

Concussions: The “Hard” Facts

What you need to know about traumatic brain injury By Peter Marincovich, PhD, CCC-A

Identifying various forms of Traumatic Brain Injury (TBI) — mild, moderate or severe — and understanding the potential causes is everyone’s responsibility. TBI is an important public health issue due to the large number of people who acquire these injuries and their potential long-term effects. Concussions are not just sports-related and can occur from any direct blow to the head or other body part or from a concussive blast that results in impulsive or whiplash-like forces. The CDC estimates that between 1.6 million and 3.8 million concussions, or mild traumatic brain injuries (MTBIs), occur each year. Here are some other important facts about the potential causes of TBI:

- Blasts are a significant cause of MTBI
- 5 to 10% of athletes will experience a concussion in any given sports season
- Fewer than 10% of sports-related concussions involve a loss of consciousness
- Football is the most common sport with concussion risk for men (75% chance for concussion)
- Soccer is the most common sport with concussion risk for women (50% chance for concussion)
- 78% of concussions occur during games, as opposed to practices
- Some studies suggest that women are twice as likely to sustain a concussion as men
- Headache (85%) and dizziness (70% - 80%) are most commonly reported symptoms immediately following concussions by injured athletes
- An estimated 47% of athletes do not report feeling any symptoms after a concussive blow
- A professional football player will receive an estimated 900 to 1500 blows to the head during a season
- Impact speed of a professional boxer’s punch is 20 miles an hour
- Impact speed of a football player tackling a stationary player is 25 miles an hour
- Impact speed of a soccer ball being headed by a player is 70 miles an hour



suspect an injury has caused a concussion. If after a traumatic event:

- You feel dazed
- You had a loss of consciousness
- You see flashing lights
- You feel like you have lost time
- You have nausea and/or vomiting
- You are confused, feel “spacey,” or are not “thinking straight”
- You feel drowsy, or it is hard to wake up or similar changes
- You have visual acuity changes
- You have noticed balance changes
- You have ringing in your ears
- You have hearing loss, or your ears feel “full” or “plugged” and sounds seem muffled

Some symptoms may not appear right after the injury. Here are some signs to look out for the next day after a traumatic event:

- You experience a headache
- “Everything” is blurry
- You are having trouble “processing what you see”

Symptoms often are not immediate and may appear a few days after the event:

- You have slurred speech
- You can’t recognize people or places
- You develop weakness or numbness in arms or legs

If you or a loved one who has been involved in a traumatic event experiences any of these symptoms, seek medical attention immediately, as it may be an emergency:

- Changes in alertness and consciousness
- Seizures
- Muscle weakness on one or both sides
- Persistent confusion
- Remaining unconscious
- Repeated vomiting
- Unequal pupils
- Unusual eye movements
- Walking problems

NEXT STEPS

If you think you may have sustained a concussion, the first step is to seek medical attention. In addition, a complete audiology assessment of hearing, balance, tinnitus and communication is necessary. A speech assessment of cognitive-linguistic data; memory; attention; naming and listening comprehension; and visual-perceptual skills is also an integral part of a comprehensive evaluation. Communication TIPS to use when communicating with an individual with TBI are:

- Allow them time to express themselves. Be specific with questions
- Speak slowly and clearly
- Use short sentences
- Repeat complex sentences when necessary
- Allow time for them to comprehend
- Provide both spoken and written instructions and directions when appropriate
- Communicate in less complex environments both visual and auditory

Peter Marincovich is a clinical audiologist at Audiology Associates in Santa Rosa, Calif. Information for this handout was provided in part by the National Institutes of Health.

WARNING SIGNS

There are some signs you should look out for if you

DISCLAIMER: This handout is a general guide only, intended for distribution to patients. If you have specific questions, be sure to discuss them with your healthcare provider. ©2014 MERION MATTERS

