

## Clinical Corner

### Returning Student-athletes to School after a Concussion

by Ronald C. Savage, Ed.D.

A concussion is a mild traumatic brain injury. Concussions in student-athletes occur in many sports, including football, basketball, hockey, gymnastics, field hockey and cheerleading. When a student-athlete sustains a concussion, he or she should be immediately removed from the game and some type of “side line evaluation” should be used to measure the concussion severity. As recommended by the NJ BIA Sports Concussion Committee, “*when in doubt, keep the athlete out*”. While many professional sports teams evaluate and monitor their athletes, colleges, high schools and elementary schools often do not. Even though our student-athletes do not make the money that professionals make, they are just as “valuable” to us. Thus, student-athletes who sustain concussions need to be measured, monitored and managed by a “concussion team” including the coach, athletic trainer, physician, parents, teachers, school nurse, school psychologist and concussion specialists.

In order to *measure* the severity of a concussion, we need to look at the symptoms. Concussion results in immediate chemical changes within the nerve cells of the brain, which usually return to normal over several days or weeks. The early signs of concussion may include: confusion, dizziness, headache, nausea, vomiting, and lightheadedness. Later signs of concussion may include: persistent headache, poor attention, irritability, restlessness, ringing in the ears, depressed mood, lightheadedness, memory problems, blurry vision, fatigue and anxiety. It is important for the student-athlete to not only be measured for the early signs of concussion after being taken out of the game, but to also be monitored for later signs of concussion when they return home and to school. Student-athletes should never participate in any physical activity if any sign or symptom of concussion is present.

Coaches and athletic trainers should inform school teaching staff, including the school nurse, that the student-athlete sustained a concussion. Then *monitoring procedures* can be put into place to support the student’s return to school. If a student-athlete badly sprained an ankle, he or she would be told to “rest and recuperate” and to stay off the ankle for a period of time so the injury could heal. The same protocol needs to be put in place for a student who sustains a concussion. The student’s brain also needs rest and time to heal after

being bruised. Yet, the student returns to school and still has to attend classes, take tests, and do homework assignments. While we would not ask a student with a sprained ankle to still “run laps”, this is similar to what we ask a concussed student to do when they go back to school. They may not be returning to the sport itself, but their brains are still required to perform at the same level before their concussions.

Teachers, the school nurse, the school psychologist, and parents may find that while the student “looks OK”, that he or she is “not quite right” or “seems a little off”. School professionals and parents will need to reduce the work load and expectations for the student-athlete while they recover from the concussion. They also need to monitor changes in the student, such as does the student:

- Become restless or agitated
- Forget things or gets mixed up about time and place
- Not pay attention or not be able concentrate for longer periods of time
- Have problems with words, sentences, or understanding others
- Take longer to get things done and processes slowly
- Act without thinking, becomes easily upset, or has sudden mood changes
- Tire easily or needs extra sleep or is restless
- Become bothered by lights, noise and activity levels
- Have a harder time learning new information
- Get lower grades on assignments, quizzes, tests
- Hand in assignments late and misunderstands the assignment
- Show less interest in school or argues with classmates

If any of these changes persist after the student returns to school, school professionals can *manage* these changes over the next few days or weeks by developing a plan that reduces the student’s work load and even time spent in school to allow the brain to rest and heal. School professionals may find it helpful to the student to:

- Reduce total time in school and re-build it slowly
- Have someone to *check in* with and *check out* with everyday to make sure the student has class assignments, schedule, books, etc.
- Reduce the assignments and class work load

- Give the student additional time to finish school work, answer questions in class, and take tests
- Use outlines, study guides, step-by-step worksheets to help the student keep new learning activities organized
- Give the student a notebook with written instructions to refer to when confused or overwhelmed
- Use an teacher aide or assistant to help the student in the classroom
- Have the school counselor or school nurse meet with the student to monitor concussion symptoms
- Communicate with the student's physician, parents, coaches and athletic trainers and others regarding how the student is progressing.

In most cases, a concussion will have no permanent consequences and the student will recover fully. A small number of students can have learning and behavior

difficulties for a longer period of time which may be permanent. If symptoms persist then the student's physician and parents will need to refer the student for further evaluation by a knowledgeable health care professional (e.g., a physician and/or a neuropsychologist trained in concussion management).

Student-athletes who sustain concussions need to be measured, monitored and managed. The "concussion team" should include the coach, athletic trainer, physician, parents, teachers, school nurse, school psychologist and specialists. By treating our student-athletes the same way we treat professional athletes we will provide them the rest and recuperation they require and the time they need to recover from their concussions.