

Concussion Recovery in Students

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In high school sports, the incidence of concussion runs the range from virtually nothing in sports like track and field to about 10% in high contact sports like football (Lincoln et al 2011), so it is not unusual to encounter high school students with concussions. In addition, about half of our students at Apponequet with concussions have gotten them outside of athletics from such things as motor vehicle, bicycle, or skiing accidents. It is essential that we get these students back to school as soon as possible but without overtaxing their brains which are already not functioning correctly. One of the most important things to remember about concussions is they are an “invisible” injury. Tests such as CT scans and MRIs will be normal but there is still something malfunctioning in the brain. One of the best analogies is that a concussion is a “software” injury and not a “hardware” injury; upon exam the brain looks normal, but in reality is not functioning normally.

The student’s course of treatment is determined by the health care provider and several visits will often be necessary. It is very important throughout the course of recovery that the student is honest about symptoms with the health care team, as reinjuring the brain when it is currently injured can have very serious and grim sequelae.

Because the brain is not functioning properly, brain rest is important initially in the course of treatment. Depending on the severity of symptoms a student may start recovery by staying home from school and avoiding such things as texting, video games, TV watching, computer use, or even reading and doing homework. Gradually, as he or she starts feeling better, the student may return to school part-time and then full-time. When the student does return to school he may need extra time to complete homework or tests, postponement or staggering of tests, and a reduced workload if possible. In some cases lights or sounds may trigger symptoms and allowing the student to wear sunglasses or a cap with visor, and allowing the student to eat lunch somewhere other than the cafeteria may be appropriate (McGrath, 2010). During this time it is not suitable for the student to participate in any gym classes or sports team activities. After the student can return fully to school and is completely without symptoms, then it is time to think about returning to athletics.

Once the student is medically cleared to return to athletic activity, (when completely symptom free while doing normal cognitive activities) he or she will go back gradually and systematically with a plan called a graduated return to play. This will normally take place in 5-6 steps within a minimum of 5-6 days. Each day is increasingly more difficult and stresses the system slightly more to see if the activity induces concussion symptoms. If the student has symptoms then the health care provider needs to be consulted again for further advice on how to proceed. Most often students at this stage complete the graduated return to play without a problem and have a complete recovery.

References:

- McGrath, Neal. (2010). Supporting the student-athlete’s return to the classroom after a sport-related concussion. *Journal of Athletic Training* 2010;45(5):492-498.
- Lincoln et al. (2011). Trends in concussion incidence in high school sports: A prospective 11 year study. *AJSM PreView* 20(10).