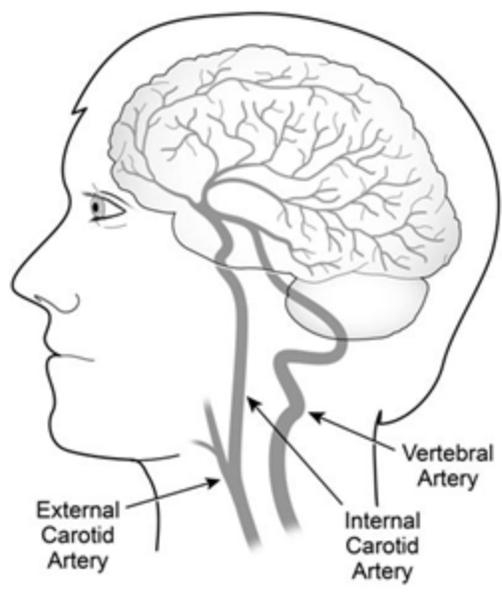


## Carotid Endarterectomy and Stenting

Carotid artery disease is a condition that can increase a person's risk of having a stroke. The carotid arteries are 2 of the main blood vessels that supply blood to your brain.



These arteries can become narrowed due to plaque buildup, called atherosclerosis. This can block the blood flow to your brain. You may then be at risk for stroke.



### Symptoms of Carotid Artery Disease:

Some people have no symptoms of their carotid artery disease. Others may have had an ischemic stroke or transient ischemic attack (TIA).

**Ischemic Stroke:** A lack of blood flow causes damage to a part of the brain. Signs may include sudden weakness or numbness of the face, arm or leg on one side of the body. Sudden vision loss, mainly in one eye. Trouble speaking or understanding speech.

**TIA:** Stroke symptoms that start quickly and go away quickly. The blood vessel may have become blocked and then reopened. There is no brain damage.

### Risk Factors

Some risk factors are things you cannot change, such as age or family history. Other risk factors that you have more control over include:

- High blood pressure
- Diabetes
- Smoking
- High cholesterol
- Obesity
- Lack of exercise

### Tests

Tests are done before your doctor will decide the best treatment for you. They may include:

- Carotid duplex scan: This is a doppler ultrasound to measure the blood flow in your arteries.
- CT or CTA scan: This is a scan of your head and neck that creates an image of your arteries and brain.

- **Angiogram:** This is a series of x-rays are taken using contrast. It can pinpoint a blockage.
- **MRI/MRA:** These tests use a strong magnet, radio signals, and a computer to produce pictures of the blood flow from your arteries and pictures of your brain.

## Treatment

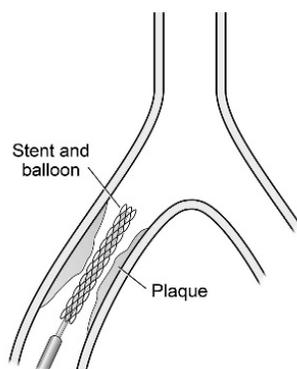
The treatment will depend on the extent of the disease, where the narrowed arteries are and how severe your symptoms are. The main concern is to prevent a stroke. Treatment options may be medical or surgical.

**Medical treatment** includes anti-platelet medicines, statin drugs that lower your cholesterol, blood pressure medicines and lifestyle changes (i.e. exercise, quitting smoking, heart healthy diet).

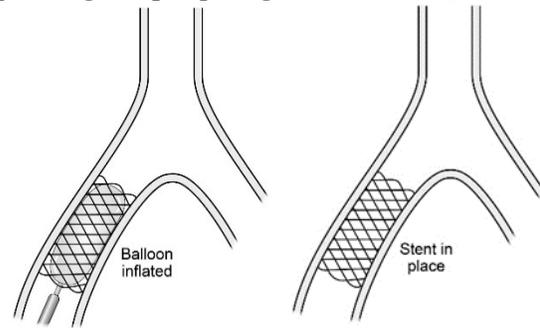
**Surgical treatment** includes carotid endarterectomy and stent placement.

A **carotid endarterectomy** is surgery to remove the blockage in the blood vessels leading to your brain. An incision is made in the neck and the plaque is removed.

**Stent placement** is a metal tube placed in your artery. This helps keep the artery open and improve blood flow to the brain. It is inserted into a groin artery using guided x-ray until it reaches the narrowed artery.



When it is in place the balloon is inflated, pushing the plaque against the artery wall.



## Surgery Risks

The risks depend on your overall health and how severe your disease is. Your doctor will discuss the risks with you before you decide on a treatment plan. Some risks include:

- Neck bruising, swelling and discolored skin (with endarterectomy)
- Groin bruising, swelling and discolored skin (with stent)
- Damage to nerves in neck. This can cause a hoarse voice, numbness, or trouble swallowing. These symptoms often do not last (endarterectomy only).
- Reaction to contrast dye
- Sore throat
- Blockage can recur over time
- Stroke (rare)

## Hospital Stay

Come to the hospital the morning of surgery. You will speak with your doctor and sign a consent. An anesthesiologist will talk with you. Nurses will help you get ready for surgery and answer your questions.

After the surgery, you will be in the recovery room 1-2 hours. When you are fully awake, you will be taken to an inpatient room.

Your stay will be 1-2 days. Staff will be checking your arm and leg strength, pupil

size, and level of alertness. You will have an IV until you can take enough fluid by mouth. You will have leg wraps to prevent clots.

### **Incision Care**

Your **neck incision** will be closed under the skin so there are no stitches on the outside. You may have strips of tape over the incision. Do not pull on or try to remove these. Let them fall off on their own.

You may shower, but do not soak in the bath. Allow the water to flow gently over the area. Do not rub the incision. After your shower, gently pat dry. When shaving, be careful to avoid the incision.

Your **groin incision** may be closed with stitches, staples or skin glue. You can remove the dressing after 2 days. You may shower after 2 days and get the incision wet in the shower. Do not swim or soak in a bathtub or hot tub until okayed by your doctor.

The skin in the groin area folds over to make a crease. Moisture in that crease can lead to an infection. Wash and dry the groin daily to avoid an infection.

**Clean the wound and groin.** Gently clean it with mild soap and water. Remove any dried drainage. Do not scrub the incision. Rinse off all the soap. Pat dry with a towel. Completely dry the groin. Do not use any lotions, alcohols, powders, or oils on your incision. Cover the wound with a band aid.

### **Numbness**

It is normal to have some numbness along your incision, neck, and earlobe. This will decrease with time.

### **Pain Control**

You will have some pain at the incision and in your neck. Your doctor has prescribed medicine for you to use at home. The pain will decrease with time.

### **Activity**

By the time you go home, you may be doing some of your normal routine. You may tire more easily. This is normal. Your strength and energy level will increase as your body heals.

Sleep with your head raised on at least two pillows. This will help decrease the swelling in your neck.

### **Activity Guidelines**

- No lifting more than 10 pounds for 2 weeks.
- Avoid contact sports or heavy exercise.
- Your new scar will require sunscreen for the rest of your life. Start using sunscreen after 4 weeks. Protect it with a scarf or clothing before that time.
- At your follow-up visit, ask when you can return to work.
- At your follow up visit ask when you can resume normal activities such as sex.
- If you had a carotid endarterectomy, do not drive until advised by your doctor. It may be hard to turn your head due to neck pain. **Do not drive when taking opioid pain medicine.**
- If you had a stent placed, you may drive when you no longer have pain in the groin for at least 3 days. **Do not drive when taking opioid pain medicine.**

### **Diet**

You may resume your normal diet when you return home. Drink plenty of liquids (8-10 8

oz. glasses of water per day). Eat foods high in fiber (whole grain breads and cereals, fresh fruits and vegetables). This will prevent constipation and straining to have a bowel movement. If this does not help, use a stool softener (such as Colace<sup>®</sup>) or a laxative.

### **How to Prevent Carotid Artery Disease**

- Stop smoking
- Know your blood pressure
- Manage your diabetes
- Control your cholesterol
- Lose weight
- Be active
- Eat healthy
- Reduce stress
- Take your medicines as prescribed

### **Follow Up**

You will have a clinic visit a few weeks after surgery. You may need follow up imaging of your carotid arteries with a carotid duplex scan or CT.

### **When to Call 911**

The signs below can be life-threatening. **If you notice them, call 911 even if they last only a few seconds** These are warning signs of a stroke and early treatment is vital.

- **B-** Balance loss, unexplained dizziness, unsteadiness, or a fall.
- **E-** eyes: vision loss or dimness, especially in one eye.
- **F-** Facial drooping.
- **A-** Arm or leg weakness or numbness on one side of the body.
- **S-** Speech difficulty- either speaking or understanding others.
- **T-** Terrible headache that is sudden and severe, with no known cause.

### **When to Call**

Check your incision twice a day for signs of infection. Call if you have any of these signs:

- An increase in redness or warmth at the area of the incision.
- Red streaks on your skin coming from the wound.
- Bulging or swelling at the incision.
- Any new drainage or bleeding.
- If your incision opens.
- Fever greater than 100.5° F (38.1°C) by mouth, for 2 readings, taken 4 hours apart.
- Pain or numbness that worsens or numbness in a new area.
- Problems with constipation.

### **Who to Call**

Vascular Surgery Clinic (8 am to 5 pm)  
**(608) 263-8915**

Neurosurgery Clinic (8 am to 5 pm)  
**(608) 263-7502**

Neuroendovascular Clinic (8 pm to 5 pm)  
**(608) 263-4730**

After hours, nights, weekends, and holidays, this number will give you the paging operator. Ask for the doctor on call for your clinic. The doctor will call you back. The toll-free number is **1-800-323-8942**.