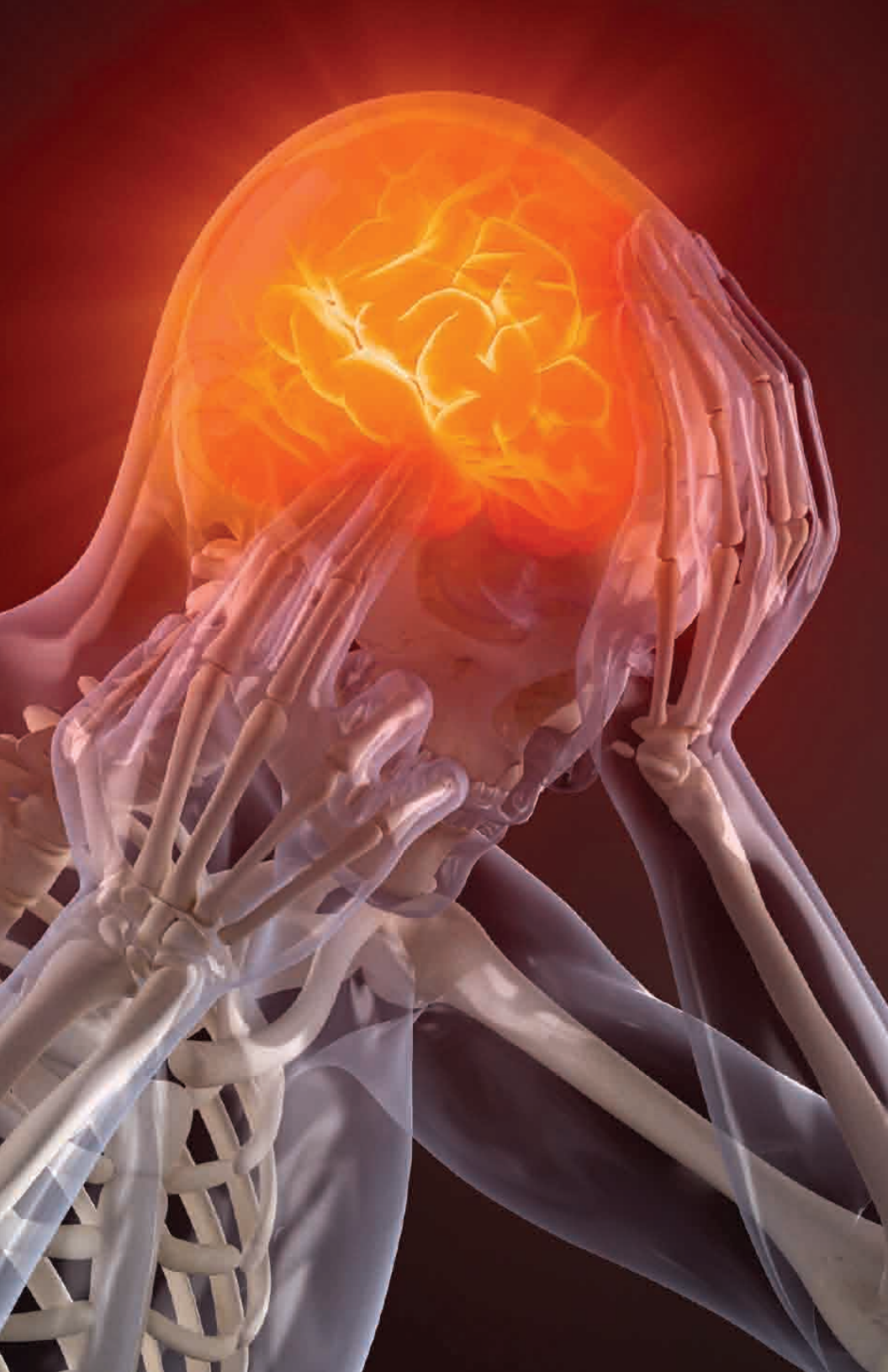


Traumatic Brain Injury

Prevention Is the Only Cure



A traumatic brain injury (TBI) is an injury to the brain or skull caused by an external force, such as a strike or impact. Brain injuries are often permanent and disabling, unlike other injuries, such as broken legs or cuts that can heal. The leading causes of TBI are falls, motor vehicle crashes, and assaults.

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**

The Burden of Traumatic Brain Injuries in New York State

Each year in New York State, TBIs result in:

- 2,100 deaths
- 18,500 hospitalizations
- 82,000 emergency department visits
- \$860 million in hospital charges

Falls, motor vehicle crashes, and assaults are the leading causes of TBI.

Who is at greatest risk?

- Males are more likely to sustain a TBI.
- Adults 65 years and older have the highest rate of TBI deaths.
- Children under the age of one and adults 65 years and older are most likely to sustain a TBI severe enough to require hospitalization; 15- to 19-year-olds have the third highest rate.
- Children under the age of one, followed by 1- to 4-year-olds, are the most likely to be treated in an emergency department for a TBI; 15- to 19-year-olds have the third highest rate.
- In motor vehicle crashes, not wearing a seat belt, alcohol, and speed are all associated with high rates of TBI.

Fall Prevention

Among Children

Falls at home, on playgrounds, and while playing sports are most common among children under the age of nine. To protect children from falls, caregivers should take the following precautions:

- **Supervision is key!** Young children should be supervised at all times around fall hazards, such as stairs and playground equipment, whether you are at home or playing outside.
- **Make home safety improvements.** Use home safety devices, such as guards on windows that are above ground level, stair gates at the top and bottom of stairs, and screens or gates around fireplaces and other dangerous areas. These devices can help keep a busy, active child from taking a dangerous tumble.
- **Play it safe on the playground.** Check to make sure the equipment is properly maintained (e.g., no cracked or broken parts) and there is a soft landing surface below, such as shredded recycled rubber mulch, pea gravel, sand, wood chips, or mulch.
- **Play sports safely.** Children must wear the appropriate protective gear for their sport, such as a helmet when biking, in-line skating, and skateboarding.



Among Older Adults

Falls are the leading cause of injury deaths, hospitalizations and emergency department visits among adults 65 and older. Falls can result in lasting, serious consequences, affecting mobility, independence, and mental health. The following simple strategies can reduce the risk of falling and improve the ability of an older adult to live longer and independently:

- **Nearly two-thirds of all hospitalizations and over a third of emergency department visits for New Yorkers ages 65 years and older are due to falls that take place in the home. Make your home safer with the following tips:**
 - Remove items you can trip over (like throw rugs, papers, books, clothes, and shoes) from stairs and other places where you walk. Items such as double-sided tape may help to keep rugs from slipping.
 - Be aware of pets and pet-related toys. They can create home hazards.
 - Keep items you use often in cabinets which you can reach easily without using a step stool.
 - Install grab bars next to your toilet and in the tub or shower. Use non-slip mats in the bathtub and on shower floors.
 - Improve the lighting in your home. As you get older, you need brighter lights to see well. Hang lightweight curtains or shades to reduce glare. Put handrails and lights in all staircases.
- **Wear shoes inside and outside the house. Avoid going barefoot or wearing slippers.**

- **Ask your health care provider to review all your medications, including over-the-counter medicines. As you get older, the way medicines work in your body can change. Some medicines, or combinations of medicines, can make you sleepy or dizzy and can cause you to fall.**
- **Get your eyes checked by an eye doctor at least once a year. You may be wearing the wrong glasses or have a condition such as glaucoma or cataracts that limits your vision. Poor vision can increase your risk of falling.**
- **Begin a regular exercise program. Physical activity makes you stronger and helps you feel better. Exercises that improve strength, balance and coordination (like Tai Chi) are the most helpful. Ask your doctor or health care provider about the best type of exercise program for you.**





Motor Vehicle Safety

Motor vehicle crashes are the leading cause of hospitalizations due to TBIs for teens and young adults 15- to 24-years-old in New York State. The best way to prevent a motor vehicle related-TBI is to always use a safety belt. Safety belts keep occupants from being tossed around inside and thrown out of the vehicle in a car crash. Frontal and side air bags, which are now common in most new motor vehicles, also reduce the risk of head injuries. The simple act of buckling up every time and in every seating position greatly reduces the risk of head injuries in a car crash. Unrestrained back seat passengers can turn into “back seat bullets” causing serious, even fatal, injuries to other restrained and unrestrained occupants in a car crash.

Car Safety Seat Recommendations for Children

Properly used and installed car safety seats protect children from serious injuries or death in a crash. Select a car safety seat based upon your child's age and size. The seat should fit your car, fit your child, be comfortable for your child and be used on every trip. Follow these guidelines by the American Academy of Pediatrics to keep your child safe in the car:



- Use a rear-facing car safety seat for infants and toddlers until they are two years old or reach the highest weight or height allowed by the manufacturer of their car safety seat.
- Use a forward-facing car safety seat with a harness for children ages two years or older, or those younger than two years old who have outgrown the rear-facing weight or height limit for their car safety seat. Keep children in forward-facing car safety seat as long as possible, up to the highest weight or height allowed by the manufacturer of their car safety seat.
- Use a belt-positioning booster seat with a lap and shoulder belt for children whose weight or height is above the forward-facing limit for their car safety seat. A booster seat should be used until the car's lap-and-shoulder seat belt fits properly, typically when they are 4 feet 9 inches tall and between 8 and 12 years.
- Use a lap-and-shoulder seat belt for children who are old enough and large enough to use the car's seat belt alone.
- Keep children under age 13 properly buckled up in the back seat of the car.

Pedestrian Safety

Each year, more than 3,600 people in New York State suffer a pedestrian-related injury severe enough to require hospitalization, and more than 360 pedestrians die. More than one-third of injured pedestrians who were hospitalized sustained a TBI. Treatment of people with a TBI results in costly medical bills and frequently lifelong rehabilitation. Children between the ages of 10-14 years and older adults aged 65 and older are most at risk for pedestrian injuries. Children are at an increased risk for pedestrian injuries because their behaviors often involve playing in or near the street. They dart into traffic and cannot accurately judge vehicle distance and speed. For older adults, physical disability, impairment, error and confusion increase their susceptibility to pedestrian injuries. Drivers and pedestrians who do not obey traffic signs and signals also contribute to pedestrian-related injuries.



All pedestrians should follow rules of the road and other important safety tips:

- Obey all traffic signs and signals.
- Stop, and look left, right and left again before entering a roadway.
- Never run into the street. Always cross at the crosswalk or corner. When crossing at an intersection, pedestrians should check for vehicles turning the corner.
- Always walk on the sidewalk. If there are no sidewalks, pedestrians should walk facing traffic.
- Make eye contact with drivers of stopped vehicles to be sure they are aware that you are crossing the street.
- Be sure to wear bright colored clothing or retro-reflective material designed to make pedestrians more visible. Bright or retro-reflective material is especially important if children are walking at dusk or at night.





Bicycle Safety

In New York State, almost 19,000 people are treated and released from hospital emergency departments each year and more than 1,650 people are more severely injured and require hospitalization as a result of bicycle crashes. More than one-third of those hospitalized have a TBI. Each year about 54 New Yorkers are killed in bicycle crashes, and an overwhelming majority of those killed were not wearing helmets. Children are at particularly high risk for bicycle-related injuries. Head injury is the leading cause of bicycle-related death, and using a helmet is the most effective way to reduce these injuries and fatalities. A properly fitted bicycle helmet can reduce the risk of traumatic brain injury by 88 percent!

To stay safe, make sure you and your child always:

- **Wear properly fitted, approved bicycle helmets while bicycling, in-line skating, riding scooters, and skateboarding. When fitted properly, bicycle helmets can reduce the risk of head injuries by 85 percent and traumatic brain injuries by 88 percent.**
- **All skateboarders and in-line skaters should wear wrist guards and a helmet. Wrist guards can help reduce the risk of fractures, while helmets protect against head injury. Protective knee and elbow pads are also helpful.**
- **Follow the rules of the road:**
 - Ride on the right side of the road with traffic.
 - Obey traffic signs and signals.
 - Use correct hand signals when turning or stopping.
 - Stop at intersections and crosswalks.
 - Stop and look both ways before entering a street.
 - Bicyclists should yield the right-of-way to pedestrians, in-line skaters, or those riding skateboards and non-motorized scooters when appropriate.



Shaken Baby Syndrome Prevention

Shaken baby syndrome is a form of child abuse that occurs when an adult violently shakes a baby or young child.

Shaking can cause a TBI, and may cause other serious outcomes such as blindness, paralysis, and death. Shaken baby syndrome is usually caused by a parent or caregiver who becomes frustrated and overwhelmed when a baby will not stop crying, or because of other stress such as difficulty feeding the baby, problems toilet training, or issues in the adult's personal life.



The following tips to prevent shaken baby syndrome should be shared with anyone who cares for a baby or young child:

- If the baby is crying, first check to make sure the child is not hungry, hot or cold, sick, or that the diaper doesn't need to be changed.
- If the baby continues to cry, try rocking the baby, rubbing their back, singing or taking them for a ride in a stroller.
- If you feel overwhelmed, it is okay to place the child in a safe place (like a crib) while you take a break for 5 or 10 minutes. Once you have relaxed, you can try again to calm the baby. It is completely normal to feel frustrated and overwhelmed sometimes when caring for a baby.

Team Sports

Playing team sports, such as football, ice hockey, soccer, baseball and softball, is an excellent way to be physically active, and can teach children sportsmanship and discipline. Unfortunately, playing sports can put a child at risk for injury, specifically, concussions. A concussion is a type of brain injury caused by a blow to the head or body that causes the brain to move quickly back and forth. Even a “ding” or “getting your bell rung” can result in a concussion and should be evaluated by a health care professional.

Limit sports-related injuries by taking the following precautions:

- Athletes should wear the right protective equipment for their activity (such as helmets, padding, shin guards, and eye and mouth guards). Protective equipment should fit properly, be well maintained, and be worn consistently and correctly.
- Athletes with suspected concussions should not return to play until they see a doctor.
- Athletes should be taught safe playing techniques and to follow the rules of the game.
- Coaches and parents should instruct athletes to report if they hit their head, even if they feel fine.
- Coaches and parents should learn the signs and symptoms of a concussion.



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