

Pediatric Stroke

✓ Overview

Pediatric stroke is a rare condition. It affects 1 in every 4,000 newborns as well as about 2,000 older children each year. Strokes occur when blood flow is blocked or interrupted and are categorized in 2 ways: ischemic and hemorrhagic. **Ischemic strokes** are caused by poor blood flow due to a clot, and **hemorrhagic strokes** are caused by bleeding in the brain.

Stroke requires immediate medical attention and is life threatening. Recognizing stroke in children is often delayed or missed because of misdiagnosis of more common conditions that can look like stroke, such as epilepsy or migraines. Pediatric stroke can cause problems with the brain and spinal cord as well as cognitive and motor issues.

✓ Signs and Symptoms

Symptoms typically come on suddenly. They may include:

- weakness or numbness on one side of the body
- trouble walking or with balance/coordination
- seizures
- slurred speech or difficulty speaking/understanding language
- vision problems such as seeing double or loss of vision
- sudden drowsiness or lethargy
- severe headache especially accompanied by vomiting and sleepiness

*When stroke affects a **newborn**, symptoms may not appear until they are 4-6 months old, in the form of decreased movement or weakness of one side of the body.

✓ Risk Factors

Causes of stroke in children are different than those in adults. Risk factors for children include sickle cell disease, congenital heart defects, immune disorders, blood clotting disorders, or hidden disorders such as narrow blood vessels or tendency to form blood clots easily.

✓ Diagnosis

Diagnosis will begin with a review of your child's current symptoms and health history, as well as family history. Several tests may be done to help with diagnosis. Tests such as brain imaging studies like an MRI, blood tests, heart and blood vessel studies, an EEG for seizures, or pulse oximetry to make sure there is enough oxygen in the blood.

If your child has symptoms of stroke, call 911 immediately. **F.A.S.T.** is an easy way to remember the signs of stroke. F.A.S.T. stands for:

F is for face drooping – one side of the face is drooping or numb.

A is for arm weakness – one arm is weak or numb.

S is for speech difficulty – slurred speech or difficulty speaking.

T is for time – call 911 immediately.

✓ Recovery

Follow-up care post-stroke is extremely important for recovery. The fastest recovery usually happens within the early weeks and months after the stroke. Depending on the type of stroke, the child could experience issues with walking, seeing, speaking, reading, or develop a seizure disorder. The child will likely receive physical, occupational, and other rehabilitative therapies. Overall, quick diagnosis and treatment can help decrease the risk of long-term problems and increase recovery & function.

Movement	One-sided Neglect	Physical	Visual	Emotional	Cognitive
<ul style="list-style-type: none">• Hemiparesis: weakness on one side of the body• Hemiplegia: paralysis on one side of the body	<ul style="list-style-type: none">• Also known as unilateral neglect: ignoring or forgetting the weaker side	<ul style="list-style-type: none">• Aphasia: difficulty with speech and language• Dysphagia: trouble swallowing	<ul style="list-style-type: none">• Decreased field of vision and trouble with visual perception	<ul style="list-style-type: none">• Loss of emotional control and changes in mood	<ul style="list-style-type: none">• Problems with memory, judgment and problem-solving

*Note. All information derived from Johns Hopkins Medicine, Stanford Medicine, and the Stroke Association.

The Brain Injury Association of Virginia provides personalized Information and Referral assistance to clients, their families, and technical assistance to professionals. For information on these services, contact the Brain Injury Association of Virginia.