



Stroke and TIA Facts

*University of
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Information
for Patients*

What is a stroke?

A stroke occurs when the brain's blood flow stops or when blood leaks into brain tissue. Normally the blood carries oxygen to the brain to nourish brain cells. When the oxygen supply to a part of the brain is interrupted, brain cells in that area die. Death of brain cells means that some parts of the body may not be able to function.

There are different types of stroke:

- ischemic (iss-KEY-mik) stroke
- transient (TRANS-yent) ischemic attack, also called TIA
- hemorrhagic (hem-er-RAJ-ik) stroke

TIA, or transient ischemic attack

A TIA occurs when blood flow to the brain is blocked temporarily. TIA causes stroke symptoms that last for a short time, then go away. This is why TIAs are called “mini-strokes.” Having a TIA means there is a problem that should be corrected. **TIAs are a warning that a more serious stroke may occur. One-third of all stroke patients had TIA symptoms before their stroke. To prevent a future stroke, you must get treatment for a TIA.**

Symptoms of TIA

The symptoms you get with a TIA depend on the area of the brain affected. Symptoms may include:

- numbness, tingling, or weakness on one side of your body (in your face, arm, or leg)
- trouble talking or understanding others
- sudden confusion
- change in vision (double vision, blurred vision, dimmed vision, or loss of vision)
- trouble with swallowing

Ischemic stroke

Ischemic stroke occurs when a blood vessel in the brain is blocked and blood flow is stopped. The blockage may be from a blood clot. A clot that forms in an artery is called a thrombus (THROM-bis). A clot that forms in the heart or an artery leading to the brain is an embolus (EM-buh-lis). In ischemic stroke, the clot travels to the brain and blocks a brain artery. Oxygen is then reduced or completely cut off to that part of the brain.

Ischemic stroke has many different causes. The doctor must find the cause of the stroke to know what treatment is best for you.

Causes of Ischemic Stroke

Below is a list of the things that can cause ischemic stroke:

- hardening of the arteries, or atherosclerosis (ATH-er-oh-skler-OH-sis)
- narrowing of one of the main arteries in the neck, or carotid (kuh-RAW-tid) disease
- small vessel disease, or lacunar (lack-YOU-ner) infarction (in-FARK-shun)

continued

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- infection or inflammation of brain arteries
- irregular heart beat, or atrial (AY-tree-ol) fibrillation (fib-ril-LAY-shun)
- heart attack, or myocardial (my-oh-CAR-dee-ol) infarction (in-FARK-shun)
- small hole in the heart chamber wall, or atrial (AY-tree-ol) septal (SEP-tol) defect
- blood clotting disorder, or hypercoagulability (HI-per-co-AG-you-luh-BILL-it-ee)

Hemorrhagic stroke

Hemorrhagic stroke occurs when a blood vessel breaks and blood leaks or spills into the brain tissue. As a result, brain cells in the affected area die. There are 4 types of hemorrhagic stroke that commonly occur.

Intracerebral Hemorrhage

A small artery in the brain can break and spill blood into nearby brain tissue. Brain cells in the area are destroyed. This stroke is called an intracerebral (IN-tra-ser-EE-brol) hemorrhage (HEM-er-ij), or “ICH” for short. High blood pressure is usually the cause of this type of stroke.

Subarachnoid Hemorrhage

A large artery in the brain may become weak. It may stretch out, like a balloon filling with water. The “balloon” is called an aneurysm (AN-your-izm). The aneurysm may break, spilling blood into the space between the brain tissue and the membrane that covers the

brain. This membrane is called the arachnoid (uh-RACK-noyd) membrane. The stroke is called a subarachnoid (sub-uh-RACK-noyd) hemorrhage, or “SAH” for short.

Arterial Venous Malformation

Arteries and veins may be tangled, or malformed, at birth. This is called “AVM,” or arterial (ar-TEER-ee-ol) venous (VEEN-us) malformation. Over time, an AVM may break apart. How serious the damage is depends on where the AVM is located in the brain.

Cerebral Amyloid Angiopathy

In the elderly, small blood vessels in the brain may be weakened by deposits of protein. This condition is cerebral (ser-EE-brol) amyloid (AM-ih-loyd) angiopathy (an-jee-OP-uh-thee), or “CAA.” Frail arteries then may break, and blood leaks into the brain. How serious the damage is depends on the location and amount of bleeding from the breaks.

Resources

UPMC Stroke Institute

412-647-8080

<http://stroke.upmc.com>

American Stroke Association

toll-free 888-4-STROKE (888-478-7653)

www.strokeassociation.org

National Stroke Association

toll-free 800-STROKES (800-787-6537)

www.stroke.org



UPMC

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For help in finding a doctor or health service that suits your needs, call the UPMC Referral Service at 412-647-UPMC (8762) or 800-533-UPMC (8762).

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