

Concussions

Signs and Symptoms



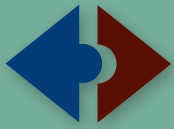
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300,000 is a large and alarming number when you consider that this is the number of reported head injuries in high school sports every year. Additionally, most feel that head injuries at the high school level are highly underreported and so this number in actuality is much larger. Of the 300,000 reported head injuries in American high schools, 250,000 are documented as resulting from football. Though football has the most reported head injuries, head injuries occur in most sporting activities even including the less obvious ones like cheerleading. The most common head injury reported in athletes is concussion.

Concussion is defined as trauma induced alteration in mental status that may or may not involve a loss of consciousness. Most concussions in sports occur when an athlete's head comes in contact with another player or the ground—this is known as acceleration-deceleration injuries.

Acceleration-deceleration injuries usually occur when the athlete's head is moving and then abruptly stops which causes the brain to hit the inside of the skull. Other concussions result from rotational injuries which happen when hits to the head or body cause rotational motion of the brain leading to shearing of the brain nerve cells. Contrary to popular belief, you don't have to physically hit your head in order to sustain a concussion.

Recently, concussions in professional athletes and the associated complications have raised an awareness for the seriousness of this injury. Research has shown that concussions can lead to long-term memory problems, concentration issues, and possibly even death with second impact syndrome. Second impact syndrome occurs when an athlete with a concussion returns to his/her sport while still symptomatic and suffers a second concussion. Because the brain is already in a fragile state, sustaining a second injury to the head can result in death. For these reasons, it is critical to diagnose and treat concussions properly.



Concussions continued

To diagnosis a concussion, it is important to look for and recognize the common signs and symptoms.

The signs include:

- Appearing dazed – the feeling of having your “bell rung”
- Confused
- Unsure of person, place, or thing
- Unsure of game, score, opponent
- Clumsy movements on the field
- Answers slowly
- Personality change (aggression)
- Forgets the “hit” as well as events prior and events after the hit
- Loss of consciousness

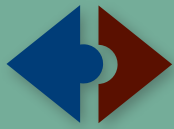
The symptoms are:

- Headache
- Nausea
- Balance issues
- Dizziness
- Vomiting
- Double vision
- Sluggish or foggy feeling
- Sensitivity to light or sound
- Fatigue
- Sleep pattern changes
- Memory problems
- Concentration difficulty

After suffering a head injury, any of the above signs and/or symptoms should be taken seriously and further evaluated by medical personnel. Diagnosing concussions should be done quickly after the injury, and then re-evaluated by a sports medicine physician through neurologic and cognitive tests. There are other tools that can help aide in diagnosing and monitoring the symptoms of concussions such as computer based testing, however these tests should only be conducted by trained professionals. It is important to note that although CT scans and MRIs can help diagnose brain bleeds, they can not diagnose or rule out concussions.

Treatment of concussions initially consists of restriction from all exertional activities until all symptoms are resolved. Then, to be cleared to return to sports a specific protocol in which the athlete needs to be physically exerted and put through a series of neurological and cognitive tests must be followed. This should be done under proper supervision by those who are familiar with concussions and return to play protocol.

Concussions are a serious injury which should be given proper consideration. Long gone are the days of “you had your bell rung, sit out a play and everything will be okay.” If an athlete is seen with any signs of a concussion, they should immediately be removed from play and evaluated to ensure safety.



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We Need Your Help

OTRF can't do it without you. There is no question that health-care is expensive and difficult for most to afford; however, to continue to make important advances in healthcare, we need everyone's help to fund research and education. To conduct its work, OTRF has been fortunate to receive large donations from larger, more affluent parties and organizations; but, it still thrives mostly on small donations from many different individuals. Most donations come from the many patients and families that Dr. Chudik directly touches in his practice. Often, it is no more than the price of a Starbucks cup of coffee; but every donation, large or small, makes a difference. Thank you for your support.

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OTRF was founded by Dr. Steven Chudik in 2007 and is a non-for profit organization dedicated to funding research and education for the purpose of keeping people active and healthy.

Injury to and degeneration (wear and tear with use and age) of our musculoskeletal system (our joints and cartilage, muscles and tendons, bones and ligaments) threaten our ability to stay active, work, and lead healthy lifestyles. Too many individuals are getting injured or developing arthritis at younger and younger ages. At alarming rates, little leaguers are injuring their elbows, young female athletes are rupturing their anterior cruciate ligaments (ACL), weekend warriors are tearing their meniscus, golfers are missing the season with rotator cuff tears, physical laborers are getting injured and are unable to work, and young adults are unable to stay active because of debilitating arthritis.

There is a great need to disseminate knowledge amongst our community so that we can better prevent these injuries and degeneration (wear and tear) and best preserve our ability to stay active and healthy. We also need to fund unbiased, quality, and cutting edge research to develop better and less invasive methods to prevent and manage these injuries and degeneration.

To meet these needs, OTRF produces the newsletter, "ACTIVE BONES," shares information regarding health performance related issues of nutrition and fitness, hosts Athletic Training educational programs, conducts local educational seminars for health care providers and the community, and most importantly funds research and development particularly in the areas of cartilage injury and repair; sports injury prevention; knee ligament injury prevention and reconstruction; and minimally invasive surgery for fracture, tendon, ligament, cartilage and joint repair.