

HEADS+UP

CONCUSSION IN HIGH SCHOOL SPORTS

A FACT SHEET FOR **PARENTS**

What is a concussion?

A concussion is a brain injury. Concussions are caused by a bump, blow, or jolt to the head or body. Even a “ding,” “getting your bell rung,” or what seems to be a mild bump or blow to the head can be serious.

What are the signs and symptoms?

You can’t see a concussion. Signs and symptoms of concussion can show up right after the injury or may not appear or be noticed until days after the injury. If your teen reports **one or more** symptoms of concussion listed below, or if you notice the symptoms yourself, keep your teen out of play and seek medical attention right away.

Signs Observed by Parents or Guardians	Symptoms Reported by Athlete
<ul style="list-style-type: none"> • Appears dazed or stunned • Is confused about assignment or position • Forgets an instruction • Is unsure of game, score, or opponent • Moves clumsily • Answers questions slowly • Loses consciousness (<i>even briefly</i>) • Shows mood, behavior, or personality changes • Can’t recall events <i>prior</i> to hit or fall • Can’t recall events <i>after</i> hit or fall 	<ul style="list-style-type: none"> • Headache or “pressure” in head • Nausea or vomiting • Balance problems or dizziness • Double or blurry vision • Sensitivity to light or noise • Feeling sluggish, hazy, foggy, or groggy • Concentration or memory problems • Confusion • Just not “feeling right” or is “feeling down”

How can you help your teen prevent a concussion?

Every sport is different, but there are steps your teens can take to protect themselves from concussion and other injuries.

- Make sure they wear the right protective equipment for their activity. It should fit properly, be well maintained, and be worn consistently and correctly.

- Ensure that they follow their coaches’ rules for safety and the rules of the sport.
- Encourage them to practice good sportsmanship at all times.

What should you do if you think your teen has a concussion?

- 1. Keep your teen out of play.** If your teen has a concussion, her/his brain needs time to heal. Don’t let your teen return to play the day of the injury and until a health care professional, experienced in evaluating for concussion, says your teen is symptom-free and it’s OK to return to play. A repeat concussion that occurs before the brain recovers from the first—usually within a short period of time (hours, days, or weeks)—can slow recovery or increase the likelihood of having long-term problems. In rare cases, repeat concussions can result in edema (brain swelling), permanent brain damage, and even death.
- 2. Seek medical attention right away.** A health care professional experienced in evaluating for concussion will be able to decide how serious the concussion is and when it is safe for your teen to return to sports.
- 3. Teach your teen that it’s not smart to play with a concussion.** Rest is key after a concussion. Sometimes athletes wrongly believe that it shows strength and courage to play injured. Discourage others from pressuring injured athletes to play. Don’t let your teen convince you that s/he’s “just fine.”
- 4. Tell all of your teen’s coaches and the student’s school nurse about ANY concussion.** Coaches, school nurses, and other school staff should know if your teen has ever had a concussion. Your teen may need to limit activities while s/he is recovering from a concussion. Things such as studying, driving, working on a computer, playing video games, or exercising may cause concussion symptoms to reappear or get worse. Talk to your health care professional, as well as your teen’s coaches, school nurse, and teachers. If needed, they can help adjust your teen’s school activities during her/his recovery.

If you think your teen has a concussion:

Don’t assess it yourself. Take him/her out of play. Seek the advice of a health care professional.

It’s better to miss one game than the whole season.

For more information and to order additional materials *free-of-charge*, visit: www.cdc.gov/Concussion.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION





A Parent's Guide to Concussion in Sports

What is a concussion?

- A concussion is a brain injury which results in a temporary disruption of normal brain function. A concussion occurs when the brain is violently rocked back and forth or twisted inside the skull as a result of a blow to the head or body. An athlete does not have to lose consciousness (“knocked-out”) to suffer a concussion.

Concussion Facts

- It is estimated that over 140,000 high school athletes across the United States suffer a concussion each year. (Data from NFHS Injury Surveillance System)
- Concussions occur most frequently in football, but girl's lacrosse, girl's soccer, boy's lacrosse, wrestling and girl's basketball follow closely behind. All athletes are at risk.
- A concussion is a traumatic injury to the brain.
- Concussion symptoms may last from a few days to several months.
- Concussions can cause symptoms which interfere with school, work, and social life.
- An athlete should not return to sports while still having symptoms from a concussion as they are at risk for prolonging symptoms and further injury.
- A concussion may cause multiple symptoms. Many symptoms appear immediately after the injury, while others may develop over the next several days or weeks. The symptoms may be subtle and are often difficult to fully recognize.

What are the signs and symptoms of a concussion?

SIGNS OBSERVED BY PARENTS, FRIENDS, TEACHERS OR COACHES

Appears dazed or stunned

Is confused about what to do

Forgets plays

Is unsure of game, score, or opponent

Moves clumsily

Answers questions slowly

Loses consciousness

Shows behavior or personality changes

Can't recall events prior to hit

Can't recall events after hit

SYMPTOMS REPORTED BY ATHLETE

Headache

Nausea

Balance problems or dizziness

Double or fuzzy vision

Sensitivity to light or noise

Feeling sluggish

Feeling foggy or groggy

Concentration or memory problems

Confusion

What should I do if I think my child has had a concussion?

If an athlete is suspected of having a concussion, he or she must be immediately removed from play, be it a game or practice. Continuing to participate in physical activity after a concussion can lead to worsening concussion symptoms, increased risk for further injury, and even death. Parents and coaches are not expected to be able to “diagnose” a concussion, as that is the job of a medical professional. However, you must be aware of the signs and symptoms of a concussion and if you are suspicious, then your child must stop playing:

When in doubt, sit them out!

All athletes who sustain a concussion need to be evaluated by a health care professional who is familiar with sports concussions. You should call your child's physician and explain what has happened and follow your physician's instructions. If your child is vomiting, has a severe headache, is having difficulty staying awake or answering simple questions he or she should be taken to the emergency department immediately.

When can an athlete return to play following a concussion?

After suffering a concussion, **no athlete should return to play or practice on that same day.** Previously, athletes were allowed to return to play if their symptoms resolved within 15 minutes of the injury. Studies have shown us that the young brain does not recover quickly enough for an athlete to return to activity in such a short time.

Concerns over athletes returning to play too quickly have led state lawmakers in both Oregon and Washington to pass laws stating that **no player shall return to play following a concussion on that same day and the athlete must be cleared by an appropriate health-care professional before he or she are allowed to return to play in games or practices.** The laws also mandate that coaches receive education on recognizing the signs and symptoms of concussion.

Once an athlete no longer has symptoms of a concussion and is cleared to return to play by health care professional knowledgeable in the care of sports concussions he or she should proceed with activity in a step-wise fashion to allow the brain to re-adjust to exertion. On average the athlete will complete a new step each day. The return to play schedule should proceed as below following medical clearance:

Step 1: Light exercise, including walking or riding an exercise bike. No weight-lifting.

Step 2: Running in the gym or on the field. No helmet or other equipment.

Step 3: Non-contact training drills in full equipment. Weight-training can begin.

Step 4: Full contact practice or training.

Step 5: Game play.

If symptoms occur at any step, the athlete should cease activity and be re-evaluated by their health care provider.

How can a concussion affect schoolwork?

Following a concussion, many athletes will have difficulty in school. These problems may last from days to months and often involve difficulties with short and long-term memory, concentration, and organization.

In many cases it is best to lessen the athlete's class load early on after the injury. This may include staying home from school for a few days, followed by a lightened schedule for a few days, or perhaps a longer period of time, if needed. Decreasing the stress on the brain early on after a concussion may lessen symptoms and shorten the recovery time.

What can I do?

- Both you and your child should learn to recognize the “Signs and Symptoms” of concussion as listed above.
- Teach your child to tell the coaching staff if he or she experiences such symptoms.
- Emphasize to administrators, coaches, teachers, and other parents your concerns and expectations about concussion and safe play.
- Teach your child to tell the coaching staff if he or she suspects that a teammate has a concussion.
- Monitor sports equipment for safety, fit, and maintenance.
- Ask teachers to monitor any decrease in grades or changes in behavior that could indicate concussion.
- Report concussions that occurred during the school year to appropriate school staff. This will help in monitoring injured athletes as they move to the next season’s sports.

Other Frequently Asked Questions

Why is it so important that an athlete not return to play until they have completely recovered from a concussion?

Athletes who are not fully recovered from an initial concussion are significantly vulnerable for recurrent, cumulative, and even catastrophic consequences of a second concussive injury. Such difficulties are prevented if the athlete is allowed time to recover from the concussion and return to play decisions are carefully made. No athlete should return-to-sport or other at-risk participation when symptoms of concussion are present and recovery is ongoing.

Is a “CAT scan” or MRI needed to diagnose a concussion?

Diagnostic testing, which includes CT (“CAT”) and MRI scans, are rarely needed following a concussion. While these are helpful in identifying life-threatening brain injuries (e.g. skull fracture, bleeding, swelling), they are not normally utilized, even by athletes who have sustained severe concussions. A concussion is diagnosed based upon the athlete’s story of the injury and the health care provider’s physical examination.

What is the best treatment to help my child recover more quickly from a concussion?

The best treatment for a concussion is rest. There are no medications that can speed the recovery from a concussion. Exposure to loud noises, bright lights, computers, video games, television and phones (including text messaging) all may worsen the symptoms of a concussion. You should allow your child to rest as much as possible in the days following a concussion. As the symptoms

lessen, you can allow increased use of computers, phone, video games, etc., but the access must be lessened if symptoms worsen.

How long do the symptoms of a concussion usually last?

The symptoms of a concussion will usually go away within one week of the initial injury. You should anticipate that your child will likely be out of sports for about two weeks following a concussion. However, in some cases symptoms may last for several weeks, or even months. Symptoms such as headache, memory problems, poor concentration, and mood changes can interfere with school, work, and social interactions. The potential for such long-term symptoms indicates the need for careful management of all concussions.

How many concussions can an athlete have before he or she should stop playing sports?

There is no “magic number” of concussions that determine when an athlete should give up playing contact or collision sports. The circumstances surrounding each individual injury, such as how the injury happened and length of symptoms following the concussion, are very important and must be considered when assessing an athlete’s risk for further and potentially more serious concussions. The decision to “retire” from sports is a decision best reached following a complete evaluation by your child’s primary care provider and consultation with a physician or neuropsychologist who specializes in treating sports concussion.

I’ve read recently that concussions may cause long-term brain damage in professional football players. Is this a risk for high school athletes who have had a concussion?

The issue of “chronic encephalopathy” in several former NFL players has received a great deal of media attention lately. Very little is known about what may be causing dramatic abnormalities in the brains of these unfortunate retired football players. At this time we have very little knowledge of the long-term effects of concussions which happen during high school athletics.

In the cases of the retired NFL players, it appears that most had long careers in the NFL after playing in high school and college. In most cases, they played football for over 20 years and suffered multiple concussions in addition to hundreds of other blows to their heads. Alcohol and steroid use may also be contributing factors in some cases. Obviously, the average high school athlete does not come close to suffering the total number or shear force of head trauma seen by professional football players. However, the fact that we know very little about the long-term effects of concussions in young athletes is further reason to very carefully manage each concussion.

Some of this information has been adapted from the CDC's "Heads Up: Concussion in High School Sports" materials by the NFHS's Sports Medicine Advisory Committee. Please go to www.cdc.gov/ncipc/tbi/Coaches_Tool_Kit.htm for more information.

If you have any further questions regarding concussions in high school athletes or want to know how to find a concussion specialist in your area please contact Michael C. Koester, MD, ATC and Chair of the NFHS Sports Medicine Advisory Committee at michael.koester@slocumcenter.com.

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