

Charter School for Applied Technologies

Concussion/Head Injury/Mild Traumatic Brain Injury (MTBI) Information

Definition:

A concussion is a type of traumatic brain injury (TBI) which alters the functioning of the brain. A concussion can occur with any bump, blow, or jolt to the head or body that causes the brain to quickly move back and forth. Concussions can occur as a result of a fall, motor vehicle accident, accident on the playground, during athletic participation, or during many other activities. All concussions are serious and need to be evaluated by a health care professional. Research indicates that between 80-90% of concussions do not involve loss of consciousness.

Signs and Symptoms:

Look for the following signs and symptoms of concussion for any student who suffered a bump, blow, or jolt to their head or body:

- Headache or head “pressure”
- Nausea/vomiting
- Dizziness/problems with balance
- Blurry or double vision
- Light or noise sensitivity
- Feeling “foggy”
- Hard time concentrating
- Hard time remembering
- Confused
- Just “doesn’t feel right”
- Unable to remember events before or after the injury
- Loss of consciousness
- Appears dazed or out of it

Prevention:

Below are ways to help reduce the risk of sustaining a concussion:

- Wear a seatbelt every time you are driving or riding in a vehicle
- Never drive or ride in a vehicle with someone who is under the influence of drugs or alcohol.
- Wear appropriate safety equipment, including properly fitted helmets such as, but not limited to when:
 - Riding a bike, motorcycle, snow mobile, or ATV.
 - Playing contact sports (football, soccer, hockey, and lacrosse).
 - Skiing, snowboarding, and sledding; horseback riding; or batting during baseball or softball/
- During any athletic participation, including practices and games:
 - Always use the recommended protective equipment for that sport. All equipment should be fitted appropriately and maintained according to the manufacturer’s recommendations.
 - Safety rules need to be followed by all participants as well as proper techniques for safe playing.
 - Learn and follow the rules of the sport being played and promptly and honestly report injuries to an adult.
 - Any student with a head injury must be removed from participation, will be referred to their healthcare provider for follow-up, and will remain out of play until proper medical documentation is submitted.

Returning to Sports/Athletics:

The district follows the International Consensus Conference Guidelines for Return to Play (RTP) to team a sports in a monitored and graduated progression of activity over six phases once the athlete is symptom free for at least 24 hours and medically cleared by their physician*. The process is detailed below:

International Consensus Conference Guidelines for Return to Play Following Head Injury/Concussion:

Phase 1 – Symptom-limited activity

Daily activities that do not provoke symptoms.
Goal: Gradual reintroduction of work/school activities.

Phase 2 – Light aerobic exercise

Walking or stationary cycle at slow to medium pace.
No resistance training.
Goal: Increase heart rate.

Phase 3 – 15 minutes of moderate cardio activity (i.e. running or biking), 20 minutes of non-contact sport specific activity (i.e. pre=practice in football, dribbling and shooting in soccer or basketball), followed by circuit training of lower body, upper body, core, and balance.

Phase 4 – 15 minutes of moderate cardio activity (i.e. running or biking), 20 minutes of non-contact sport specific drills, followed by higher impact circuit training of strength, plyometric, balance, agility, and core with running in between.

Phase 5 – Full contact training drills and intense aerobic activity for full practice duration.

Phase 6 – Return to full activities without restrictions.

For purposes of the head injury RTP protocol, an appropriate physician evaluation is completed by a practicing MD or DO within the following specialties: family medicine, pediatrics, sports medicine, neurology, or neurosurgery, with preference given to the individual's primary care physician.

Family members and friends of the family who are medical providers may not serve as appropriate physician. The physician completing the physician's evaluation form should document name degree specialty, practice name (if applicable), address, and phone number.

For additional information on traumatic brain injuries (TBIs), please visit the following websites:

<http://www.cdc.gov/concussion/HeadsUp>
<http://www.cdc.gov/TraumaticBrainInjury/>

Information on CTE (Chronic traumatic encephalopathy)

The issue of “chronic traumatic encephalopathy (CTE)” has received a great deal of media attention. Chronic Traumatic Encephalopathy (CTE) is a progressive degenerative disease of the brain found in people with a history of repetitive brain trauma (often athletes). Currently, CTE can only be diagnosed by autopsy. It has been described in the brains of professional and amateur athletes, including boxers, football players, hockey players, and soccer players, military personnel among others. CTE is not limited to current professional athletes; it has also been found in athletes who did not play sports after high school or college. In light of this, it is important to carefully manage every concussion and all concussion-like signs and symptoms on an individual basis.

Additional information on and reports concerning CTE can be found at the following sites:

Boston University CTE Research Center
<https://www.bu.edu/cte>

Boston University CTE Research Center
-Report on tackle football before the age of 12
<https://www.nytimes.com/2017/09/19/sports/football/tackle-football-brain-youth.html>

NPR Report on NFL Players with CTE
<https://www.npr.org/2017/07/25/539198429/study-cte-found-in-nearly-all-donated-nfl-player-brains>

