

## What is carotid artery disease?

The carotid arteries are the main blood vessels in your neck. They supply your brain with blood. **Carotid artery disease** occurs when these arteries become narrow or blocked, usually because of the buildup of plaque. **Plaque** is made up of fat, cholesterol, and other substances found in the blood. A blockage or narrowing increases your risk of stroke. **Stroke** is a medical emergency that occurs when the blood supply to the brain is cut off or seriously reduced.

## What are the symptoms of Carotid Artery Disease?

Carotid artery disease often does not cause symptoms until the blockage or narrowing is severe. A routine physical exam can detect carotid artery disease, even if you have no symptoms. Your provider may hear a whooshing sound (called a **bruit**) when listening to the carotid artery in your neck with a stethoscope. This bruit is caused by blood rushing through a narrowed part of the artery.

If the blockage is severe enough, it can cause symptoms of a Transient Ischemic Attack (TIA) or stroke such as:

- Sudden numbness, tingling, weakness, or loss of movement in your face, arm, or leg, especially on only one side of your body.
- Sudden vision changes including a dark shade coming down your eye.
- Sudden trouble speaking.
- Sudden confusion or trouble understanding simple statements.
- Sudden problems with walking or balance.
- A sudden, severe headache that is different from past headaches.

## **How is carotid artery disease diagnosed?**

Your doctor will diagnose carotid artery disease based on your medical history, a physical exam and test results. The following tests are common for diagnosing carotid artery disease.

- **Carotid Ultrasound** - this test uses sound waves to create pictures of your carotid arteries. It can show any blockages caused by plaque deposits and how the blood moves through your carotid arteries. This is the most common test for diagnosing carotid artery disease. It is used to make clinical decisions.
- **Computer Tomography Angiogram (CTA)** - is a special type of x-ray. For this test, your doctor will inject a substance (called contrast dye) into a vein. The dye travels to your carotid arteries and highlights them on x-ray pictures. This test helps determine if plaque buildup has narrowed your arteries and may be needed as an additional test.
- **Magnetic Resonance Angiography (MRA)**- this test uses magnetic imaging to take pictures of your carotid arteries to determine if there is plaque buildup within your arteries. This test may be needed as an additional test or if you have an allergy to IV contrast dye.

## **How is carotid artery disease treated?**

Treatment for carotid artery disease includes making lifestyle changes, taking medications or medical procedures. The goal is to stop the disease from getting worse to prevent a stroke. Your doctor will talk to you about your specific treatment options.

### **Lifestyle changes include:**

- Quitting smoking
- Eating foods low in saturated fats, cholesterol and sodium
- Controlling high blood pressure, cholesterol and diabetes

- Maintaining a healthy weight
- Managing stress
- Daily exercise

### **Medications:**

Your doctor may give you prescription medications to help prevent blood clots which will lessen your chance for stroke. Common medications are:

- Aspirin
- Clopidogrel
- Statins
- Blood pressure medications
- Medication for high blood sugar

### **Medical Procedures:**

If your blockage is severe, or you've already had a TIA or stroke, your doctor may recommend a medical procedure to remove the plaque from your arteries.

The two procedures include:

- **Carotid Endarterectomy** -Your surgeon makes a cut in your neck to reach the narrowed or blocked artery. They will open the blocked part of the artery and remove the plaque that is blocking blood flow.
- **Carotid Artery Angioplasty and Stenting**- is used to widen the carotid artery and restore normal blood flow. A thin tube with a deflated balloon on the end is threaded through a blood vessel in your neck to the blocked artery. Once in place, the balloon is inflated to push the plaque against the artery wall and small wire mesh coil (stent) is then put into the artery to keep the artery open.

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