



CAROTID ARTERY STENOSIS

FIVE QUESTIONS FOR... *SHARED DECISION MAKING FOR THE MANAGEMENT OF CAROTID ARTERY STENOSIS*

Shared decision-making helps patients and their health care providers make decisions together. Health care decisions should consider the best evidence and the patient's health care goals. This guide will help you and your neurologist talk about:

- What works best
- The side effects and risks
- How the treatment might affect your quality of life
- How job and family duties might affect your decisions
- How cost will affect your decision

1. WHAT IS CAROTID ARTERY STENOSIS?

The carotid arteries are the large blood vessels on both sides of the neck. They supply blood to most of the brain. Stenosis means narrowing. Carotid artery stenosis means the main artery supplying blood to your brain is narrowing. The narrowing of the carotid artery is caused by a buildup of plaque. This can be dangerous and cause a stroke. To diagnose carotid artery stenosis, your doctor will order an imaging test to help determine how severe the narrowing is and ask you about any warning signs you may be experiencing.

2. WHAT ARE MY OPTIONS FOR TREATING CAROTID ARTERY STENOSIS?

Treatment options range from drugs to opening the blood vessel with surgery. Treatment options will depend on your symptoms and the amount of blockage in your carotid artery. Symptoms that your doctor will look for are a stroke or blood flow interruption to the brain for brief periods of time—known as transient ischemic attacks (TIAs). Patients experiencing stroke or TIA have weakness, numbness or paralysis in the face, arm, or leg. Their speech can become slurred. They might become dizzy or lose their balance.

The doctor also will look at the imaging studies and determine how narrow the artery is.

- If the narrowing of the carotid artery is **less than** 50 percent, with or without symptoms, your doctor will recommend drug therapy.
- If the narrowing of the carotid artery is **between** 50 and 70 percent and you have symptoms, your doctor will consider surgery in some cases.
- If the narrowing of the carotid artery is **more than** 70 percent and you are having symptoms, your doctor will recommend surgery.
- If the narrowing of the carotid artery is **more than** 70 percent and you don't have other symptoms, your doctor will recommend surgery if there is low risk of complications.

This discussion guide will help you understand carotid artery stenosis treatments and the risks and benefits of those treatments.

Drugs:

Patients diagnosed with carotid artery stenosis are usually given drugs to decrease plaque build-up and thin the blood. These drugs might include high blood pressure drugs, drugs that block platelets, and drugs used to treat high cholesterol. All medicines have risks. Talk to your doctor about these risks before stopping or starting any medication.

The following risks are possible with medicines used to manage carotid artery stenosis:

Drug	Risks
High blood pressure drugs: These drugs work in many ways	Risk of spikes in blood pressure when abruptly stopped Risk of side effects in pregnant women
Anti-platelet drugs: These drugs block platelets and decrease the potential for blood clots	Risk of side effects includes: <ul style="list-style-type: none"> • Upset stomach • Bleeding • Rash
Drugs for high cholesterol: These drugs lower total cholesterol and reduce the risk of a stroke	Risk of side effects includes: <ul style="list-style-type: none"> • Muscle pain, soreness, or weakness • Liver damage • Higher blood sugar levels

Surgery:

Some patients with severely blocked carotid arteries might need surgery. There are two surgical procedures that are used for patients with carotid artery stenosis.

- In “*stenting*,” the doctor uses a tube that runs from the groin to the neck to insert a metal stent in the artery to lessen the narrowing.
- In “*carotid endarterectomy*,” the doctor removes the plaque buildup on the inside of the artery through an incision in the neck.

Both have risks of stroke during the procedure. Doctors will consider surgery risk, the risk of a stroke if no treatment is done, and the percent of blockage before recommending a procedure.

3. HOW CAN I TALK WITH MY DOCTOR ABOUT REACHING A DECISION?

Decide if you need more information to make the decision.

- Talk with your doctor about studies with good data and the possible risks and benefits of these treatments.
- Discuss if there are any risks that concern you more than the others.
- Talk about the cost of these treatments and if insurance covers the costs.

4. WHAT OTHER CHANGES WILL I NEED TO MAKE?

- Stop smoking. This will prevent further damage to the artery walls.
- Eat a diet low in saturated fats. This will reduce cholesterol build-up and plaque formation and decrease obesity and high blood pressure.
- Engage in moderate exercise for 30 minutes a day.
- Learn stress reduction techniques. This will lower blood pressure and prevent further stress-related damage to arteries.

5. WHAT IS THE EVIDENCE?

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The American Academy of Neurology recognizes that specific patient care decisions are the prerogative of the patient and the physician caring for the patient, based on all of the circumstances. This statement is provided as an educational service of the AAN. It is based on an assessment of current scientific and clinical information. It is not intended to include all possible proper methods of care for a particular neurologic problem or all legitimate criteria for choosing to use a specific procedure. Neither is it intended to exclude any reasonable alternative methodologies.