

## Patients at Risk for Carotid Artery Disease

Knowing your patients' vascular health is important to stopping stroke before it happens. **The Society for Vascular Surgery<sup>1</sup> and multiple joint US professional societies<sup>2</sup> recommend:**

- Consideration of Duplex Ultrasound Screening for patients with multiple risk factors for stroke and those with **known peripheral artery disease or other cardiovascular diseases.**
- The SVS supports asymptomatic screening if a patient has a **bruit and one or more** of the following cardiovascular risk factors:<sup>3</sup>

- History of Smoking
- Older Age
- High Blood Pressure
- High Cholesterol
- Diabetes
- Lack of Physical Activity
- Clogged Arteries - atherosclerosis is systemic



**80% of strokes from carotid disease are preventable with the help of early detection.<sup>4</sup>**  
Screening is as simple as an ultrasound or a quick check for a carotid bruit.

### We Offer All Carotid Treatment Options

- |     |       |      |     |
|-----|-------|------|-----|
| OMT | TFCAS | TCAR | CEA |
| ✓   | ✓     | ✓    | ✓   |

### Phone and Fax

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[www.sbvascularspecialists.com](http://www.sbvascularspecialists.com)

### Contact Our Vascular Specialists



**From the Left: Edward Li, MD, FACS, Daniel B. Alfson, MD, Kevin M. Casey, MD, FACS, and Sydney S Guo, MD**

# TCAR

TransCarotid Artery Revascularization

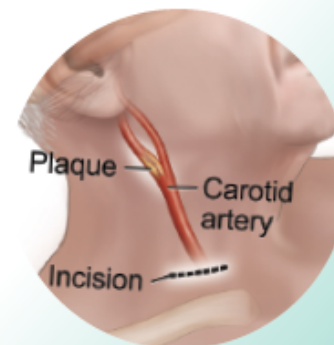


Santa Barbara  
Vascular Specialists

The less invasive standard  
in stroke prevention.



Ventura County  
Vascular Specialists



### Office Locations:

#### Santa Barbara

2621 De La Vina St. Santa Barbara, CA 93105

#### Ventura

2605 Loma Vista Rd. Ventura, CA 93003

#### Oxnard

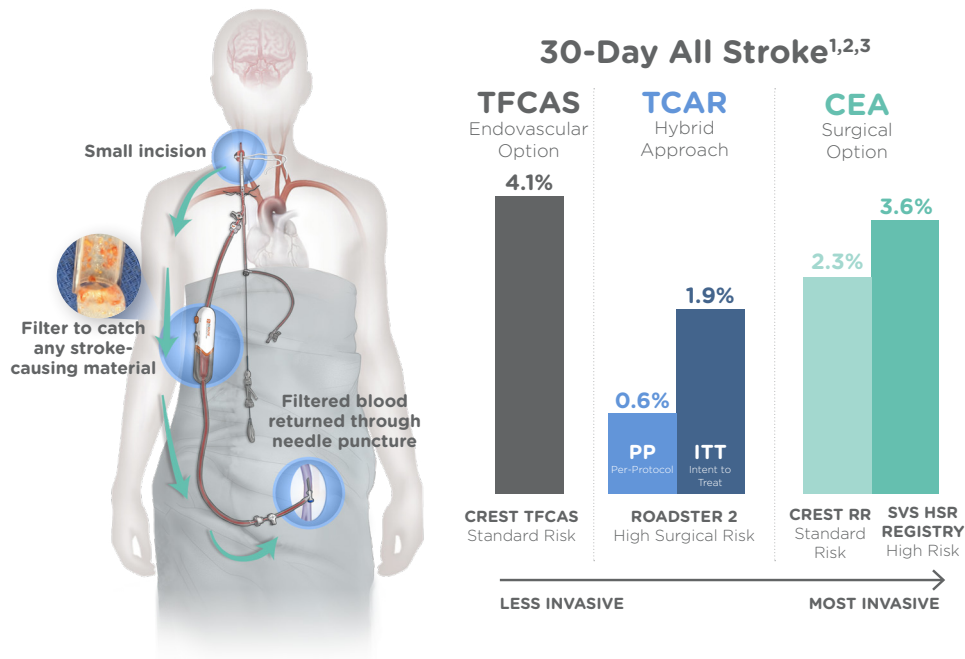
1901 Outlet Center Dr., Ste 210, Oxnard, CA 93036

1. <https://pubmed.ncbi.nlm.nih.gov/2188970/> 2. <https://pubmed.ncbi.nlm.nih.gov/21282493/> 3. <https://www.nhlbi.nih.gov/health-topics/carotid-artery-disease>  
4. <https://www.cdc.gov/stroke/facts.htm> 5. [jamanetwork.com/journals/jamanetworkopen/fullarticle/2776711](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2776711)

# TCAR

**TCAR** is a patient-friendly, endovascular procedure that incorporates the neuroprotection principles of CEA. It utilizes the ENROUTE® Transcarotid Neuroprotection System to temporarily reverse blood flow away from the brain, collecting any potential debris in the device filter, before returning the blood to a vessel in the leg.

With reverse flow neuroprotection established, the ENROUTE® Transcarotid Stent is then implanted in the lesion for long-term plaque stabilization and stroke prevention.



“The stroke rate of **0.6%** after TCAR in the per protocol population may be the lowest reported rate after **any carotid intervention.**”

- Stroke 2020; 51:2620-2629

## Benefits of a **Less Invasive Approach**

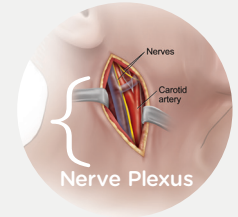
Prior to TCAR, carotid endarterectomy (CEA) was the traditional way to treat carotid artery disease surgically.

### Compared to CEA, TCAR has<sup>4</sup>

- Less risk of myocardial infarction
- Less risk of cranial nerve injury (CNI)
- Less time in the hospital >1 day
- Less time in OR
- Less clamp time
- Can be done with local vs. general anesthesia



**TCAR**  
Avoids the nerve plexus



**CEA**

Patients are **86% less likely to have CNI** from a TCAR than CEA. CNI can affect smell, taste, facial expression, speech, swallowing, and muscles of the neck.

## Benefits of a **Direct Access**

With transfemoral carotid artery stenting (TFCAS), a wire enters the body through a needle puncture in the groin.

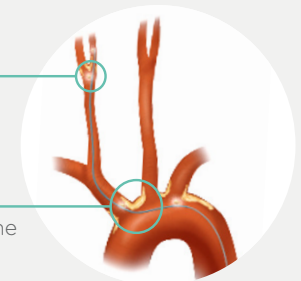
### Compared to TFCAS, TCAR:

- Avoids touching the disease unprotected
- Provides less risk of having a stroke

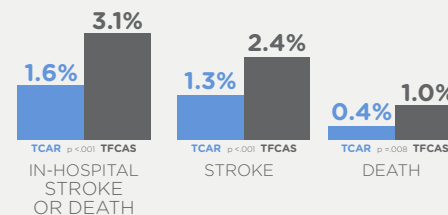
### Pitfalls of a transfemoral approach

Crossing the lesion

Crossing the aortic arch



### Microembolism Matters 30-Day Outcomes



As Seen in JAMA Dec 2019<sup>5</sup>: TCAR vs. Transfemoral Carotid Artery Stenting (TFCAS)

1. ROADSTER 2: Trial Results -Stroke. 2020;51:2620-2629; Kashyap V, Schneider P.  
2. CREST Standard Surgical Risk; N Engl J Med. 2016 Mar 17;374(11):1011-20.  
3. SVS Registry. J VascSurg. 2013 May;57(5):1318-24  
4. Ann Surg. 2020 Sep 15. doi: 10.1097/SLA.0000000000004496  
5. JAMA. 2019 Dec 17;322(23):2313-2322  
6. Society of Vascular Surgery's Patient-Resources, for more information & disclaimer: vascular.org/patient-resources/vascular-conditions/carotid-artery-disease

➤ **One in Three Strokes<sup>6</sup>**  
are caused by carotid artery disease