



CONCUSSIONS IN SPORTS

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Recognize the signs and symptoms of a concussion. When in doubt, sit them out!



WHAT COACHES SHOULD KNOW

American Red Cross

- A concussion is any change in an athlete's behavior, awareness, and/or physical feelings caused by a direct or indirect blow to the head.
- Any concussion has the potential to be a serious injury.
- Before letting an athlete go back to play, a concussion should be evaluated by a doctor.
- An athlete should never return to play while exhibiting any signs or symptoms of a concussion either at rest or with exertion. When in doubt, sit them out!
- There is an increased risk of suffering subsequent concussions after a first concussion.
- Any head injury associated with loss of consciousness must be treated as a suspected head, neck, or back injury.
- The only instances in which an athlete's helmet and shoulder pads should be removed is when a medical authority believes that it is necessary for the care of the athlete, or if the equipment interferes with the rescuers' ability to provide required CPR.
- If necessary to provide care for life-threatening conditions, it is recommended that the facemask be removed rather than the whole helmet. A tool to remove the facemask should be in the first aid kit.
- For any head injury, activate the Emergency Action Plan and follow the emergency action steps, Check-Call-Care.

When a player is hit he may receive a blow to the head and become unconscious or demonstrate changes in behavior. If the player regains consciousness, seems to be alert and oriented, and is eager to play, a coach may feel the player is fully recovered and allow him back into the game or practice. However, the player has suffered a concussion. Failure to recognize a concussion can potentially lead to coma and death particularly if a second impact occurs. Coaches need to be aware of the signs of concussions and treat the situation properly.

Concussions are caused by a force being transmitted to the head. The force may be caused by any direct or indirect hit to the head or body and can cause changes in behavior, awareness, or physical feeling in the injured person. Concussions often go unrecognized by coaches because they are underreported by athletes who want to continue competing. Athletes often will minimize or deny symptoms. Maintaining a high level of suspicion and having some knowledge of the individual athlete's personality helps coaches in early detection of the signals of concussion. This awareness can prevent additional concussive injury, potential long-term brain damage, or other possible catastrophic outcomes.

On-The-Field Evaluations

If there is a forceful blow to the head, with or without loss of consciousness, the coach should suspect a head injury and also be concerned that the neck or back has been injured. When caring for the player on the field, tell him not to nod or shake his head during the assessment, but to say yes or no. The player's helmet should also be left in place. The goal is to minimize movement. If the head impact has caused the player to become unconscious or show the signs of concussion listed below, activate the Emergency Action Plan and follow the emergency

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action steps, Check-Call-Care. Check the scene for safety and check the ill or injured athlete, Call 9-1-1 or the local emergency number when needed, and Care for the injured player until EMS personnel arrive.

To Care For Serious Injuries To The Head, Neck, And Back:

- Follow basic precautions to [prevent disease transmission](#).
- Minimize movement of the player's head, neck, and back by putting your hands on both sides of the player's helmet or head. Maintain an open airway using a jaw-thrust maneuver. Have the player remain in the position that you found him until EMS personnel arrive and take over.
- Monitor the player's airway, breathing, and circulation.
- If life-threatening symptoms are present, it is recommended that the facemask of the athlete's helmet be removed, rather than removing the entire helmet. This will allow access to an airway should the athlete stop breathing.
- A tool for removing the facemask should be in the team's first aid kit.
- The coach should evaluate the symptoms listed below if he suspects a player may have a concussion requiring immediate care.
- **The only instance in which an athlete's helmet and shoulder pads should be removed is when a medical authority believes that it is necessary for the care of the athlete, or if the equipment interferes with the rescuers' ability to provide CPR.**
- Symptoms that require immediate activation of the Emergency Action Plan and immediate removal to a medical facility are:
 - Period of unconsciousness;
 - Confusion, disorientation to time and place;
 - Severe headache or vomiting;
 - Appears sleepy, pale, and is sweating;
 - Blurred vision, slurred speech, and muscle weakness;
 - Neck pain.

Checking For Concussion...

If the player is removed from the field after receiving a head impact, it is important to continue evaluating the player every five minutes for at least 30 minutes.

1. Look at the facial expression of the athlete.
 - Does the athlete have a vacant stare or a confused facial expression?
2. Check the athlete's behavior.
 - Is the athlete easily distracted or slow to answer questions or follow directions?
 - Does the athlete display unusual emotional reactions, such as crying or laughing?
 - Does the athlete have a headache or complain of nausea?
 - Is the athlete irritable and easily frustrated?
 - Does the athlete appear unusually anxious or depressed?
 - Does the athlete appear sleepy?
 - Does the athlete have significantly decreased playing ability from earlier in the contest?
3. Check the athlete's orientation and memory.
 - Is the athlete aware of the time of day and date?
 - Is the athlete generally confused? Questions to ask
 - Which quarter or period is it?
 - Where are we? Which field or arena?
 - Which team are we playing?
 - Which side scored the last points?

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- Which team did the athlete play in the last game?
- Did the athlete's team win or lose in the last game?
- 4. Check for posttraumatic amnesia (the athlete's ability to remember events after the injury).
 - Ask the athlete how he got injured?
 - Ask the athlete the first thing he remembers after the injury?
 - Ask the last thing the athlete remembers before the injury?

Medical attention is required if the athlete's expression, behavior, or memory is affected. Attention should be immediate if symptoms show a deteriorating situation. When an athlete has had a concussion, he should not be allowed to return to the current game or practice, and should not be left alone. Medical evaluation following the concussion is required before a return to participation is permitted.

Postconcussion syndrome

After a player is removed from the field, he may develop symptoms of postconcussion syndrome. This can occur immediately after the injury or many hours or days later. Symptoms of postconcussion syndrome include:

- Blurred vision
- Fatigue
- Ringing in the ears
- Trouble falling asleep
- Dizziness
- Sleeping more or less than usual
- Headache
- Increased sensitivity to light and noise
- Nausea and vomiting
- Feeling more emotional than normal
- Poor coordination or balance
- Difficulty concentrating
- Increased irritability
- Difficulty remembering
- Slurred speech
- Feeling dazed or stunned
- Seeing stars or flashing lights
- Having double vision.

A physician may conduct neuropsychological testing or neuroimaging to assess exactly when the athlete has recovered from a concussion. No athlete should go back to play before being free of all symptoms and signs, both at rest and during exertion, and a physician has indicated the player is ready to return to competition.

MORE READING

American National Red Cross and the United States Olympic Committee. (1997). Sport safety training handbook. San Bruno, CA: StayWell.

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Leclerc, S., et al. (2000/2001). Retrieved from the Pashby Sports Safety Fund Concussion Website at <http://www.concussion safety.com>. NCAA Sports Medicine Handbook.

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