

Concussions and High School Sports: A Growing Concern

According to the Center for Disease Control and Prevention, there are an estimated 300,000 sports-related concussions annually in the United States. Sports-related concussions are now recognized as a major public health concern, and although more research is needed, the long-term effects from them is more widespread than previously understood. The recent retirements of some high profile professional athletes resulting from recurrent concussions may have provided some increased awareness, but much work needs to be done.

Because of the high numbers of athletes participating in organized sports at the high school level, there is growing concern now on the potential impact that concussions have on these young athletes as well. There is an increased risk for those who have suffered a previous traumatic brain injury, and if the previous injury occurred within a short time period, (ie: hours, day or weeks), the results of a second TBI can be catastrophic or even fatal. This is known as second-impact syndrome. This can occur in any sport where blows to the head are common, including boxing, football, ice or roller hockey, soccer, baseball, basketball, and snow skiing. The American Academy of Neurology has proposed recommendations and guidelines to help prevent second-impact syndrome and also to help reduce cumulative brain injury. One of their strongest recommendations is that following head impact, athletes with any alteration of mental status, including transient confusion or amnesia, with or without loss of consciousness, should not return to the activity until examined by a health-care-provider familiar with the AAN guidelines.

A concussion is defined as head-trauma-induced alteration in mental status that may or may not involve loss of consciousness. No matter the extent, it is nonetheless a brain injury. There is the misconception that a person has to be “knocked out” to suffer a concussion. This is not the case. Although football and ice hockey have been identified as sports where concussions are common, research now shows that concussions can, and do, occur in just about every sporting activity. The potential consequences of “returning to the game” while still having symptoms from an initial concussion can be catastrophic, including irreversible brain damage to death.

Sports medicine professionals believe that the incidence of concussions in these contact sports is higher than those reported. Often times the athlete does not report problems for a number of reasons, including not being aware of the potential serious implications of the sometimes mild symptoms of a TBI, and fear of being taken out of the game. Symptoms of mild concussion may include headache, dizziness, loss of balance, blurred vision, seeing stars, memory problems, poor concentration, nausea or vomiting. Athletes need to be educated about the dangers of such symptoms, and the possible consequences of second-impact syndrome injury, and the importance of telling the coach, or more importantly, the health care provider on the sidelines. This is something that needs to be strongly encouraged by the coaching staff. The coaches and health care providers who are on the sidelines also need to be proactive and become aware of these symptoms. They need to recognize when a player should not be allowed to return to the game, for

how long, and when that player needs a more complete medical evaluation for a potentially more severe, underlying injury.

Parents or guardians of athletes also play an important role in understanding and recognizing both the symptoms of concussions and its potential serious consequences. The symptoms of a concussion may appear well after the game is over, perhaps within a few hours or even days. Being alert to changes in the athletes behavior at home and seeking the advice of the family doctor or health care professional could very well prevent needless tragedy and life-long impairment. It is important to listen to your athlete carefully for complaints of any of the symptoms discussed above.

For more information please log onto www.cdc.gov/ncip/tbi for more information.