Let's Talk
About...

Stroke in children

What is a stroke?

Blood brings nutrients (such as vitamins, minerals, protein, sugar) and oxygen to the brain. The brain needs these all the time. A stroke is when a part of the brain does not get enough blood, nutrients, or oxygen. If the supply stops completely, that part of the brain can quickly stop working.

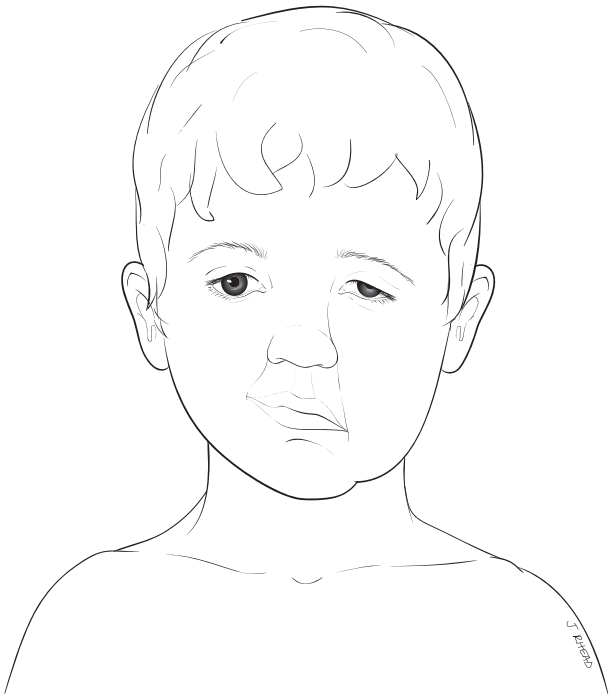
What does a stroke look like?

A stroke can be hard to recognize. But if you know what to watch for, you can catch one early, when it's most important. Most strokes happen on one side of the brain. This means that only one side of the body or face stops working properly. If you see one half of the face, mouth, or eyelid drooping, arm or leg floppiness, or sudden stumbling or falling to one side, call your doctor right away. Other signs are slurred speech, excessive drooling, or having trouble swallowing. If you are concerned, call your doctor right away!

What causes a stroke?

There are two types of stroke: ischemic stroke and hemorrhagic stroke.

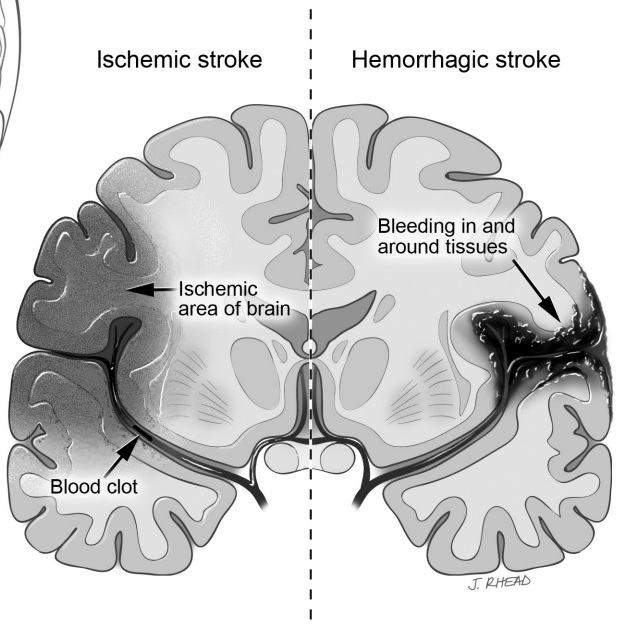
Ischemic (is-KEE-mick) stroke happens when something blocks blood from going to part of the brain. Usually, blood gets where it needs to be by going through thin tubes in the body called blood vessels (also called arteries and veins). There can be a clot (like a scab) inside a blood vessel, or something pinching or squeezing an artery from the outside. This blocks blood, nutrients, and oxygen from going where they need to go. Sometimes a clot forms somewhere else in the body, (for example, in the heart) and a piece breaks off and moves through the blood vessels. It can then travel to the brain, get stuck there, and block the blood flow. *(See picture on the next page.)*



Hemorrhagic (hem-oh-RAH-jick) stroke happens when blood vessels in the brain break or tear. Blood leaks out around the brain, and does not get to the part of the brain that needed it. Causes of hemorrhagic stroke include blood vessels that are not normal to begin with, a blood vessel that pouches out (called an **aneurysm**: AN-your-iz-um), and very high blood pressure (this cause is rare). *(See picture on the next page.)*

Can stroke be prevented?

We do not know a lot about strokes in children. Many people do not know that strokes can happen in kids. The things that cause stroke in adults, such as smoking, high blood pressure, lack of exercise, and high cholesterol, do not apply to children.



How does the doctor know it is a stroke?

Even though many signs of a stroke are easy for doctors to notice, sometimes the signs can be very hard to notice. An expert in children's strokes is needed, and every second counts. Experts such as pediatric neurologists can help figure out whether your child has had a stroke. Special tests can often help the doctor, as well.

How will the doctor treat the stroke?

The treatment that your child's doctor chooses depends on the cause of the stroke. If stroke is recognized early, doctors can do more. Once damage happens, treatment helps prevent more injury, and helps your child recover. Often, children will receive medicine or other treatments to prevent another stroke.

What will happen in the hospital?

Most often, a child with a stroke needs intensive care for about 24 to 48 hours. Sometimes this lasts for many days, depending on why the stroke happened. Once your child starts to get better, he can move to a regular hospital room. Your child may receive more studies so the doctors can figure out why the stroke happened. Almost all children who have had a stroke will receive a special test called an "MRI". An MRI is like a camera that takes special pictures inside the brain and helps the doctors see what is happening. Your child may also need a test that looks at blood vessels in the brain, neck, or heart.

Will my child have complications from the stroke?

A stroke is a very serious medical problem. Doctors cannot guarantee that a person with a stroke will recover. It is hard to know if there will be complications. This also depends on why the stroke happened, and what kind of studies and treatments the child needed.

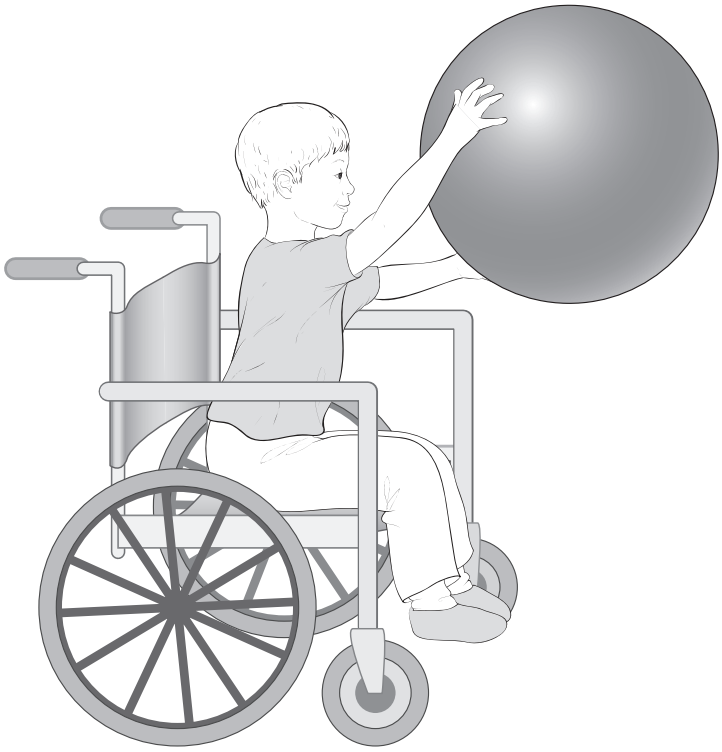
When can my child go home and what do I need to do at home?

This is hard to tell. Your doctors, nurses, therapists, and others will be with you every moment, and will

help you plan for anything you need to help your child get better at home.

What if I have more questions?

- Ask your child's pediatrician first. The doctors in the Division of Child Neurology at Primary Children's Medical Center are stroke experts and they would be happy to talk to you about stroke. You can call them at 801.587.7575, or your pediatrician can call for you.
- The World Wide Web can be hard to weed through, and some sources are better than others. The Children's Hemiplegia and Stroke Association website has good information for parents and some from children who have had a stroke, too (*http://www.chasa.org*).
- The American Heart Association and the American Stroke Association have a good webpage, too (*http://www.strokeassociation.org/STROKEORG/AboutStroke/StrokeInChildren/Stroke-In-Children_UCM_308543_SubHomePage.jsp*).
- There may be parent and patient support groups in your community. These groups can be a great way to help your child and family through this very frightening event. These can change all the time, so it's best to ask your doctor or check the internet, if you are interested.



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Pediatric Education Services, 801.662.3500 | Rev. 7/12, LTA521437348