



Tip sheet: Childhood strokes

This tipsheet provides information about questions you may want to ask your health care team.

Common myths:

- Children don't have strokes.
- Children recover fully from moderate to severe stroke-induced, brain injury.
- Children with brain injury recover better than adults.

What is a stroke?

A stroke occurs when an artery carrying blood to the brain is blocked by a clot or when a blood vessel in the brain bursts. Cells in and around the stroke site begin to die when cut off from blood nutrients or damaged by sudden bleeding.

How common is it in children? Studies show that:

- About six to 10 children in every 100,000 have strokes each year.
- The highest risk is in newborns up to the age of 28 days (one in every 4,000). The total number of Ontario children with strokes between 1992 and 2001 was 591 (Canadian Stroke Registry).
- SickKids sees about two to three new cases each week.
- -About 10 children with the most severe cases are hospitalized for intensive rehabilitation at Holland Bloorview each year.

What causes it?

Heart disease is most common. Other childhood risks include blood-clotting and blood-vessel problems, sickle-cell anemia and trauma, as well as illnesses like chicken pox and ear infections.

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Effects

Five per cent of Canadian newborns who have a stroke and 12 percent of older children die. Non-fatal strokes can cause brain injury and physical, learning and language problems.

Those with severe brain injuries have learning problems related to attention, memory and the ability to process information; changes in behaviour, personality and emotions; and physical problems such as one-sided weakness, seizures, speech problems or vision loss.

About 25 per cent of children with stroke have no lasting effects.

Treatment

If treated within a few hours, damaged brain cells can be saved. Warning signs include trouble moving, slurred speech, loss of sight and confusion.

According to the International Pediatric Stroke Study, most commonly children are treated with blood-thinners such as Heparin. However, the study shows that children with stroke are increasingly being treated with a protein called tissue plasminogen activator. This protein melts clots away, but can also cause severe bleeding, hasn't been tested on children, and must be used within three hours of the stroke.

Inpatient rehab

A team reviews a child's injuries and develops a treatment plan. Children attend our onsite school and receive about three hours of therapy each day. Outpatient and community services include counselling and support groups for every member of the family.