

CAROTID ARTERY STENTING

Patient Information



What is carotid artery disease?

Carotid arteries are blood vessels in the neck that supply blood to the brain. In this disease, due to a number of reasons, such as age, hypertension, diabetes and smoking, plaque (a sticky deposit made of fat, cholesterol and other substances in the blood) sets in. The plaque causes a narrowing of the inner surface of the carotid artery, called the carotid lumen, which cuts off the blood supply to the brain. This can result in a stroke.

What are the options to treat carotid artery disease?

In cases where the lumen of the carotid artery is blocked less than 70 percent, medical therapy like aspirin works adequately. However, a narrowing of the carotid artery beyond this range can lead to signs of stroke. In such cases, aggressive therapy is required. For these patients, Carotid Endarterectomy (a surgical procedure) and Carotid Artery Stenting (a minimally invasive radiological procedure) may be used. Please ask your doctor to find out more about these procedures and which would work best for your case.

Why do I need carotid artery stenting?

Atherosclerotic plaque can develop in carotid arteries and can disturb the circulation of blood to the brain. As more plaque builds up, arteries become narrower and stiffer. This leads to a decreased flow of blood to the brain and may lead to a stroke. A carotid stent widens the path through which the blood can flow, allowing for more blood to reach the brain. This helps prevent a stroke.

Who makes the decision to carry out carotid stenting?

Your treating physician and the interventional radiologist performing the procedure discuss the case and decide if carotid stenting is necessary.

How do I prepare for the procedure?

If carotid stenting has been deemed as the best course of action,

- You will be asked to visit a neurologist.
- You will also be asked to get an ultrasound of the neck, and an MRI of the brain.
- You may be asked to get some new laboratory tests. These include PT, PTT, INR, creatinine and platelet count.
- You will have to get admitted to the hospital for this procedure.
- Please stop consuming food and drink six hours before the test. The exception is you may continue taking your medicines with water. Please consult your doctor if you are on diabetes medication.
- Inform your doctor if you have any allergies or have had a bad reaction to any procedure in the past.
- Tell your doctor if you are taking any blood thinning medications, as these may need to be stopped.

What happens during carotid stenting?

- You will be asked to lie down on your back, on the X-ray table.
- A cannula (thin tube to administer medication) will then be inserted in your arm so that the interventional radiologist can give a sedative or painkiller when required.
- Sensors will be attached to your body to monitor your vitals.
- The skin patch where the radiologist will enter the blood vessel (usually your right groin) will

- be cleaned, and then a local anaesthetic will be injected there.
- A small incision (cut) will be made in the skin through which a needle will be inserted into your vessel.
 - This will be followed by inserting a vascular sheath. This sheath helps introduce a tube (catheter) into the blood vessel.
 - When the catheter reaches the carotid artery, contrast will be injected, making the artery visible with X-rays.
 - Next, the stent will be passed and placed in the carotid artery. The stent attaches itself to the vessel wall.
 - The catheter is then removed and pressure is applied over the site of entry for about 10 to 20 minutes.
 - When the bleeding stops, a plaster will be applied. You may remove this after 24 hours.

Will it hurt?

- You may feel slight pain when a local anaesthetic is injected, after which the area will become numb.
- You may also feel a warm sensation when the contrast media is injected. However, the feeling will subside in a while.
- You may also feel some discomfort when the obstructed artery is dilated.

How long will it take?

This procedure usually takes about 1-2 hours to complete. However, depending on your individual case, it may take longer.

What happens afterwards and what precautions are necessary?

- You will be shifted back to your ward where the nurses will carry out regular observations.
- The leg used to introduce the catheter should be kept straight for 6 hours to avoid bleeding (haemotoma).
- You may be given intravenous medications for pain control.
- You should drink plenty of fluids unless otherwise directed by your doctor. This will help clear the IV contrast from your body.
- Do not climb stairs or lift heavy objects for the next 48 hours. Avoid driving for the next 24 hours.

Are there any risks associated with this procedure?

- Carotid artery stenting is a relatively safe procedure.
- The most dangerous complication is a stroke. This may occur in 2-5% of the patients.
- There is a small risk of bleeding from the site where the catheter was introduced into the body.
- Please contact your doctor if you have any signs of an allergic reaction which include itching, redness, difficulty breathing, swelling or dizziness.

How much follow up care will I need?

- After the procedure, you will be required to take a few medications for some time.
- Ultrasound Doppler and neurological examination will be conducted at 3 and 6 months and then repeated every year.

- You will also have to make some lifestyle modifications such as;
 - Adopting a low cholesterol diet
 - Using medication that lowers blood cholesterol levels if needed
 - Improving your diabetes management
 - Quitting smoking if applicable

For further information and assistance:

Contact the radiology department reception at 021-3486-2057, between Monday and Saturday from 8:30 am to 5:15 pm, except on public holidays.

How can I get my radiology films and reports?

Reports and films can be collected 24 hours after the procedure from the radiology delivery counter between 8:30 am to 8:30 pm.

Please note the following:

- Bring your doctor's prescription and previous medical/radiology record on the day of procedure.
- Arrive 15 minutes before the scheduled time for registration and other formalities. Late arrival may lead to delay/rescheduling of your examination.
- Patients requiring urgent care may be given priority. This may result in a delay in starting your procedure. Your cooperation in this regard will be highly appreciated.
- If you are pregnant, inform your doctor before the procedure. Your doctor may reschedule or cancel the examination.
- It is advisable to bring an attendant with you.