



Stewardship of the Body

“I give you thanks that I am fearfully, wonderfully made” (Ps. 139)

STROKE

The month of May is American Stroke month. Following is some information about strokes.

What is a stroke? Stroke is a disease that affects the arteries leading to and within the brain. A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or bursts. When that happens, part of the brain cannot get the blood (and oxygen) it needs, so it starts to die.

An ischemic stroke is caused by a clot obstructing the flow of blood to the brain and is the cause of 87% of strokes. It can result from a clot forming within an artery leading to or in the brain or from a clot that travels from elsewhere in the body to the brain.

A hemorrhagic stroke is caused by the rupturing of a weakened blood vessel in or near the brain. When this happens blood accumulates and compresses the surrounding brain tissue causing damage to and lack of blood flow to that part of the brain. It is the cause of 13% of strokes.

What is a TIA? A TIA or transient ischemic attack is sometimes called a “warning stroke” or “mini-stroke”. It is a temporary condition that causes stroke-like symptoms that are temporary and do not cause lasting damage. The short duration of these symptoms and lack of permanent brain injury is the main difference between TIA and stroke.

How common are strokes? In the U.S. nearly 800,000 people suffer a new or recurrent stroke each year. On average, a stroke occurs every 40 seconds. Stroke is the nation’s number 3 killer and a leading cause of long-term disability.

What are the risk factors for stroke? Some risk factors for stroke cannot be changed. They include:

- **Age** — The chance of having a stroke approximately doubles for each decade of life after age 55. While common among the elderly, a lot of people under 65 also have strokes.
- **Heredity (family history)** — Your stroke risk is greater if a parent, grandparent, sister or brother has had a stroke.
- **Race** — African Americans have a much higher risk of death from a stroke than Caucasians do. This is partly because blacks have higher risks of high blood pressure, diabetes and obesity.
- **Sex (gender)** — Stroke is more common in men than in women. In most age groups, more men than women will have a stroke in a given year. However, more than half of total stroke deaths occur in women. At all ages, more women than men die of stroke. Use of birth control pills and pregnancy pose special stroke risks for women.
- **Prior stroke, TIA or heart attack** — The risk of stroke for someone who has already had one is many times that of a person who has not. TIAs are strong predictors of stroke. A person who's had one or more TIAs is almost 10 times more likely to have a stroke than someone of the same age and sex who hasn't. TIA should be considered a medical emergency and followed up immediately with a healthcare professional. If you've had a heart attack, you're at higher risk of having a stroke, too

Some risk factors can be changed, treated or controlled. They include:

- **High blood pressure:** the leading cause of stroke and most important controllable risk factor.
- **Cigarette smoking:** nicotine and carbon monoxide in cigarette smoke damage the cardiovascular system in many ways.
- **Diabetes mellitus:** is a independent risk factor; is treatable
- **Carotid or other artery disease:** fatty deposits from atherosclerosis can narrow the arteries in the neck that supply the brain.
- **Peripheral artery disease:** narrowing of blood vessels carrying blood to leg and arm muscles caused by fatty buildups of plaque in artery walls.
- **Atrial fibrillation:** the heart's upper chambers quiver instead of beating, which causes blood to pool and clot. The clot can break off and lodge in an artery leading to the brain, causing a stroke.
- **Other heart disease:** heart failure, enlarged heart or congenital heart defects can raise the risk of stroke.
- **Sickle cell disease:** a genetic disorder in which red blood cells are abnormal, less able to carry oxygen and tend to stick to blood vessel walls, block the arteries in the brain causing a stroke.
- **High blood cholesterol:** cholesterol can help form plaque in artery walls raising the risk of clot formation and narrowing of arteries in the brain.
- **Poor diet:** high fat and sodium diets contribute to increased blood pressure and obesity which are risk factors for stroke.
- **Physical inactivity and obesity:** these can increase blood pressure, blood cholesterol, diabetes, heart disease and stroke.

Who can have a stroke? A stroke can happen to anyone at any time and at any age.

What are the signs of a stroke? Signs of a possible stroke include:

- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden severe headache with no known cause

What should be done if a person has these symptoms? A stroke is a medical emergency. For every minute treatment is delayed, more brain is lost. If you suspect someone may be having a stroke, call 9-1-1 and tell the dispatcher that you think the person may be having a stroke. Also make note of the time the symptoms first appeared; this information may be very important for the treatment team.

How are strokes treated? When arriving at the hospital, a CT scan may be done to determine if the person is having a stroke and whether the stroke is caused by a hemorrhage or a clot. If the stroke is caused by a clot, a medication called tissue plasminogen activator (tPA) can be given. This is a drug approved by the FDA to use in strokes to break up the clot and allow blood to flow to the brain again. However, this drug must be given within 3 hours of the onset of symptoms. That's why noting the time of symptoms is important. Giving tPA can reduce long-term disability from the stroke.