



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

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
Can't recall events after hit

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.

Educational Material for Parents and Students (Content Meets MDCH Requirements)

Sources: Michigan Department of Community Health, CDC and the National Operating Committee on Standards for Athletic Equipment (NOCSAE)

UNDERSTANDING CONCUSSION

Some Common Symptoms

Headache	Balance Problems	Sensitive to Noise	Poor Concentration	Not "Feeling Right"
Pressure in the Head	Double Vision	Sluggishness	Memory Problems	Feeling Irritable
Nausea/Vomiting	Blurry Vision	Haziness	Confusion	Slow Reaction Time
Dizziness	Sensitive to Light	Fogginess	"Feeling Down"	Sleep Problems
		Grogginess		

WHAT IS A CONCUSSION?

A concussion is a type of traumatic brain injury that changes the way the brain normally works. A concussion is caused by a fall, bump, blow, or jolt to the head or body that causes the head and brain to move quickly back and forth. A concussion can be caused by a shaking, spinning or a sudden stopping and starting of the head. Even a "ding," "getting your bell rung," or what seems to be a mild bump or blow to the head can be serious. A concussion can happen even if you haven't been knocked out.

You can't see a concussion. Signs and symptoms of concussions can show up right after the injury or may not appear or be noticed until days or weeks after the injury. If the student reports any symptoms of a concussion, or if you notice symptoms yourself, seek medical attention right away. A student who may have had a concussion should not return to play on the day of the injury and until a health care professional says they are okay to return to play.

IF YOU SUSPECT A CONCUSSION:

- SEEK MEDICAL ATTENTION RIGHT AWAY** – A health care professional will be able to decide how serious the concussion is and when it is safe for the student to return to regular activities, including sports. Don't hide it, report it. Ignoring symptoms and trying to "tough it out" often makes it worse.
- KEEP YOUR STUDENT OUT OF PLAY** – Concussions take time to heal. Don't let the student return to play the day of injury and until a health care professional says it's okay. A student who returns to play too soon, while the brain is still healing, risks a greater chance of having a second concussion. Young children and teens are more likely to get a concussion and take longer to recover than adults. Repeat or second concussions increase the time it takes to recover and can be very serious. They can cause permanent brain damage, affecting the student for a lifetime. They can be fatal. It is better to miss one game than the whole season.
- TELL THE SCHOOL ABOUT ANY PREVIOUS CONCUSSION** – Schools should know if a student had a previous concussion. A student's school may not know about a concussion received in another sport or activity unless you notify them.

SIGNS OBSERVED BY PARENTS:

- Appears dazed or stunned
- Is confused about assignment or position
- Forgets an instruction
- Can't recall events prior to or after a hit or fall
- Is unsure of game, score, or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness (even briefly)
- Shows mood, behavior, or personality changes

CONCUSSION DANGER SIGNS:

In rare cases, a dangerous blood clot may form on the brain in a person with a concussion and crowd the brain against the skull. A student should receive immediate medical attention if after a bump, blow, or jolt to the head or body s/he exhibits any of the following danger signs:

- One pupil larger than the other
- Is drowsy or cannot be awakened
- A headache that gets worse
- Weakness, numbness, or decreased coordination
- Repeated vomiting or nausea
- Slurred speech
- Convulsions or seizures
- Cannot recognize people/places
- Becomes increasingly confused, restless or agitated
- Has unusual behavior
- Loses consciousness (even a brief loss of consciousness should be taken seriously.)

HOW TO RESPOND TO A REPORT OF A CONCUSSION:

If a student reports one or more symptoms of a concussion after a bump, blow, or jolt to the head or body, s/he should be kept out of athletic play the day of the injury. The student should only return to play with permission from a health care professional experienced in evaluating for concussion. During recovery, rest is key. Exercising or activities that involve a lot of concentration (such as studying, working on the computer, or playing video games) may cause concussion symptoms to reappear or get worse. Students who return to school after a concussion may need to spend fewer hours at school, take rests breaks, be given extra help and time, spend less time reading, writing or on a computer. After a concussion, returning to sports and school is a gradual process that should be monitored by a health care professional.

Remember: Concussion affects people differently. While most students with a concussion recover quickly and fully, some will have symptoms that last for days, or even weeks. A more serious concussion can last for months or longer.

To learn more, go to www.cdc.gov/concussion.

Parents and Students Must Sign and Return the Educational Material Acknowledgement Form