

## Quick Facts >

1. ALWAYS remove athletes immediately after suspecting a concussion. Do NOT allow return to play the same day with a concussion.
2. Athletes do NOT have to be knocked out to have a concussion. 90% of concussions occur without a loss of consciousness.
3. CT scans don't diagnose concussions. Everyone with a concussion has a normal CT scan.
4. It is OK to let someone fall asleep after being hit in the head. With careful monitoring, rest and sleep will be helpful.
5. "Warm Up for Return" is a graded process that requires a minimum of five days.
6. 9 out of 10 athletes will be back to normal within two weeks. They may miss a few games.
7. Kansas law requires a physician's signature (MD/DO) to "Return to Play."
8. Athletes who return to full contact too early risk Second Impact Syndrome, a rare but devastating brain injury that may result in death.
9. Concussions can affect driving, school work, sleep, emotions, relationships and self worth.
10. The "game plan" is not just about returning an athlete to their sport; it is about returning the person back to their life.

## Recognition >

### SIGNS OBSERVED BY OTHERS

- Appears dazed or stunned
- Is confused about assignment
- Forgets plays
- Is unsure of game, score or opponent
- Moves clumsily or has slurred speech
- Answers questions slowly
- Loses consciousness
- Shows behavior or personality changes
- Cannot recall events prior to hit
- Cannot recall events after hit

### SYMPTOMS REPORTED BY ATHLETE

- Headache
- Nausea or vomiting
- Balance problems or dizziness
- Double or fuzzy vision
- Sensitivity to light or noise
- Feeling sluggish or drowsy
- Feeling foggy or groggy
- Concentration or memory problems
- Confusion

## Definition >

A **concussion** is the most common form of head injury suffered by athletes. It is a form of traumatic brain injury that occurs when the brain is violently jarred back and forth or rotated inside the skull as a result of a blow to the head or body. This can "stun" the brain cells or even result in their death. You **do not** need to lose consciousness to suffer a concussion.

Any athlete in motion is at risk for a concussion. This may occur in any sport, to boys and girls alike. Symptoms may appear immediately or develop over several days. They may last a few days to several months and interfere with schoolwork and social life.

## Management >

### What key role do I play in concussion management?

As the coach/athletic trainer you play a critical role in preventing concussions and ensuring they are properly managed when it does occur. Ultimately it is all about the health and welfare of our student athletes. Insist that safety comes first. Encourage good sportsmanship at all times. Insist your athletes wear the right protective equipment for their sport. Ensure that equipment fits properly, is worn consistently and is well-maintained.

Talk with athletes and their parents about the dangers and potential long term consequences of a concussion. Review the signs and symptoms of concussion with your athletes. The "hit" may not be recognized but the symptoms should be. Your concern will be heard by your athletes and they will follow your lead.

Some players and parents wrongly believe that it shows strength and courage to play injured. Discourage anyone from pressuring an injured athlete to return too quickly, and guard against being persuaded that the athlete is "just fine." Educate yourself and your staff on this important topic.

Every concussion is potentially serious. When in doubt, sit them out!

### What should I do when a concussion is suspected?

- Immediately remove the athlete from play.
- If the athlete is stable and no severe symptoms appear, the athlete can be examined by using KSCP's sideline concussion assessment SCORE Cards or SCAT3.
- If a concussion is suspected, do not allow the athlete to return to play. Ensure the athlete is evaluated right away by an appropriate health care professional. Details on the injury, force of the impact, loss of consciousness, recognized symptoms and history of previous concussions will be helpful to the health care provider.
- Inform the athlete's parents or guardian about the possible concussion and give them the fact sheet on concussion. Ensure that the athlete has a responsible party to monitor him/her for several hours after the injury.
- Encourage rest until the athlete is symptom free.
- Assist in the education of the athlete, parents and other students as needed.
- Help monitor his/her warm-up for return to play.

### When should I send the athlete to the Emergency Room?

If severe symptoms appear, such as vomiting, severe headache, difficulty answering simple questions, declining mental status, focal neurologic deficits, loss of consciousness or seizures, call 911 or proceed to an Emergency Room immediately.

### How can I help my athlete after a concussion?

- Implement an emergency action plan at your school in conjunction with local physicians and health professionals, school nurses, athletic training staff and school officials. This will help insure a prompt coordinated effort when a concussion is suspected.

- Encourage the athlete to rest as much as possible. He/she may need frequent naps the first few days after the injury. The more aggressively the brain is rested, the sooner it will heal.
- Recommend the athlete avoid bright lights, loud noises and activities that stimulate the brain because mental rest is vital to recovery. He/she should eliminate or reduce watching television or movies, texting, reading, playing video games and browsing on the computer.
- Do not allow the athlete to perform any physical activities such as weight lifting, riding a bike, jogging, practice drills or other types of exercise or sports activities at home.
- Encourage the athlete not to drive because the symptoms from a concussion can slow his/her reaction times and possibly lead to an accident.
- Inform school officials, training staff, teachers and other athletes about the injury.
- Discuss any concerns about the athlete's recovery with his/her physician when necessary. You may be asked to regularly report on the athlete's symptoms. Notify the physician immediately if the athlete worsens. Report to the physician when the athlete's symptoms return to zero.
- Communicate regularly with your school's concussion management team during your athlete's recovery.
- For more information, consult KSCP's Return to Learn Safe Progression guide.

## Concerns >

### What are possible complications from a concussion?

While 90% of athletes are back to their baseline within 7-10 days, there are 10% of athletes who will experience prolonged symptoms or other complications.

This is called **Post-Concussive Syndrome** and occurs when symptoms from a concussion are prolonged. Difficulty with concentration, memory and persistent headaches are common symptoms.

Talk with the physician if symptoms last longer than a couple of weeks. A referral to a specialist for further evaluation and treatment may be required.

### What might happen if the athlete returns to his/her sport too soon?

If an athlete receives another blow while still recovering from a first concussion, he/she could develop **Second Impact Syndrome**. This syndrome can cause serious life-long health difficulties or, in rare situations, even result in death.

This possibility is a major reason why health care professionals are concerned about carefully treating any concussion. While the brain is still healing, it may not be able to compensate and protect itself from a new injury.

## SCORE Card >

The first health care professional that evaluates the athlete will fill out KSCP's concussion evaluation tool called **SCORE Card ①**. If this first person is not the physician who will oversee the recovery, make sure the physician receives a copy of **SCORE Card ①**. This will contain important information that the physician will use to determine how to care for the athlete's concussion and monitor his/her progression from the injury.

Discuss with the local physician the protocol for best coordinating and monitoring the athlete's recovery. You may fill out the symptom score page with the athlete on a daily basis and copy or fax to the physician.

## Return to Play >

### When can the student athlete start playing his/her sport again?

Only consider starting the Warm Up to Play progression once your student athlete is fully participating in school again without any symptoms. The student's return to sports will be a step-by-step process. Once he/she has no symptoms or signs of concussion and achieves normalized results on **SCORE Card ②**, a medical authorization will start a **Warm-up for Return ④**. This process should be monitored by an athletic trainer, coach or designated school official.

Encourage the student to tell you, their parents, the athletic staff or physician immediately if he/she does not feel quite right at any time.

### After the athlete is symptom-free, what is the progression back to play?

Think of this progression as a warm up for return to his/her sport. Each step takes at least 24 hours before moving on to the next step.

If any symptoms recur, the student should report this right away and stop for the day and rest. Before starting the progression again, the athlete must be completely symptom-free.

- Step 1.** Light aerobic exercise, including walking or riding an exercise bike. No weightlifting. (*increase heart rate*)
- Step 2.** Running in a gym or on the field. No helmet or equipment should be used. (*add movement*)
- Step 3.** Non-contact training drills and full equipment. Start light resistance training or light weight training. (*add coordination and cognitive load*)
- Step 4.** Full contact training under supervision of coach/athletic trainer. (*restore confidence and assess functional skills*)
- Step 5.** Return to competition or game play.

***The athlete must be seen by a physician (MD/DO) during the warm up progression to be legally released for return to competition or practice.***

## Other Resources >

**Kansas Law:** [www.kslegislature.org/li/b2011\\_12/year1/measures/hb2182/](http://www.kslegislature.org/li/b2011_12/year1/measures/hb2182/)

**National Federation of State High Schools:** [www.nfhslearn.com/electiveDetail.aspx?courseID=15000](http://www.nfhslearn.com/electiveDetail.aspx?courseID=15000)

**KSHSAA Guidelines:** [www.kshsaa.org/Public/General/ConcussionGuidelines.cfm](http://www.kshsaa.org/Public/General/ConcussionGuidelines.cfm)

**Centers for Disease Control and Prevention:** [www.cdc.gov/concussion/HeadsUp/youth.html](http://www.cdc.gov/concussion/HeadsUp/youth.html)

**Kansas Sports Concussion Partnership:** [www.kansasconcussion.org](http://www.kansasconcussion.org)

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