

CAROTID ARTERY DISEASE (Cont.)

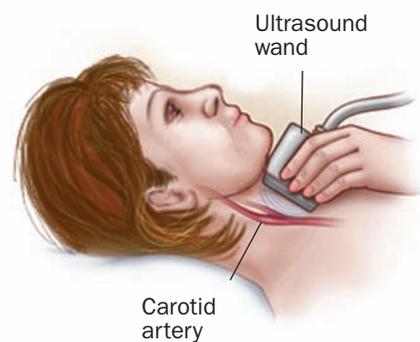
- Sudden vision loss in one eye (feeling of a curtain being pulled over one eye)
- Difficulty speaking clearly
- Sudden trouble walking, dizziness, or loss of balance or coordination

Symptoms of a TIA **completely resolve within 24 hours**. If your symptoms do not resolve, a stroke has likely occurred. You should contact your physician immediately if you experience any symptoms of a stroke or TIA.

WHAT TESTS WILL I NEED?

Your physician will first obtain a thorough history and physical examination. During your examination, he or she will listen for sounds that indicate turbulent flow through your carotid arteries. This turbulent flow is called a carotid bruit. After your examination, your physician may proceed with imaging studies. These include:

- *Carotid Duplex Ultrasound*: A noninvasive study that uses high frequency sound waves to assess the structure and flow within your blood vessels. Your physician will be able to determine the degree of narrowing within your carotid arteries.
- *CT Scan*: An imaging modality that uses a series of pictures in order to reconstruct images of your brain and carotid arteries. Your physician may request that this study be done with contrast dye to enhance the appearance of your arteries. In this case, you may be required to go for a blood test beforehand to ensure that your kidney function is sufficient to appropriately eliminate the contrast dye. **Inform your physician of any allergies to contrast dyes in advance.**
- *Magnetic Resonance Angiography (MRA)*: A noninvasive imaging test that uses radio waves and magnetic fields to create detailed images of your carotid arteries. Contrast may also be used to enhance the projections in this study.
- *Angiography*: An invasive imaging test is performed by insertion of a catheter through an artery in your groin. The catheter is guided to the neck and contrast dye is injected into the carotid arteries. This may require coming to the hospital for routine lab tests prior to the test.



CAROTID ARTERY DISEASE

TREATMENT OPTIONS

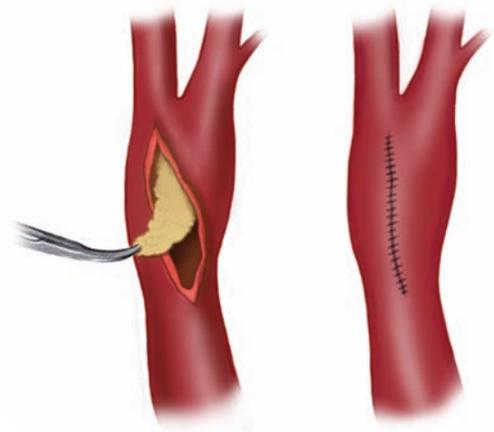
Your physician will determine the appropriate treatment depending on the degree of narrowing (stenosis), whether or not you are having symptoms, and your other medical conditions. If you are asymptomatic (experiencing no symptoms), with a minimal degree of narrowing, your physician may choose to monitor your disease once every year with carotid duplex ultrasound. This will monitor the progression of narrowing in your carotid arteries.

If you have a significant narrowing, or are currently having symptoms of TIA or stroke, you may be a candidate for a surgical intervention.

There are currently two options for surgical treatment available, carotid endarterectomy and carotid artery stenting. Your physician will determine which treatment option you may be a candidate for.

Carotid Endarterectomy

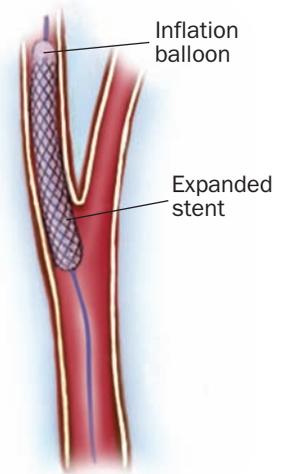
- Carotid endarterectomy is the removal of plaque from the inner lining of your carotid artery.
- An incision is made in your neck in order to expose the artery.
- The surgeon will clamp the artery above and below the area of blockage to temporarily stop blood flow.
- Occasionally, your surgeon will place a shunt to preserve blood flow to the brain during the procedure. You may not require a shunt if your brain is receiving adequate flow from other arteries.
- An incision is made in the artery, and the plaque is loosened from the wall and then removed.
- The incision is sutured closed. Sometimes a patch is placed on the artery to provide tensile strength at the surgical area.
- Often, a drain is placed through the incision to facilitate drainage of excess fluid and blood. This drain is removed before you are discharged home.
- After surgery, you should anticipate staying in the hospital for 24 to 48 hours.
- Complications associated with this procedure may include stroke or transient ischemic attack, bleeding, infection, heart attack, hoarseness, numbness, or cranial nerve injuries.
- After surgical treatment of carotid artery disease, follow-up each year with ultrasound is necessary to monitor for recurrent narrowing.



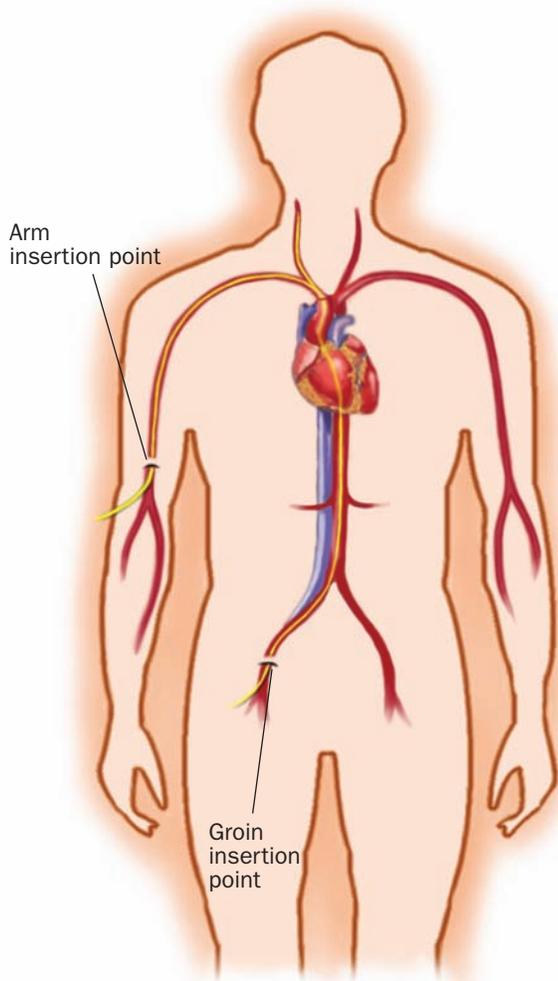
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Carotid Artery Stenting

- This is a newly developed minimally invasive procedure usually performed under local anesthesia to treat carotid artery disease. You may be a candidate for this procedure if you are at high risk for general anesthesia.
- Your surgeon will puncture the femoral artery in the groin and insert a sheath into the opening. A catheter is then inserted into the sheath and guided to the carotid arteries.
- Contrast dye is then injected and pictures are taken of your arteries.
- Once the area of narrowing is identified, a filter is placed beyond the area of stenosis. This filter or embolic protection device prevents any debris or clots from breaking off and traveling to the brain.



- A small balloon is used to expand the narrowed areas and flatten the plaque against the walls of the artery.
- A stent is then advanced to the site of plaque and expands to the diameter of the artery.
- Finally, a completion angiogram is performed to ensure the procedure was successful and the catheters are removed.
- Long-term success rates are currently unavailable.



CAROTID ARTERY DISEASE

RISKS AND COMPLICATIONS

- TIA or stroke
- Bleeding and infection
- Heart attack
- Blood clots
- Abnormal heart rhythms

RECOVERY

After either carotid endarterectomy or carotid stenting, you will likely stay in the hospital from 24 to 48 hours. You can expect to return to normal activities in approximately 1 week.

- Take all medications as prescribed.
- If you have a neck or groin incision, keep the site clean and dry.
- Avoid lifting objects greater than 10 pounds.
- Use caution when shaving if you have a neck incision.
- Follow up with your surgeon in 1 to 2 weeks after discharge.

WHEN TO CALL YOUR PHYSICIAN

If you have symptoms of stroke or transient ischemic attack (TIA), call 911 immediately.

If you experience the following, call your surgeon:

- Symptoms of TIA or stroke (any sudden onset of weakness, numbness, or tingling sensation on one side of your body; loss of vision in one eye or the feeling of a curtain being pulled over one eye; difficulty speaking clearly; or trouble walking, dizziness, or loss of balance or coordination)
- Redness, warmth, excessive pain, drainage, or bleeding from your incision or puncture site
- After carotid stenting, bleeding from the groin, numbness, coolness, or pain in your leg or toes
- Changes in your mental status, such as confusion or **severe headaches**
- Shortness of breath or chest pain
- Fever greater than 101°