



Pediatric Stroke Resources

**Pediatric Strokes:
The Who, What, When and
Beyond...**

**A Patient and Family Guide
Available for download at:
www.uncstroke.org**

**The International Alliance for
Pediatric Stroke (IAPS)
www.iapediatricstroke.org**

**The American Stroke Association
www.strokeassociation.org**

**The National Stroke Association
www.stroke.org**

**These resources were created by
parents and families affected by
pediatric stroke:**

**www.bellaflies.org
www.brendonssmile.org
www.fightthestroke.org
www.pediatricstrokewarriors.org**



The Project for Expansion of Education in Pediatric Stroke (PEEPS) committee would like to thank:

- Gina Thompson, BSN, RN, CPN and Tonya Stafford, BSN, RN, Co-Authors.
- The stroke survivors, parents and caregivers that participated in the development of the content and pictures.
- The North Carolina Stroke Care Collaborative.
- The Stroke Patient, Family, Caregiver and Community Advisory Board at the University of North Carolina Medical Center.
- The Departments of Neurology and Neurosurgery at the University of North Carolina Medical Center.
- The International Alliance for Pediatric Stroke.
- North Carolina Children's Hospital.
- Rehabilitation Services at the University of North Carolina Medical Center.

References

¹ National Institutes of Health. (2014). What is a stroke? Retrieved from <http://www.nhlbi.nih.gov/health/health-topics/topics/stroke>

² American Heart Association. (2014). Strokes can happen at any age. Retrieved from http://www.strokeassociation.org/STROKEORG/AboutStroke/StrokeInChildren/What-is-Pediatric-Stroke-Infographic_UCM_466477_SubHomePage.jsp

³ Kirton, A., deVeber, G. (2013). Life after perinatal stroke. *Stroke*. 44: 3265-3271.

⁴ Roach, E.S., Golomb, M.R., Adams, R., Biller, J., Daniels, S., deVeber, G., Ferriero, D., Jones, B.V., Kirkham, F.J., Scott, M., Smith, E.R. (2008). Management of stroke in children. *Stroke*. 39: 2644-2691.

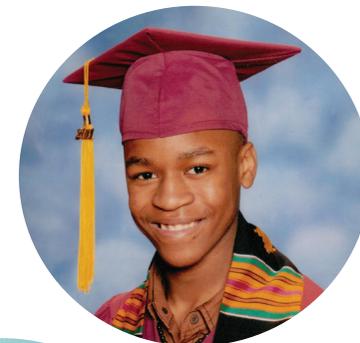
⁵ Tsze, D.S., Valente, J.H. (2011). Pediatric stroke: A review. *Emergency Medicine International*. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3255104/>

⁶ American Heart Association (2013). Facts knowing no bounds: Stroke in infants, children and youth. Retrieved from http://www.strokeassociation.org/adc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_302255.pdf



The Project for Expansion of Education in Pediatric Stroke (PEEPS)

PEDIATRIC STROKE



Information for Patients & Families

What Is A Stroke?

A 'stroke' happens when blood flow is blocked in an area of the brain. These changes in blood flow can cause brain cells to die¹. When it comes to stroke, kids are not just little adults⁶. They do share one thing in common though: quick diagnosis, treatment and therapy can help to reduce death and improve outcomes⁶.

There are two types of stroke:

Ischemic Stroke Occurs when a blood vessel is blocked.

Hemorrhagic Stroke Occurs when a blood vessel bursts within the brain.



Addison, Perinatal Stroke

“Our children are an inspiration, they are much more than a diagnosis, and they will continue to teach us all that differences can be beautiful and to never underestimate what they can overcome”

-Kaycee (Addison's Mom)

There are two age groups of strokes in kids:
Perinatal and Childhood.

Perinatal Stroke (22 weeks pregnant - 1 month old)

- About 80% are Ischemic Stroke and 20% Hemorrhagic and other causes.^{3,4}
 - In most cases, the cause is not known.
 - **Risk factors:**
 - Congenital heart disease
 - Disorders of the placenta
 - Blood clotting disorders
 - Infections, like meningitis³
 - **What to look for:**
 - Seizures:** Rhythmic face, arm or leg twitching. Pauses in breathing along with staring episodes.
 - Hand preference:** Before age one, the baby may only be using one hand or prefers using one hand over the other.
 - Developmental Delays:** As the baby grows, delays may be noticed.
 - Decreased Movement or Weakness:** usually on one side of the body.
 - **What to do:**
 - Call 911 for sudden signs of stroke**
- Notify your child's doctor if you have concerns about any of these signs.

Childhood Stroke (1 month old - 18 years old)

- About 50% are Ischemic Stroke and 50% are Hemorrhagic Stroke.⁵
- In many cases, a cause cannot be found.
- **Risk factors:**
 - Congenital heart disease
 - Disorders of brain vessels
 - Infections
 - Head injury
 - Sickle cell disease
 - Autoimmune disorders²
- **What to look for:**
 - Sudden** numbness or weakness of the face, arm or leg. Usually on one side of the body.
 - Sudden** confusion, difficulty talking or understanding.
 - Sudden** trouble seeing (loss of vision or double vision).
 - Sudden** difficulty with walking, dizziness, loss of balance or coordination.
 - Sudden** severe headache. Sudden headache with vomiting and sleepiness.
 - New **seizures** (usually on one side of the body).²
- **What to do:**
 - Call 911 for sudden signs of stroke**