

# Guarding against stroke

STROKE

What you should know about carotid artery disease

**A**s people need food to be properly nourished, your brain – like the rest of your body – also needs to be nourished by oxygenated blood to function normally. Your brain tissues will be damaged or die if they do not receive enough oxygenated blood.

Narrowing or blockages in the **carotid arteries**, the blood vessels that carry blood from the heart to the brain and head, can decrease the amount of blood reaching your brain. The narrowing or blockage can be caused by a number of diseases, including **atherosclerosis** (hardening of the walls of the arteries).

Medical and surgical treatments are available for narrowing (**stenosis**) of the carotid arteries. There are fewer treatment options when there is complete blockage (**carotid artery occlusion**). Both conditions increase the risk of **stroke** (damage to the brain tissue caused by an interruption of blood supply) or **transient ischemic attack** (TIA), which is stroke-like symptoms that resolve within a few hours.

Stroke is the number one cause of disability in adults. Researchers reporting in the September 23/30, 1998, issue of *JAMA* found that some people with carotid artery occlusion are at especially high risk for another stroke.

Consult your doctor about whether you or your loved ones are at increased risk for stroke, especially if you have high blood pressure or smoke.

*Additional Sources: American College of Surgeons, American Heart Association, National Stroke Association, AMA's Encyclopedia of Medicine*

## WHAT ARE THE CAROTID ARTERIES?

Large blood vessels on both sides of the neck that deliver blood from the heart to the head and brain.

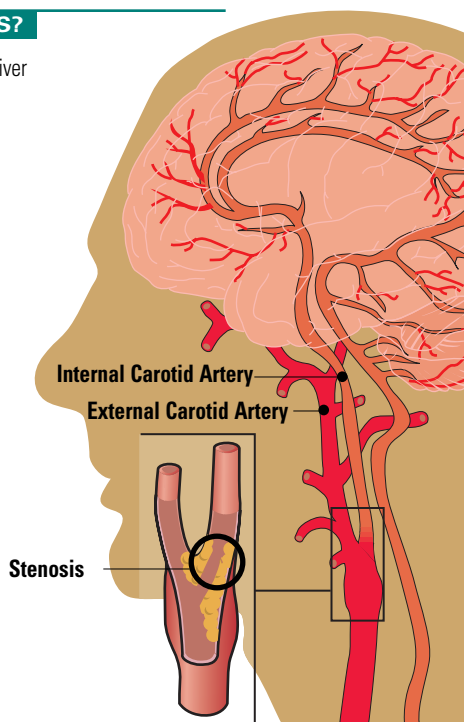
## STENOSIS VS. CAROTID ARTERY OCCLUSION:

**Stenosis** refers to narrowing of the arteries that results in partial blockage. A blood clot or piece of fatty plaque that interferes with the passage of blood can cause the narrowing or the blockage.

**Carotid artery occlusion** is the complete blockage of a carotid artery that decreases blood flow to the brain.

## DETECTION OF STENOSIS:

Your doctor may use a stethoscope to listen for a **bruit** (a sound made by abnormal blood flow through an artery) over the carotid artery in the neck. A carotid bruit may indicate carotid artery disease. Your doctor can confirm partial blockage of the carotid arteries by using ultrasound scans or a special x-ray test called **angiography**.



## SYMPTOMS OF STROKE OR TIA:

*If you experience any of the following symptoms, call an emergency number (such as 911 in the United States and Canada) for ambulance transportation to a hospital emergency department or contact your doctor immediately.*

- Sudden disturbances in sight, speech, and steadiness
- Sudden sleepiness or severe headache
- Sudden mental deterioration and memory loss
- Sudden temporary blindness in one eye or other visual defects
- Sudden numbness, weakness, or paralysis of an arm or leg or an entire side of the body
- Sudden difficulty with speech or the ability to swallow
- Coma or convulsions

## WHEN DO YOU NEED SURGERY?

**Carotid endarterectomy** is a surgical procedure that removes blockages from the carotid arteries. Surgery may be recommended for people who have more than 60% obstruction of one or both carotid arteries with or without symptoms of stroke or TIAs. Surgery may not be recommended for people with complete blockage or who are recovering from acute stroke.

## FOR MORE INFORMATION:

- National Institute of Neurological Disorders and Stroke  
Packet of information on stroke  
P.O. Box 5801  
Bethesda, MD 20824  
800/352-9424 or [www.ninds.nih.gov](http://www.ninds.nih.gov)
- American College of Surgeons  
*About Carotid Endarterectomy* #PI-12  
312/202-5391 or [www.facs.org](http://www.facs.org)

## INFORM YOURSELF:

To find this and previous *JAMA* Patient Pages, check out the AMA's Web site at [www.ama-assn.org/consumer.htm](http://www.ama-assn.org/consumer.htm). A *JAMA* Patient Page about stroke warning signs was published April 22/29, 1998.

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Mi Young Hwang, Writer

Richard M. Glass, MD, Editor

Jeff Molter, Director of Science News

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