



Wake Forest University School of Medicine  
**Women's Health Center of Excellence for Research,  
Leadership, Education**  
Fact Sheet  
**Stroke**

A stroke is when the blood supply to any part of the brain is stopped, resulting in damaged brain tissue. Strokes can result from blockages of blood flow (ischemic stroke) or bleeding in the brain (hemorrhagic stroke). Most strokes are ischemic. Stroke accounts for 1 out of every 15 deaths in the United States. It is the 3rd leading cause of death in most developed countries, and the leading cause of disability in adults.

### *Causes of stroke*

#### **Ischemic Stroke**

- ▶ *Atherosclerosis*: Fatty deposits and blood platelets collect on the wall of the arteries, forming plaques. Over time, the plaques slowly begin to block the flow of blood. The plaque itself may block the artery enough to cause a stroke.
- ▶ *Blood Clots*: In some cases, the plaque causes the blood to flow abnormally, which leads to a blood clot. A clot can stay at the site of narrowing and prevent blood flow to all of the smaller arteries it supplies. (This type of clot, which doesn't travel, is called a thrombus.) In other cases, the clot can travel and wedge into a smaller vessel. (A clot that travels is called an embolism.)
- ▶ Strokes caused by *embolism* are most commonly caused by heart disorders. An embolism may start in the aortic arch, especially where there is plaque. A clot can form in the body, and then travel to the brain, causing a stroke.
- ▶ Abnormalities in heartbeat (*arrhythmias*, such as atrial fibrillation) may contribute to clots forming.
- ▶ *Endocarditis* (an infection of the heart valves), or use of a mechanical heart valve: A clot can form on the valve, break off and travel to the brain.

#### **Hemorrhagic Stroke**

This occurs when small blood vessels in the brain become weak and burst. Some people have defects in the blood vessels of the brain that makes this more likely. The flow of blood after the break damages brain cells. This kind of stroke can also occur if a clot caused by atherosclerosis or other conditions block a vessel, which then breaks and damages surrounding tissue.

#### **Risks**

The following can increase your risk of stroke:

- ▶ Smoking    ▶ Hypertension    ▶ Heart Disease    ▶ Diabetes    ▶ Hyperlipidemia
- ▶ Medications that promote clot formation (e.g., birth control pills) may increase risk, especially if a woman smokes and is older than 35.
- ▶ Women have a higher risk of stroke during pregnancy and the weeks immediately after pregnancy.

***This information is general. If your doctor tells you something different, follow his or her instructions.***

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For more information about women's health issues, stop by our Resource Center at 2000 West First Street, Piedmont Plaza II, 1st Floor, Winston Salem, NC 27104, visit our website at [wfubmc.edu/whcoe](http://wfubmc.edu/whcoe) or contact us at (336) 713-4220. Revised June 2004