

Carotid Artery Disease and Stroke

What is carotid artery disease?

Carotid artery disease is the thinning of the carotid arteries, the two main blood vessels in the neck that supply blood to the brain. Plaque build-up can lead to the thinning of an artery. It can even cause complete blockage of an artery.

There are often no symptoms of carotid artery disease. A person may not know they have it until they suffer a TIA or stroke. If you notice any stroke symptoms, it is vital to talk to your healthcare professional.

What are the risk factors of Carotid Artery Disease?

Risk factors that lead to carotid artery disease include:

- **Age:** The arteries become more rigid with age.
- **Obesity:** Excess weight raises the chances of having high blood pressure and diabetes.
- **Lack of exercise:** A lack of exercise can worsen risk factors such as obesity, high cholesterol, and high blood pressure.
- **Family History:** Your risk is greater if another family member has carotid artery disease.
- **Diabetes:** Diabetes lowers your ability to process fats. People with diabetes are four times as likely to have carotid artery disease.
- **Smoking:** Smoking constricts blood vessels and lowers oxygen flow. It can lead to high cholesterol, increased heart rate, and high blood pressure.
- **High Blood Pressure:** Excess pressure on the arteries can cause them to weaken and become more prone to damage.
- **High Cholesterol:** Having a high LDL and low HDL can increase fat in the blood stream.

- **Poor Diet:** Eating foods that are high in fat, salt, or sugar can increase your risk of carotid artery disease.

How can I find out if I have Carotid Artery Disease?

There are several tests that can detect carotid artery disease:

- **History & Physical Exam:** A healthcare professional will listen to the sound in your carotid arteries. This is not a guaranteed way to detect for disease.
- **Doppler Ultrasound Imaging:** A painless, noninvasive test in which sound waves bounce off of the arteries to check for blood flow and thickness of the arteries.
- **Oculoplethysmography (OPG):** Measures the pulse of the arteries in the back of the eye to indirectly check for blockages in the carotid arteries.
- **Arteriography and Digital Subtraction Angiography (DSA):** A special dye is injected into the arteries and an x-ray of the carotid artery is taken. An invasive method like this carries some risk of stroke.
- **Magnetic Resonance Angiography (MRA):** Uses magnetic field and radio waves to provide detailed pictures of the arteries. An MRA can provide more data than an x-ray, ultrasound, or CT scan.

How is Coronary Artery Disease treated?

This disease must be treated by a healthcare professional. A Carotid Endarterectomy is one treatment, in which a healthcare professional removes fatty buildup from the carotid artery. This is the most common surgery for getting rid of plaque. It can reduce stroke by as much as 55 percent. Making lifestyle changes can prevent carotid artery disease or keep it from getting worse.

Some lifestyle changes include:

- Quit smoking
- Control high blood pressure, high cholesterol, diabetes, and heart disease.



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- See your doctor regularly
- Eat a healthy diet that is low in salt.
- Lose weight and maintain it if necessary.
- Exercise regularly
- Limit alcohol intake.

If lifestyle changes do not have an effect, blood thinning medications can be used to thin the blood and prevent a clot build up.