Trans Carotid Artery Revascularization (TCAR)

Your carotid arteries are the main source of blood supply to your brain. When plaque builds up in your arteries, they become narrow and reduces blood flow to the brain. Carotid artery disease is one of the leading causes of stroke in the United States, accounting for 20-30% of all ischemic strokes. Once the narrowing becomes severe, your doctor may consider Trans Carotid Artery Revascularization (TCAR).

TCAR is a minimally invasive procedure that temporarily reverses blood flow and collects any debris that may become dislodged during the procedure. This is done to reduce the risk of intra-procedural stroke by forcing the flow through a filter and then returning it via a catheter to the femoral vein in your groin. A metallic stent is then placed in your carotid artery via an incision in your neck. This helps restore blood flow to your brain and decreases your risk of stroke.

What can you expect before your procedure?
Your doctor will perform imaging studies to determine the size of your carotid artery. You will be started on a cholesterol lowering medication (statin) 5 days before your procedure. You will be started on Aspirin and another blood thinner before your procedure. The night before your procedure, please do not eat or drink anything after midnight. However, you may take regularly scheduled medications, such as your Aspirin or blood pressure medications, on the morning of the procedure with a small sip of water.

What happens during your procedure?
You will have an IV placed and you will be given medication to help you relax by your anesthesia team. Your doctor will make an incision in your neck and place a small tube inside your carotid artery. After reverse flow is achieved, a stent will be placed at the area of narrowing inside the carotid artery and will be inflated to restore flow to your brain. The small tube will be removed and the carotid artery will be closed with sutures.

What happens after your procedure?
Your vital signs and neurological status will be closely monitored for the first 24 hours, as well as your incisions. You may expect some bruising and pain at your incisions. You can expect to be discharged after one day in the hospital.

How to care for yourself after discharge:
Do not stop taking your Aspirin, Statin medication, or other blood thinners until directed to do so by your provider. Your doctor will schedule a follow-up appointment 1 month after discharge for a carotid ultrasound. Do not lift over 10 pounds until cleared by your doctor.

Monitor your blood pressure daily and report to your primary care provider. If you develop any redness, swelling, drainage, or fever contact your doctor right away. If you develop any signs and symptoms of stroke such as dizziness, sudden loss of vision, facial weakness or numbness, arm or leg weakness or numbness, difficulty speaking, or understanding speech call 911 immediately. Continue to eat a heart-healthy diet and visit your primary care physician regularly.