

When is it Safe to Allow a Student-Athlete to return to Play

Marc Arginteanu*

Department of Neurosurgery, Mount Sinai Medical Center, New York, USA

***Corresponding Author:** Marc Arginteanu, Department of Neurosurgery, Mount Sinai Medical Center, New York, USA.

Received: July 02, 2019; **Published:** July 08, 2019

When I served as president of the New Jersey Neurosurgical Society, I met a lot of people from around our great state. One question that I heard from many parents and coaches was, “After a concussion, when is it safe to let a student athlete return to play?”

It is an important question, because hundreds of thousands of high school students in the USA suffer concussions annually. I have given this question careful consideration during my decades of neurosurgical practice. With the recent formation of a new professional football league, a public posting of my professional opinion is timely.

While most concussions are mild, not much more than ‘head bumps’ which resolve without sequelae, some represent serious brain trauma. Especially worrisome are injuries heralded by ‘blacking out’, losing consciousness, for more than one minute or extensive memory loss.

Some athletes exhibit symptoms which persist for more than a month after a concussion. Manifestations of a ‘post-concussive syndrome’ may include: headaches, slowed reaction times, difficulty concentrating and irritability. Athletes often minimize or conceal symptoms because they are extremely motivated to return to play. This is a bad idea.

Players who return to competition before the symptoms of a first concussion have completely resolved are at risk for ‘second impact syndrome’. In this rare but serious syndrome a sensitized brain, subjected to a repeat trauma, becomes so swollen that the athlete suffers catastrophic brain damage, coma or death. The young developing brain is more prone to this type of injury than the brain of an adult.

Cumulative damage from repeated concussions may accrue insidiously, even after many years have passed. Medical science has not yet determined the magnitude or number of concussions requisite for permanent brain damage. Known as chronic traumatic encephalopathy or CTE, once the symptoms show up, the brain damage may be irreversible. Symptoms may be physical, such as tremors, lack of coordination, speech abnormalities or unsteady gait, or psychological, such as inappropriate, psychotic or explosive behavior

A devastating brain injury in a thirteen year old student athlete named Zackery Lystedt inspired Washington State to pass a law regarding return to play a decade ago. Most other states followed. Concussion safety laws are a good start, but a full buy in from high school and collegiate athletic associations is essential. Parents, teachers and coaches have a duty to take reasonable precautions to protect athletes from injury.

I recommend moving towards a “three strike” paradigm.

Strike One: Any athlete who is believed to have sustained a concussion during a game or practice should not be allowed to return to the playing field the same day. If symptoms resolve within a week to ten days, the athlete may resume competition in a stepwise fashion. The student should begin with a period of light aerobic activity. Provided symptoms don’t return, activity may increase to sport-specific exercises without head impact. The athlete then may advance to full contact practice and finally, to game play. Err on the side of caution: ‘When in doubt, sit the player out’. Neurocognitive tests, which evaluate decision making ability, reaction time, attention and memory may provide guidance for making decisions regarding

return to play. These tests are particularly valuable if a pre-injury baseline is available.

Strike Two: A second concussion warrants the termination of the season.

Strike Three: A third concussion, for most student or even professional athletes, mandates retiring from contact or collision sports.

The recommendation to terminate an athletic career is not made lightly. Forced cessation of athletic activity has a major impact on the student's life, often underestimated by others. When an athlete stops playing and practicing with his or her team, he or she misses out on bonding time and esprit de corps which create and nourish friendship and self-esteem. For elite high school or college athletes with professional aspirations, quitting means abandoning a dream.

On the other hand, mounting evidence indicates the danger of head trauma which appears to rise exponentially with repeated injury.

Let's get together and strike out CTE.

Benefits of Publishing with EScientific Publishers:

- ❖ Swift Peer Review
- ❖ Freely accessible online immediately upon publication
- ❖ Global archiving of articles
- ❖ Authors Retain Copyrights
- ❖ Visibility through different online platforms

Submit your Paper at:

<https://escientificpublishers.com/submission>