

CONCUSSION IN YOUTH SPORTS: A FACT SHEET FOR TEACHERS

MARLA SHAPIRO, PHD, NCSP

INDEPENDENT NEUROPSYCHOLOGY CONSULTANTS

FACTS:

- A concussion is a **brain injury**.
- Bell-ringers and dings are **concussions**.
- All concussions are **serious**.
- Concussions can occur without **loss of consciousness**.
- Concussions can occur without **memory loss**.
- Recognition and proper management of concussions when they **first occur** can prevent **further injury** or even **death**.
- Most athletes can **safely return to play** after recovery.
- Everyone recovers at their **own rate**.
- In general, the **younger** the athlete, the **longer** the recovery.
- Both **cognitive** and **physical** rest are the key to recovery.
- U.S. annual rate of sports/rec related concussions: **3.8 million**.

A **CONCUSSION** is caused by a bump or blow (usually to the head) that is hard enough to disrupt the metabolic functioning of the brain. A fall or collision with another player can cause a concussion.

It is important for athletes to report concussions because the cumulative effects of repeated concussions can result in permanent intellectual and cognitive changes.

We also know that youth appear to be more vulnerable to the effects of concussion, and that the amount of time needed to recover from concussion varies across individuals and is related to a number of factors, including age.

It is also known that REST is the best treatment after a concussion and helps the brain heal faster. If the athlete is still symptomatic, forcing him or her to exert either physically or mentally will likely lengthen the recovery period. This means abstaining from sports – including recess and PE – as well as any other activities that require sustained mental exertion, from test-taking to playing video games. Once an athlete is 100% symptom free at rest, a gradual return-to-play protocol is implemented to be sure that symptoms do not resurface with exertion. No athlete should ever return to play if concussion symptoms recur.

Management of concussion in youth is very important to prevent a rare but often fatal brain injury called **Second Impact Syndrome**. This Syndrome may occur when an athlete suffers a mild concussion and then within a short period of time (usually within one week) receives a second blow to the head. Rapid brain swelling can occur as the brain has not yet healed from the first hit. Increased intracranial pressure, if uncontrolled, can lead to death or severe neurological damage.

RECOGNIZING A CONCUSSION

To recognize a possible concussion, be alert for reports of:

A forceful blow to the head of a student that results in rapid movement of the head, **AND**
Any change in the student's behavior, thinking, and/or physical functioning

SIGNS AND SYMPTOMS

SIGNS OBSERVED BY PARENTS & TEACHERS

- Appears dazed or stunned
- Seems inattentive, careless mistakes
- Looks tired, perhaps sleepy
- Wincing at bright lights, promethium boards
- Poor recall, slower test-taking
- Trouble keeping up with notes
- Complains of headache
- Shows behavior or personality changes
- Head down on desk
- Worsening of symptoms during the day

SYMPTOMS REPORTED BY STUDENTS

- Headache or "pressure" in head
- Nausea or vomiting
- Double or blurry vision
- Sensitive to lights or noises
- Dizziness, clumsiness, sleepiness
- Feels sluggish, hazy, foggy, groggy
- Attention, concentration problems
- Memory loss
- Confusion
- Just doesn't feel "right"

PROMOTING RECOVERY IN THE STUDENT-ATHLETE

There is no substitute for **ABSOLUTE REST** - resting the brain to promote recovery.

WHEN SHOULD THE STUDENT-ATHLETE RETURN TO SCHOOL? There is no “right” answer for everyone, but students should remain home until they are able to attend class(es), even with accommodations, without a worsening of symptoms...if symptoms worsen during the day, allow them to rest (or go home) until they abate. Partial days may need to be considered.

Everyone recovers at their own rate, but the amount of time needed to recover can be impacted by a variety of factors. Pushing students to do too much too soon only slows, and prolongs, the recovery process.

CLASSROOM ACCOMMODATIONS FOR STUDENTS WITH CONCUSSIONS

Students with symptoms and/or neuropsychological dysfunction after a concussion often need support to perform school-related activities. The teaching team should work collaboratively with the student and parents to develop an accommodation plan to prioritize classes and assignments during the student’s recovery period, and to develop a plan for a gradual return to the classroom and a full workload. In most cases, a formal 504 Plan isn’t needed.

Just as we recommend a *gradual* return to sport, a *gradual* return to the classroom is sometimes needed.

Many students with a concussion report increased problems paying attention or concentrating, needing more time to complete tasks or assignments, increased problems remembering or learning new information, greater irritability and less tolerance for frustration, and a worsening of symptoms when completing schoolwork. School personnel should watch for these symptoms during classes and suggest rest breaks when observed. Rest can include resting in / during class, or lying down in a quiet room.

Consider modifications to classwork, assignments and tests in order to lighten cognitive load, such as assistance with note-taking, outlines vs. full reports, oral vs. written exams, dark glasses, shortened assignments, etc.

Avoid testing if at all possible. If not possible, provide testing accommodations to minimize the impact of concussive symptoms (such as extra breaks, reduced distractions, preferential scheduling, and extended time).

Encourage use of elevators, and changing classes just before or after the period ends to avoid loud, busy hallways.

Participation in band / choir should be suspended until symptoms abate significantly.

Significant symptoms at the end of the day are often an indication of over-exertion during the day. As recovery continues, students can increase the length of time working without a break, and supports and accommodations can be gradually withdrawn.

There is no return to sport (including P.E.) until students are 100% symptom free at rest, with a full cognitive (academic) load.

Check-in often with your student, and do not wait for him/her to complain of symptoms. Instead of asking “How are you?” ask about the presence of specific symptoms such as headache, fatigue, sensitivity to lights, etc., and if symptoms are getting any worse, or better. Recommend breaks if symptoms worsen or recur, and notify parents.

**For more information, see (CI website)
and www.cdc.gov/injury.**

Dr. Shapiro is a licensed psychologist, Credentialed ImPACT Consultant, founding member of the Sports Neuropsychology Society and an RRCA certified running coach. She works with an athlete's primary care physician, allied health care professionals, school, and coaches as needed in order to evaluate the effects of a concussion, develop a comprehensive concussion management plan, and determine when it is safe for the athlete to return to sports. Dr. Shapiro is also available to work with schools, teams and leagues to provide concussion education to coaches, parents and athletes, and to implement baseline testing programs. Contact Dr. Shapiro at (404) 937-3107 or mshapiro@ganeuropsych.com.