

Concussion Injury Information

Warren Hills Regional School District

Kevin Call, MS, ATC Athletic Trainer

James Goodwin, MD School Physician

Head Injuries and Concussions

Any head, face or jaw injury can result in a concussion and has the potential to be dangerous. A concussion is a brain injury which results in a temporary disruption of normal brain function. The brain is suspended in fluid within the skull and can get “shaken” with a sudden force causing injury. Similar to shaking a yolk in a egg shell. A concussion often results from a blow or jolt to the head, or from the head striking an object such as the ground or another athlete. Although less common, bleeding in the brain can occur with some head injuries. Loss of consciousness, mental status deterioration and worsening symptoms raise the concern for a bleeding injury. An athlete does not need to lose consciousness to suffer a concussion.

What are the signs and symptoms of a concussion?

Signs Observed by Others

- Appears dazed
- Is confused about what to do
- Forget plays
- Is unsure of game, score or opponen
- Moves clumsily
- Answers questions slowly
- Loses consciousness
- Shows behavior or personality changes
- Can't recall events prior to the hit
- Can't recall events after the hit
- Clear fluid or bleeding coming from the ears or nose

Symptoms Reported by Athlete

- Headache
- Nausea
- Fatigue
- Balance problems or dizziness
- Double or fuzzy vision
- Feeling sluggish or “slowed down”
- Feeling groggy or foggy
- Concentration or memory problems
- Confusion
- Light or noise sensitivity
- Ringing in the ears
- Sleeplessness or excess sleep

Observe the Athlete

Check your son or daughter frequently for any signs or symptoms after any direct or indirect head trauma. Consult a physician immediately if there is any question of a concussion.

Note that a severe or worsening headache, particularly when accompanied by vomiting or rapidly declining mental status may signal a life-threatening brain-bleeding injury.

Second Impact Syndrome

What is it?

Second Impact Syndrome is a dangerous condition that can occur if an athlete returns to sports before full recovery from a head injury. If you receive a second blow to the head, even a relatively minor one, before the initial concussion has cleared, the consequences can be deadly.

A second blow to the head after a concussion can cause the brain to lose its ability to regulate blood flow properly. Engorgement of the blood vessels occur which places excessive pressure on the brain. This pressure can result in rapid respiratory failure, coma and even death.

Prevention

Don't return to sports after a concussion until your symptoms have completely resolved and you have been cleared by your physician or athletic trainer.

Concussion Q & A

What are the most common signs and symptoms of a concussion?

According to one study, the top 3 signs/symptoms among 396 concussed athletes were headache (40%), dizziness (15%) and confusion (9%). Loss of consciousness and amnesia occurred in only 4% and 6% of the cases. This is supported by another study which found that headaches were the most commonly reported symptom following concussion, occurring in 70% to 86% of athletes.

Can my son or daughter take something for the headache?

Concussed athletes should avoid medications containing aspirin or non-steroidal anti-inflammatories (ie: Advil, Motrin), since these medicines thin the blood and may potentially increase the risk of intracranial bleeding. It is generally OK to take acetaminophen (Tylenol), but check with your physician before giving any medication.

Do I need to wake my son or daughter every few hours during the night?

There is still some considerable debate about the necessity of nighttime wake-ups. Wake-ups disrupt the athlete's normal sleep pattern, which can lead to increased symptoms the next day due to the combination of sleep deprivation and the concussion itself. However, you should wake your son or daughter to check for a decreased level of consciousness and persistent or worsening symptoms if: the athlete experienced any loss of consciousness, had a period of amnesia (memory loss or difficulty), he or she still has symptoms at bedtime, or advised by your physician or athletic trainer.

When can my son or daughter return to play?

Return to play decisions are based on concussion severity and the athlete's history of prior head injuries. For most minor concussions, return to play may occur once the athlete meets the following criteria: he/she has completed a symptom-free period (and not taking any medications to mask headache and other symptoms), has completed the stepwise activity progression, passed their ImpACT test (if applicable) and has been cleared by an appropriate medical professional. Adolescents are generally managed more conservatively than college-aged and professional athletes since they appear to be at a higher risk for Second Impact Syndrome. More severe head injuries and those who have had more than one concussion may need a longer recovery period. Concussed athletes should not return to activity until they have been cleared to do so by the physician or athletic trainer.

Does age affect how fast an athlete recovers from a concussion?

Yes. One study that compared recovery rates between NFL football players and high school football players found that high school players took longer to recover from a concussion than the NFL players. A brain that is still developing may be more sensitive to trauma, which likely affects recovery time.

References:

Gessel et al, Concussions Among United States High School and Collegiate Athletes, Journal of Athletic Training, Dec 2007.

Guskiewicz et al. National Athletic Trainers' Association Position Statement: Management of Sport-Related Concussion. Journal of Athletic Training, 2004; 39(3) 280-297.

National Federation of State High School Associations: A Parent's Guide to Concussion in Sports. <<http://www.nfhs.org/>>

Pellman et al. Concussion in Professional Football: Recovery on NFL and High School Athletes Assessed by Computerized Neuropsychological Testing. Neurology, Vol. 58, No. 2 Feb. 2006.

Sabini, R. and Reddy, C. Concussion Management and Treatment Considerations in the Adolescent Population, The Physician and Sports Medicine. April 2010, No 1, Volume 38.

This information is not intended to be, and should be not be used as a substitute for appropriate medical care. If you have any doubt about the injury, consult a physician immediately.