

TEEN ATHLETES AND CONCUSSIONS

By Douglas E. White, MD

Autumn is a traditional time for physicians to gear up for another season of sports-related injuries. About 20 percent of children and adolescents playing organized sports are injured each year, and one in four of these injuries is considered serious. Concussions are a common serious injury, and the treatment of this condition has changed in recent years.

Concussions are mild forms of traumatic brain injury that occur most commonly after a forceful collision. They account for about five to nine percent of all injuries in high school sports. A concussion, which can occur with or without a loss of consciousness, causes a variety of neurologic symptoms. The most common symptoms are headache, dizziness, confusion, difficulty with concentration, and temporary amnesia.

As understanding of concussions has evolved, sports physicians are increasingly concerned about them. Research indicates that repeated concussions can have long-term effects on an athlete's brain function. In professional athletes, repeated concussions have been linked to mental health problems. High school athletes require more time to recover after a concussion than collegiate or professional athletes. Adolescents are also more vulnerable to repeat concussions. In one study, 71 percent of high school football players who suffered serious head injuries (brain swelling or bleeding) had suffered a previous concussion in the same season. Thirty-nine percent of these players were found to have been playing with residual concussion symptoms. Lastly, cognitive exertion such as homework, playing video games, using a computer, or even watching TV may worsen symptoms of a concussion.

The rising concern about concussions has prompted legislation in some areas of the country. For example, in July 2011 Missouri

passed a law barring any youth athlete who has sustained a concussion from competition for 24 hours. Before returning to the field, the athlete must receive written clearance from a healthcare provider.

The Sport Concussion Assessment Tool 2 (SCAT 2) is a form that was published in 2009 by several sports medicine organizations. The SCAT 2 measures the athlete's symptoms, memory and concentration abilities, balance, and coordination. Ideally, a baseline test is recorded prior to the season to document the athlete's pre-injury level of functioning, especially if there has been a prior history of concussion. Then, if an athlete suffers a concussion, tools such as this can better document the progression of the athlete's recovery.

Fortunately, concussions are relatively rare; however, they can be problematic if not managed appropriately. If a young athlete has a concussion, he or she should be removed from the field of play for that day, and a detailed examination should be conducted both at the time of injury and in the days thereafter. The athlete may need mental as well as physical rest during recovery. A full recovery should be documented before he or she returns to full participation in any sport.

For more information on concussion and sport-specific injury prevention, go to stopsportsinjuries.org, or click on the Health Resources link at intermountainhealthcare.org.

To make an appointment with a sports medicine specialist near you, we invite you to visit the provider index at the back of this publication or intermountainmedicalgroup.org.

Here's hoping all your sports activities are safe and successful!

YOU SHOULD KNOW:

- » As understanding of concussions has evolved, sports physicians are increasingly concerned about them.
- » Adolescents are more vulnerable to repeat concussions.
- » Cognitive exertion such as homework, playing video games, using a computer, or even watching TV may worsen symptoms of a concussion.
- » The SCAT 2 form may help medical teams better evaluate athletes with concussions to minimize the risk of further harm in brain function.
- » If a young athlete has a concussion, he or she should be removed from play for the day and evaluated both at the time of injury and in the days thereafter.

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