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May is Pediatric Stroke Awareness Month

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May is Pediatric Stroke Awareness Month. During this time, medical professionals, volunteers, and parents of children having experienced stroke want to help educate your families about stroke and build a successful awareness campaign in your community. For more information, go to <http://chasa.org/tag/pediatric-stroke-awareness-month/>



What is stroke? Does it affect children differently than adults?

Stroke can affect children and adults at any age. Because a child's brain is still developing, symptoms of stroke in newborns and pre-school children are often different from adults. However, in older children, the signs and symptoms of stroke can be very similar to those in adults, but also depends upon the area of the brain affected. For newborns and children, a stroke is not typically the first thought of explanation for the symptoms. Therefore, doctors may miss or delay the diagnosis of stroke.

What causes stroke in children?

There are two types of strokes that usually affect children: **ischemic** and **hemorrhagic**. Finding the cause of the stroke is vital to providing the right treatment and preventing more injury. Doctors can find a cause in about two-thirds of the cases.

A common cause of **ischemic stroke** is due to a blood clot that forms in the heart and travels to the brain. Perinatal arterial, or ischemic stroke, is the most common form of stroke in children. Congenital heart problems such as abnormal valves or infections can also cause ischemic stroke. In these cases, children may need surgery and/or antibiotics.

Sickle cell disease is a blood disorder associated with ischemic stroke. In sickle cell disease, blood cells can't enough carry oxygen to the brain, and blood vessels leading to the brain may narrow or close. About 10 percent of children with sickle cell disease suffer a stroke. There is a high risk of repeat strokes, but a blood transfusion can help reduce the risk.

Finally, traumatic injuries to large arteries causing a loss of blood flow can cause ischemic strokes. For instance, a large artery might be injured when a child has a neck injury.

A **hemorrhagic stroke** occurs when a blood vessel on or in the brain ruptures, and blood flows into areas of the brain where it's not supposed to go. This blood may pool in brain tissues and cause a blood clot. As a result, the brain is deprived of oxygen which *may* lead to permanent brain injury. Hemorrhagic strokes occur most often due to rupturing, weakened, or malformed arteries (known as AVMs, or *arteriovenous malformations*). Certain illnesses such as *hemophilia* (the inability of the blood to clot) can cause the sufferer to bleed severely from the slightest injury. A hereditary lack of a coagulation factor may also cause hemophilia which increases the risk of hemorrhage.

What are the effects of stroke in a child?

The possible effects of stroke in a child are:

- Weakness on one side of the body
- Paralysis on one side of the body
- Unilateral neglect or one-sided neglect – causes the stroke survivor to ignore or forget his/her weaker side and usually occurs when someone has a right brain stroke

- Difficulty with speech and language
- Trouble swallowing
- Decreased field of vision and/or trouble with visual perception
- Loss of emotional control and/or changes in mood
- Difficulty with memory, judgment, and problem-solving
- Behavior or personality changes

Facts about Stroke in Infants, Children, Young Adults, and Before Birth

- Risk of stroke is highest in the first year of life and peaks during the perinatal period (a few weeks before and after birth).
- Perinatal stroke occurs in 1 in every 2800 live births (likely an underestimate).
- Doctors refer to a stroke occurring between birth and four weeks of age as a *neonatal stroke*. (Fetal stroke, prenatal stroke, and in utero stroke).
- Sixty percent of infants with a stroke diagnosis have specific symptoms such as recurrent focal seizures in the first three days of life. Their stroke will most likely be identified early.
- Forty percent of infants with early stroke do not present symptoms. Their stroke is recognized later with delays in movement, development, learning, or seizures.
- Risk of stroke from birth – 19 years is approximately 5 per 100,000 children.
- Sixty percent of the children surviving a stroke have permanent neurological problems (mild to severe).
- Stroke happens as often as brain tumors in children.

Will my child get better after experiencing stroke?

As with adults, recovery from stroke is different with every child. Prompt medical treatment and rehabilitation therapy can help maximize recovery. In general, younger people will recover more abilities than older people. Dependent upon the stroke's severity, children often recover the use of their arms and legs and their ability to speak. Children experiencing effects of stroke may need the attention of a speech-language pathologist, physical therapist, and/or occupational therapist to help regain speech, physical movement, and self-care.

Resources

American Heart Association and American Stroke Association. 2016. *Stroke in children*. Retrieved May, 2016 from: http://www.strokeassociation.org/STROKEORG/AboutStroke/StrokeInChildren/Stroke-In-Children_UCM_308543_SubHomePage.jsp#

Canadian Stroke Network. 2011. *A family guide to pediatric stroke*. Retrieved May, 2016, from: <http://www.strokebestpractices.ca/wp-content/uploads/2011/10/PEDSGuide-EN.pdf>

National Stroke Association. 2016. *Pediatric stroke*. Retrieved May, 2016, from: <http://www.stroke.org/understand-stroke/impact-stroke/pediatric-stroke>

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Helpful Products

The list of Super Duper® products below may be helpful when working with children who have special needs. Visit www.superduperinc.com and type in the **item name or number in our search engine**. If you're viewing this Handy Handout on a computer, click the links below to see the product descriptions.

MagneTalk Turns & Topics

[Item #GB-46](#)

Webber Problem Solving Photo Lotto

[Item #BGO-176](#)

Big Vocabulary Nouns Photo Cards

[Item #BIG-753](#)

Webber Photo Cards Function Pair-Ups

[Item #WFC-62](#)