroke or damage to the organs in your body.

Symptoms

The symptoms of arterial dissection can be different depending on where the tear is and how bad it is. Most common warning signs are:

-  Sudden, very bad headache
-  Pain or stiffness in your neck
-  One side of your face droops or looks different
-  Changes in your vision or loss of sight in one eye
-  Weakness, numbness or tingling on one side of your body
-  Trouble speaking or understanding what others say
-  Feeling dizzy or losing your balance
-  Hearing a whooshing or rhythmic sound in your ears
-  Fainting or passing out
-  Pain in your chest or back
-  Sudden weakness in your legs

These symptoms can start suddenly and get worse quickly. This is especially true if the tear blocks blood from reaching important organs in your body.

Causes and Risks

Doctors don't always know exactly why arterial dissection happens. However, some things can make it more likely to occur:

- **Injury:** A car crash, sports injury or hard hit can sometimes damage an artery.
- **Connective tissue disorders:** Conditions like Ehlers-Danlos syndrome, Marfan syndrome or fibromuscular dysplasia can make artery walls weaker and easier to tear.
- **High blood pressure:** Having high blood pressure for a long time puts extra stress on the artery walls, making them more likely to tear.
- **Clogged arteries:** When fatty plaque (made of mostly fat and cholesterol) builds inside arteries, it can weaken them and make a tear more likely.
- **Pregnancy and childbirth:** The body changes and stress during pregnancy or birth can raise the risk for some women.
- **Family history:** If a family member has had an arterial dissection, you may be more likely to have one too.
- **Medical procedures:** In rare cases, procedures like angiography (a test to see how blood is flowing through your arteries), angioplasty (surgery to open a blocked artery) or neck adjustments by a chiropractor can cause an arterial dissection.

Sometimes, an arterial dissection happens without a clear reason. Knowing these risk factors helps you watch out for symptoms.

Recognizing Arterial Dissection

Doctors use several steps to find out if you have arterial dissection, such as:

- Medical history and physical exam: The doctor asks about your symptoms and checks your body
- Imaging tests, including:
 - Magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA): magnetic tests that show detailed pictures of your arteries
 - Computed tomography angiography (CTA): a special CT scan that looks at your blood vessels
 - Ultrasound: uses sound waves to see blood flow
 - Catheter angiography: a test where doctors put a thin tube into your artery to get clear pictures
- Blood tests: These check for swelling in your body, blood clotting problems or other conditions that might cause arterial dissection

Role of a Vascular Surgeon



Vascular surgeons play an important role in treating arterial dissection. Vascular surgeons are the only specialists trained to recognize and treat the full spectrum of vascular diseases. They are experts at finding the problem, planning treatment and performing procedures to restore blood flow, prevent issues and help patients get better.

Treatment

The goal of treatment is to ease symptoms, prevent serious problems, and help blood flow normally through the artery. Every person's treatment is different.

Your doctor or vascular surgeon may use these treatments:

- Medicine: In many cases, doctors give medicine to control symptoms and lower the risk of problems.
 - For example, blood pressure medicine helps take stress off the artery walls.
- Minor Procedures: Sometimes doctors use small procedures to fix the artery and get blood flowing normally again.
 - Stent placement: The doctor puts a small mesh tube inside the artery to hold it open and help blood flow normally.
 - Balloon angioplasty: The doctor places a tiny balloon inside the artery and fills it with air to make the narrow or blocked area wider.
 - Removing blood clots: If a blood clot is blocking the artery, doctors may use a thin tube to take out the clot. Or they may give medicine that breaks up the clot.
- Surgery: Sometimes surgery is needed if the tear is very large or can't be fixed with the smaller procedures.
 - Arterial bypass: The surgeon makes a new path for blood to flow around the damaged part of the artery.
 - Arterial repair: The surgeon cuts out the damaged section of the artery and connects the healthy ends back together.

After treatment, you need regular checkups. The doctor wants to make sure the artery is healing and blood is flowing normally. Your doctor may change your medicines and order imaging tests to check your progress and keep your arteries healthy.