

Concussions, ImPACT Testing, and Return to Play

There is a recently enacted concussion law in Massachusetts that all high schools must follow which requires that any student **suspected** of having a concussion must be removed from play and cannot return to play until he or she has been seen by a medical provider. Once seen, the student is either diagnosed with no concussion or is diagnosed with a concussion and then a plan is made for return to academics and then later return to athletics or gym class. Students will not be cleared to return to athletics until they are completely symptom free for a period of time, often 2 to 7 days, depending on the provider's preference. After the student is cleared to return he or she must complete a graduated return to play program (without showing any symptoms) that takes at least 5 days. Once that is completed the provider can give final clearance and the student is set to go back to competition.

One of the many tools that can be used by a health care provider to evaluate students for return to academics and athletics is computerized neurocognitive testing. The important thing about this type of testing is that while there is a subjective symptom report part of the test, it is mostly an objective tool for evaluating how well the student's brain is recovering from the injury. The ImPACT test is one such test that is the most commonly used. We are happy that at ARHS we will be conducting baseline ImPACT testing for all of our athletes. If a concussion later occurs the health care provider (if qualified) will have a baseline for comparison for any future ImPACT testing.

The new concussion law was passed to provide protection for all students' brains as the medical community has accumulated a lot of new information about the possible severe side effects of playing with undiagnosed or untreated concussions. Because adolescents' brains are still developing they actually recover from brain injuries more slowly than adults' brains. We need to be extra careful with management of concussions in this age group.

There is a lot of misinformation about concussions that needs to be dispelled. Here are a few common myths and the truths that actually go with them:

- *My child is fine...he just got his bell rung.* This actually refers to getting hit in the head hard enough to hear ringing in your ears. There is no more "just getting his bell rung"; this student has concussion symptoms and needs to be evaluated.
- *She doesn't have a concussion her CT scan and skull x-ray was normal.* Thankfully this is normal. That does not mean there is no concussion but it means there is not a more serious skull injury like a skull fracture or a subdural hematoma. A concussion can be most easily thought of as a "software injury" rather than a "hardware injury" and so is not visible on these tests.
- *He cannot have a concussion he did not lose consciousness.* While loss of consciousness after a blow to the head is reason for an immediate ride to the hospital in an ambulance, it is not necessary at all for a brain injury to have occurred. 90% of all diagnosed concussions do not involve loss of consciousness.
- *She does not have a concussion she had her helmet on.* Helmets do a great job of protecting the brain from very serious point-impact injuries (that often caused death) but they really do not do that much to protect from concussion. Concussions result more from the rotational force of the brain shifting inside the skull.

If you have any questions about concussions, return to play, or neurocognitive testing do not hesitate to call Paula Mueller RN, MSN at 508-947-2660 ex. 1157 or David Nasiff, LAT, ATC, CSCS at 508-947-2660 ex. 1143 or Jim Cabucio, Athletic Director at 508-947-2660 ex 1161.