Aptiva Health Concussion & Sports Medicine Institute

Concussion Reference Guide

The American Association of Neurological Surgeons describes a concussion as "an injury to the brain that results in temporary loss of normal brain function. The injury is usually caused by a blow to the head. Cuts or bruises may be present on the head or face, but in many cases, there are no signs of trauma".[1] Though many people assume concussions involve a loss of consciousness, that is not always true. In many cases, a person with a concussion never loses consciousness. Due to the severity of the cumulative effects of repeated concussions, every case or potential occurrence should be handled with the utmost care. Growing concern and increased awareness has prompted many states to enact laws governing the handling head traumas such as concussions. "Between 2009 and 2013, all 50 states, and the District of Columbia, passed laws on concussions in sports for youth and/or high school athletes".[2] In 2012 Kentucky passed House Bill 281 now known as Kentucky Revised Statute 160.445.[3] In accordance with a corresponding resolution to KRS 160.445 regarding non-scholastic youth sports (HR 58[4]), the Catholic School Athletic Association (CSAA) has developed the following concussion policy and protocol.

I. Identifying Concussion

A. An athlete who exhibits any of the following signs or symptoms of concussion after a bump, blow, or jolt to the head (or a blow to the body significant enough to cause a jarring of the head or neck, regardless of whether this injury occurred during or outside of a CSAA team activity) should be *immediately* removed from play and assessed for concussion.

1. Loss of consciousness
2. Neck pain or tenderness
3. Double vision
4. Severe headache or headache that continues to worsen (i.e., "worst headache of life")
5. Seizure or convulsion
6. Deteriorating conscious state (i.e., lethargy, apparent drowsiness and difficult to arouse or keep awake)
7. Vomiting
8. Restless, agitated, or combative
9. Decreased or irregular pulse or respiration
10. Slurred speech
11. Marked difference in pupil size from right to left
12. Lying motionless on the playing surface
13. Inability to respond appropriately to questions (e.g., Where are we? Which half is it now? Who scored last in this match? Did your team win the last game?)
14. Disorientation (i.e., does not know today's date, location, or own identifying information such as name and birthdate)
15. Blank or vacant look
16. Balance/gait difficulties, motor incoordination, stumbling
17. Headache
18. "Fogginess," or confusion that does not rise to the level of not knowing place or identifying information
19. Sensitivity to light or noise

B. Sideline evaluations should be performed by a physician, athletic trainer, ARNP, or PA-C. Referral for emergency evaluation at a medical facility is at the discretion of the evaluating physician or licensed healthcare professional. The determination and subsequent instructions of such an individual are final and not appealable.

C. If one of these medical professionals is not available for a sideline assessment, coaches should withhold the athlete from further competition until a medical assessment can be arranged.

1. An athlete who exhibits any of the above "red flag" signs or symptoms (symptoms 1-14) should be immediately and safely removed from participation and evaluated by a physician. If none are available for sideline assessment, transportation for emergent medical evaluation is warranted.
2. If the athlete is unable to get up and move from the field of play, no one without the appropriate medical training should attempt to move the athlete. The athlete's helmet or any other equipment should also not be removed unless trained to do so safely. Medical assessment should include evaluation of spinal cord injury.
3. The basic principles of first aid should be followed.

D. If any of the above signs or symptoms are present, the athlete is presumed to have sustained a concussion, even if symptoms appear to improve/resolve quickly. The athlete will only be allowed to return to sport activities (including practice) once cleared by a physician or licensed health care provider whose scope of practice includes specialty training in concussion.

II. Post-Injury Management

A. The athlete should be sent home with a responsible adult (preferably a parent or guardian) who is capable of monitoring the athlete and understanding the following home care instructions. If there is any question about the status of the athlete, or if the athlete is not able to be monitored appropriately, the athlete should be referred to the emergency department for evaluation.

1. It is okay to:
   - Use acetaminophen (Tylenol) for headaches
   - Use an ice pack on the head/neck
   - Eat regularly.

- Go to sleep
- Rest or "take it easy."
- Limit or take breaks with activities that are bothersome of symptoms.

2. There is no need to:
   - Check eyes repeatedly with a flashlight
   - Wake up every hour or periodically through the night
   - Test reflexes
   - Stay in bed
   - Completely avoid screen use

3. **Do not:**
   - Take ibuprofen, aspirin, or other anti-inflammatory (NSAID) medications for the first 72 hours.
   - Return to sport participation or engage in activities with high risk for additional hits to the head.

B. The athlete should schedule an appointment for initial evaluation at a specialty concussion clinic. Athletes who receive specialty concussion care within the first 7 days post-injury recover faster and with fewer complications than athletes who wait to see specialty medical care. Recommendations for physical and mental activity after a concussion depend on many factors. Strict rest and missing school are not usually recommended after a concussion. A concussion provider can work with the athlete to develop a plan for participation in activities that will facilitate recovery.

C. The athlete is not permitted to return to practice or competition without a statement from the healthcare provider.

1. This statement may include instructions for limited sport participation or a "graduated return to play" process. If so, these instructions must be strictly followed.

2. The athlete is not permitted to return to full sport participation without restriction until formal, written clearance by their concussion specialty healthcare provider.

D. After being cleared for return to full sport participation without restriction, if the athlete should experience or exhibit a return of concussion symptoms, the athlete must immediately stop all activity and be seen for follow-up by their healthcare provider.

E. Confirmed concussions must be documented by school athletic department personnel. A copy of the documentation and healthcare provider statement regarding return-to-play must be sent to the CSAA office within 5 business days.

III. Concussion Prevention

A. All coaches, officials, and youth participants in CSAA sports are required to:

1. Strictly follow the rules of play established by the CSAA
2. Wear protective equipment as dictated by the sport. Protective and standard equipment should be periodically examined for damage and replaced, when necessary, per the manufacturer's standards. Protective equipment should be well maintained at all times.
    - Well-fitting and well-maintained safety equipment, such as helmets, can prevent more serious brain injuries and skull fractures from occurring. Use may also reduce the likelihood of concussion, but no equipment can entirely eliminate the risk of concussion during sport participation.
3. Practice good sportsmanship

IV. Concussion Education

A. With preventative measures and recovery needs in mind, education and preparation are paramount.

The following actions are mandatory:

1. Have a copy of the Aptiva Health Concussion & Sports Medicine Institute Concussion Reference Guide and Concussion Recognition Tool available on-site at all practices and competitions for reference.
2. Have all coaches, players, and parents/guardians review and comply with all aspects of this concussion reference guide.

B. The following actions are recommended:

1. Have all coaches complete the "Concussions & Head Injuries" module of the KHSAA online safety course found at www.khsaa.org
2. Have at least one individual who has successfully completed CSAA approved concussion training present during all practices and competitions.

It is the policy of the CSAA that safety of the student-athlete comes first. The decision of the on-site coaches, contest officials, and/or school athletic personnel to remove from play an athlete suspected of suffering a head trauma stands as the final ruling.

When in doubt, take the player out!

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References:

1. From "Patient Information" by the American Association of Neurological Surgeons, 2011. Retrieved from www.aans.org/Patient%20Information/Conditions%20and%20Treatments/Concussion.aspx.
2. From "Get a Heads Up on Concussion in Sports Policies" by the Center for Disease Control, 2013. Retrieved from www.cdc.gov/concussion/policies.html.
3. House Bill 281 can be found at Title XIII of the Kentucky education law in the Kentucky Revised Statutes (K.R.S.) section 160.445 dealing with school district officers and employees.
4. Resolution HR 58 may be retrieved from www.lrc.ky.gov/record/12rs/HR58.htm.
5. Consensus statement on concussion in Sport-Amsterdam, October 2022. Retrieved from https://bjsm.bmj.com/content/57/11/695
6. Association of time to initial clinic visit with prolonged recovery in pediatric patients with concussion. Retrieved from https://thejns.org/pediatrics/view/journals/j-neurosurg-pediatr/26/2/article-p165.xml