



## Concussion and Traumatic Brain Injury

### ***Traumatic Brain Injury (TBI)***

A TBI happens when there is a bump, blow or jolt to the head or a penetrating head injury that disrupts brain function.

Not all blows or jolts cause a TBI. The seriousness may be mild, like a brief change in mental status or consciousness or “severe,” like a longer time of unconsciousness or amnesia.

### ***Concussion***

A *concussion* is a kind of TBI that can change the way your brain normally works.

Concussions can happen from a fall or a blow to the body that causes the head and brain to move quickly back and forth. Even a “ding,” “getting your bell rung,” “getting your clock cleaned”, or what feels like mild bump or blow to the head can be serious.

### ***Important to Remember:***

- Concussions can happen in *any* sport or recreation activity.
- Most concussions happen with no loss of consciousness.
- Coaches, school staff, parents, and athletes need to learn concussion signs and symptoms and what to do if a concussion occurs.
- Proper response when a concussion first happens can help prevent further injury or even death.

### ***Sports and Recreation Safety Tips:***

- Teach and practice safe play.
- Follow the rules of play and practice good sportsmanship at all times.
- Wear the right safety gear (helmets, padding, shin guards, eye, mouth guards). It must fit properly, be taken care of and worn every time, even during practices.

### **For more information on TBI and Concussion:**

#### **ME Department of Education**

[www.maine.gov/education/sh/documents/concussion.pdf](http://www.maine.gov/education/sh/documents/concussion.pdf)

**ME Brain Injury Information Network**—[www.biin.org](http://www.biin.org)

#### **Centers for Disease Control and Prevention**

[www.cdc.gov/concussion/sports](http://www.cdc.gov/concussion/sports)

#### **ME Concussion Management Initiative**

[www.colby.edu/academics\\_cs/goldfarb/mcm/index.cfm](http://www.colby.edu/academics_cs/goldfarb/mcm/index.cfm)

### ***Concussion and Traumatic Brain Injury (TBI) in Maine***

- There were 263 TBI related deaths and 998 TBI related hospital discharges among Maine residents in 2008.
- During 2008, every week, on average, there were five deaths and 19 hospital discharges that were TBI related.
- Males were at significantly higher risk than other age groups for both TIB related deaths and hospital discharges.
- Nearly 2/3 of the TBI related deaths (60.1%) were unintentional, 32.7% were suicide, and 4.2% were homicide. The remaining 3% were undetermined or unknown intent.
- The three leading causes of TBI related deaths were self-inflicted firearm injury (31.9%), unintentional motor vehicle crashes (26%), and other unintentional transport incidents (4.3%; rail, water, and air, motor vehicle non-traffic, and other road vehicle incidents.)

### ***Sports and Recreation and Concussion in Maine***

In 2009, there were 375 emergency department (ED) visits at Maine hospitals related to concussions that happened during sports activities.

- 84% sports related concussion ED visits were by children and youth. 6 of every 10 (60%) were by 14-18 year olds; 20% were by 10-13 year olds, and 4% were by children under 10. Nine percent of sports related concussion ED visits were by 19-24 year olds, 6% were by 25-44 year olds, and 1% were by 45-64 year olds.
- 7 of 10 (71%) sports related concussion visits were by males.
- There was no loss of consciousness for 61% of sports related concussion ED visits. 20% of visits were associated with loss of consciousness that lasted less than one hour. Loss of consciousness of unknown length was reported for 6% of visits. For 14% of visits, no information was available about whether the patient had experienced any loss of unconsciousness or not.
- 99% of sports related concussion ED visits were discharged home.
- 44% of sports related concussion ED visits among 10-18 year olds in 2009 occurred during September and October. On average, there were two sports related concussion ED visits at Maine hospitals by 10-18 year olds each day during those two months.

**Nationally** ED visits for sports and recreation related TBI, including concussions, among children and adolescents increased by 60% during the last decade, according to the Centers for Disease Control and Prevention. CDC believes much of the increase occurred because more adults realized the youngsters needed to be seen by health care providers. TBI, rose from 153,375 in 2001 to 248,418 in 2009.