



Sports Shorts

GUIDELINES FOR PARENTS & ATHLETES

Concussions

WHAT IS A CONCUSSION?

A concussion is a brain injury that affects normal brain activities such as thinking, memory, problem solving, vision, balance, and many others. A concussion is a traumatic brain injury (TBI) defined by any alteration in consciousness due to a blow or strong force to the head or to the neck and body with an "impulsive" force transmitted to the head described as "whiplash" or "head snapping back."

JUST THE FACTS

- In the past 10 years, the number of 8-13 year-old children with sports related concussions has doubled while the number of 14-19 year-olds seeking treatment for head injuries has increased by 200%. (Bakhos et al., 2010)
- Between 1.6 to 3.8 million sports-related concussions occur each year in the United States. (Langlois et al., 2006)
- It has been documented that only 20% of athletes report their concussion symptoms. (Kaut et al., 2003)
- Loss of consciousness (passing out) only occurs in around 10% (1/10) of concussions. When loss of consciousness occurs, the medical personnel will likely assume there is a neck injury and take extra care.
- Young people who have a first concussion have a 4-6 times greater risk of having a second concussion. (Guskiewicz et al., 2003)
- A normal MRI or CT scan does not rule out a concussion. These tests are only used to rule out a structural injury or brain bleed.
- The majority of concussions occurring in organized sports in the U.S. are sustained in football, girls' soccer, wrestling, boys' soccer and girls' basketball.

SIGNS OBSERVED BY COACHES

- Appears dazed or stunned
- Confused about assignment or position
- Forgets sports plays
- Unsure of game score or opponent
- Moves clumsily
- Answers questions slowly
- Shows behavior or personality changes
- Can't recall events prior to or after the hit/fall

SYMPTOMS OBSERVED BY PARENTS

- Headache
- Feeling slowed down or mentally "foggy"
- Sensitivity to light or noise
- Dizziness or balance problems
- Memory problems
- Tired, easily fatigued, or difficulty sleeping
- Sleeping more or less than usual
- Emotional – argues or laughs excessively, cries easily
- Irritability and/or anxiety
- Double or blurry vision
- Nausea or vomiting

Your child may have many or only one of the above signs and symptoms to be considered to have a concussion.

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LONG TERM MEDICAL PROBLEMS FROM RECURRENT CONCUSSIONS

- Learning problems
- Concentration issues/attention deficit and hyperactivity disorder
- Increased incidence of depression
- Problems with frequent headaches
- Rarely – permanent brain damage or death from Second Impact Syndrome
- Post-concussion syndrome

EVALUATION

- Any young athlete who suffers a concussion or possible concussion should be evaluated by their pediatrician, primary care doctor, or a sports medicine professional.
- The evaluation may include a computerized test that is another useful objective tool in evaluating concussion.
 - This test evaluates memory, problem solving, reaction time, and other functions of the brain.

TREATMENT

- The treatment of concussion consists of relative physical and cognitive/mental rest. (Moser et al., 2012)
- Physical rest = rest from all sports and exertional activities
 - Mental rest = rest from loud activities (headphones, parties, dances), video games, computers, cell phones, bright light/sunlight, driving, alcohol, drugs, and even school if unable to tolerate work load and atmosphere.

An athlete should **NOT** engage in physical or cognitive activities that result in an increase in symptoms. (Harmon et al, 2013)

TAKE HOME POINTS

1. A player with any symptom should **NEVER** be permitted to return to play.
2. Follow up with your **pediatrician or sports medicine professional** is necessary for any suspicion of head injury or concussion.
3. Good quality helmets are essential for biking, snow sports, many contact sports, and inline skating to prevent skull lacerations and skull fractures. No helmet or other protective equipment has been proven to prevent or reduce a concussion.
4. When athletes have died or suffered serious complications from repeated concussions, almost all of the athletes did not report their continued concussion symptoms to their parents, athletic trainers, or doctors. **It is imperative that athletes be honest about their symptoms at all times.**
5. Coaches, parents, students and teachers should **be aware of the signs and the symptoms of concussion** to help recognize this condition early.
6. There is a variety of concussion education material available through governmental, educational, and private companies.

Concussion education websites

NCAA Concussion programme NCAA.org/concussion
CDC Concussion Education/Head Up <http://www.cdc.gov/cocussion/sports>
NFL Health and Safety NFLhealthandsafety.com

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This information is available on the Ohio AAP website www.ohioaap.org