

A New Route for Carotid Artery Stenting

We have all heard the warnings when it comes to stroke: time lost is brain lost. Every minute a stroke goes untreated, the brain loses nearly two million brain cells it can never recover, and every hour of stroke is equivalent to losing over three and a half years' worth of brain cells.

While acting quickly during a stroke event is imperative, there are some medical advances that can help prevent a stroke from occurring in the first place especially in those with carotid artery disease.

Carotid artery disease occurs when fatty deposits, or plaques, clog the blood vessels that deliver blood to the brain and head (carotid arteries). These blockages dramatically increase the risk of stroke.

"It can lead to lightheadedness, or feelings of dizziness, or losing consciousness sometimes, but most importantly stroke," says Dr. Sourabh Lahoti.

Dr. Lahoti is an interventional neurologist at the [OSF Illinois Neurological Institute](#) (OSF INI) in Peoria, Illinois. He says a procedure called carotid artery stenting has proven to alleviate the risk for patients with carotid artery disease.

During carotid artery stenting a small catheter is threaded through a blood vessel, eventually reaching the carotid artery. A balloon is inflated to dilate the narrowed segment of the artery and then a wire mesh stent is placed across the blockage. The stent will become a part of the artery wall as a part of the natural healing process, eventually strengthening it, widening it, and helping to prevent future blockages.

Carotid artery stenting is typically done by running the catheter through the femoral artery – a main artery in the groin. It is generally a successful procedure, but because the femoral artery is so large it takes time to close. Patients need to lie flat and still for hours post-procedure and are limited in activity in the days following to prevent complications. Unsuccessful closure can lead to serious bleeding issues.

Dr. Lahoti is the first surgeon in central Illinois to offer carotid artery stenting via the radial artery: something he calls a game changer.

"It is very exciting. And I'm glad to be in a time where the field of neuro interventional surgery is going through this phenomenal, and honestly revolutionary change, because it has completely changed the way we approach cerebrovascular diseases and the way we treat them," says Dr. Lahoti.

With the minimally invasive radial approach, a small poke is made in a patient's hand to gain access to the radial artery. The catheter is inserted, and a carotid artery stent is placed in the neck. According to Dr. Lahoti, the radial approach reduces the complications of bleeding, severe bruising and pain.

"The biggest advantage is that after we are done, we don't have to stitch anything," explains Dr. Lahoti. "We don't have to put in any device, and the artery in the wrist is much smaller than the one in the leg. And it's very easily accessible. So all we do is put a band across the wrist to save it from bleeding, and the band stays for a couple of hours, and then we are done."

Carotid artery stenting via the radial artery requires no anesthesia, and the patient is able to get up and walk around following the procedure with no restrictions, other than lifting heavy weight with that arm for a few days.

Conversely, patients who receive a stent through the femoral artery are required to remain in bed for four to six hours after the procedure.

"As soon as we're done, patients can get up. They can walk. They can move around as if they didn't have any procedure at all."

Not all patients qualify for carotid artery stenting – either through the radial artery or the groin – and some may be recommended for drug therapy or even a [carotid endarterectomy](#), where a surgeon makes an incision on the side of the neck and surgically removes the plaque inside the artery.

Dr. Lahoti says each case is evaluated on an individual level, and the most important thing is getting the blockage addressed and reducing the risk for stroke.

Many people suffering from carotid artery disease don't know they are affected. Dr. Lahoti suggests keeping up with yearly physicals with your primary care physician, and having open and honest conversations about lifestyle choices like smoking status, diet and activity levels.

For more information on carotid artery disease, its symptoms and treatments visit [osfhealthcare.org](https://www.osfhealthcare.org).