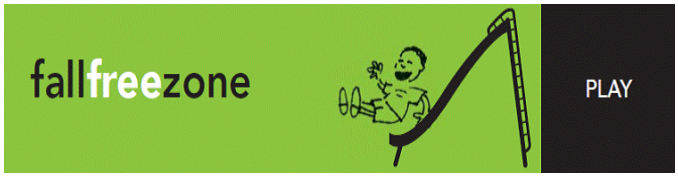

Traumatic Brain Injury (TBI) Prevention for Children Ages Birth to 19 Years

In New York State (NYS) falls are the leading cause of hospitalization due to traumatic brain injury (TBI), the most severe type of head injury, among children ages birth to 14 years.

Among children ages 15 to 19 years, falls are the second leading cause of hospitalization due to TBI among females, and the third leading cause among males.

The good news is that **you**, as a parent or caregiver, can play a major role in preventing traumatic brain injuries.

What is a traumatic brain injury (TBI)?

A traumatic brain injury, also called a TBI, is a specific type of damage to the brain that disrupts its function. Not all blows or jolts to the head result in a TBI. A TBI can occur when the head:

- is violently shaken by external force (e.g., severe whiplash, shaken baby syndrome)
- hits a stationary object (e.g., falls, hits a windshield in a car crash)
- is hit (e.g., by impact from a ball)
- is pierced (e.g., gunshot wound)

The severity of a TBI may range from "mild" (e.g., a short change in mental status or consciousness) to "severe" (e.g., an extended period of unconsciousness or amnesia after the injury).

Is a concussion a type of TBI?

Yes. A concussion is a type of brain injury caused by a bump, blow, or jolt to the head that changes the way the brain normally works. They can also occur from a blow to the body that causes the head to move rapidly back and forth.

How many children in NYS sustain sports-related TBIs?

- Between 2005 and 2007, twenty percent of children who were hospitalized for sports-related injuries sustained a TBI.

- Each year in NYS, an average of over 6,000 children ages 19 and younger are treated at a hospital for injuries sustained while using wheeled recreational equipment (such as bicycles and skateboards). Twenty percent of these children who are hospitalized had a TBI.

- In NYS, almost 3,000 children ages 19 and under are treated each year at a hospital for injuries sustained while either skiing or snowboarding. Over 15% of these children who were hospitalized and over 10% of those seen as outpatients at hospital emergency departments had a TBI.

What are the signs and symptoms of a TBI?

The signs and symptoms of a TBI can be either subtle or obvious depending on the severity of the injury.

Some common signs and symptoms of a TBI include:

- Headaches or neck pain that do not go away
- Difficulty remembering, concentrating, or making decisions
- Slowness in thinking, speaking, acting, or reading
- Getting lost or easily confused
- Feeling tired all of the time, having no energy or motivation
- Mood changes (feeling sad or angry for no reason)
- Changes in sleep patterns (sleeping a lot more or having a hard time sleeping)
- Light-headedness, dizziness, or loss of balance
- Urge to vomit (nausea)
- Increased sensitivity to lights, sounds, or distractions
- Blurred vision or eyes that tire easily
- Loss of sense of smell or taste
- Ringing in the ears

Children with a brain injury can have the same signs and symptoms as adults, but it is often harder for them to let others know how they feel. Call your child's doctor if they have had a blow to the head and you notice any of these symptoms:

- Tiredness or listlessness
- Irritability or crankiness (will not stop crying or cannot be consoled)
- Changes in eating (will not eat or nurse)
- Changes in sleep patterns
- Changes in the way the child plays
- Changes in performance at school
- Lack of interest in favorite toys or activities
- Loss of new skills, such as toilet training
- Loss of balance or unsteady walking

- Vomiting

What should I do if I think my child has a TBI?

- Seek medical attention right away. A health care provider will be able to determine if the injury is serious.
- If your child was playing a sport while his or her head was injured, do not let your child return to play until a health care professional says it is safe. Athletes who return to play too soon are at a greater risk for having a second TBI.

What are the long-term consequences of a TBI?

- TBI can cause a wide range of functional changes affecting thinking, sensation, language, and emotions.

- TBI can also cause epilepsy and increase the risk for conditions such as Alzheimer's disease, Parkinson's disease, and other brain disorders that become more prevalent with age.

- Repeated mild TBIs taking place over months or years can result in lasting physical and mental changes. Repeated mild TBIs occurring within a short period of time, such as hours, days, or even weeks, can be fatal.

How can I reduce the risk of my child having a fall-related TBI?

Make sure your child learns and practices safety rules, especially during activities where your child's head can be injured. See our other fact sheets for specific tips to prevent falls:

- At home
- While playing:
    - Team sports
    - Winter sports
    - On a playground
    - Wheeled recreation equipment (such as bicycles, scooters, skateboards, and in-line skates)

Where can I find more information about TBI prevention?

- Brain Injury Association of New York State (www.bianys.org)
- Centers for Disease Control and Prevention (www.cdc.gov/TraumaticBrainInjury/tbi_concussion.html)
- Centers for Disease Control and Prevention "Heads Up: Concussion in High School Sports Toolkit" (www.cdc.gov/TraumaticBrainInjury/coachestoolkit.html)

NYS Data Source: NYS DOH, Bureau of Injury Prevention
http://www.health.state.ny.us/prevention/injury_prevention/
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