

House Education and Labor Committee  
Healthy Families and Communities Subcommittee  
Field Hearing on  
“The Impact of Concussions on High School Athletes: The Local  
Perspective”

Monday, September 13, 2010, 10:00 A.M.

Suffolk County Community College- Ammerman Campus  
Babylon Student Center, Montauk Point Room  
Selden, New York

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Chairwoman McCarthy, Congressman Bishop and other distinguished guests, my name is Craig LoNigro. I am a Certified Athletic Trainer, Physical Education and Health teacher at Comsewogue High School here in Suffolk County, New York. As a father and health care professional, I am passionate about safety in youth sports.

Thank you for allowing me the opportunity to speak on behalf of the National Athletic Trainers' Association (NATA) today about the athletic trainer's role in concussion management.

As you may know, ATs are health care professionals who collaborate with physicians to optimize activity and participation of patients. Athletic training encompasses the prevention, diagnosis, and intervention of emergency, acute and chronic medical conditions leading to impairment, functional limitations and disabilities.

All ATs have at least a bachelor's degree in Athletic Training from an accredited college or university, and 70% of our membership has a master's degree or higher. Certified ATs must pass a national certification exam. In most of the 47 states where they are licensed or otherwise regulated, the national certification is required for licensure. ATs maintain this certification with required continuing medical education. They work under a medical scope of practice and under the direction of physicians and adhere to a national code of ethics.

Although the issue of concussions in sports has received a great deal of attention in the media in recent months, it is not a new problem. Athletic trainers have been caring for concussed athletes and warning of the dangers posed by this unique injury for years.

The NATA represents over 35,000 athletic trainers (ATs). As athletic trainers and health care professionals specializing in team sports, we are the first line of defense in the prevention, diagnosis and emergency treatment of head traumas and other athletic injuries.

NATA has a long history of working with research experts to explore the prevention and proper treatment of head injuries. In July 2009, NATA released a study in the *Journal of Athletic Training* entitled *Head Impacts During High School Football: A Biomechanical Assessment*. The study revealed that high school football players sustain greater head accelerations after impact than do college-level football players, which can lead to concussions and serious cervical spine injuries. Further, the study urged high school coaches to teach proper tackling techniques in order to reduce the risk of head and neck injuries among athletes.

While much focus has been given to players in the National Football League (NFL), it is important to remember that high school athletes represent the single largest segment of football players in the country and account for the majority of sport-related concussions. In a given year, between four and six percent of high school football athletes sustain concussions, corresponding to an estimated 43,200 to 67,200 injuries annually. In fact, there are five times as many catastrophic football injuries among high school athletes as college athletes. Estimates indicate, however, the true incidence of injury is likely much higher. Some research suggests that more than half of high school athletes who suffer concussions do not report their injuries to medical personnel. Even when faced with these disturbing trends and the fact that 7 million students participate in high school

sports in America, the NATA estimates that only 42 percent of public high schools in America have access to an athletic trainer. In fact, NATA estimates that across the country, the ratio of students to athletic trainers is 2,678 to 1.

According to a *New York Times* article (Sports Imperative: Protecting Young Brains, August 24, 2009), “at least four American high school students died last year from football head injuries. Most suffered from what is called second-impact syndrome, a rare but catastrophic dysregulation of brain activity that can occur when a young player sustains another hit before the brain has recovered from an earlier concussion. In nearly all cases, such tragedies can be prevented if the symptoms of concussion are recognized and heeded, giving the injured brain time to fully heal.”

Furthermore, studies also show that fifty percent of second impact syndrome incidents result in death. Other startling statistics include:

- Female high school soccer athletes suffer almost 40% more concussions than males (29,000 annually). *Journal of Athletic Training, July – September 2003*
- Female high school basketball athletes suffer 240% more concussions than males (13,000 annually). *Journal of Athletic Training, July – September 2003*
- 400,000 brain injuries (concussions) occurred in high school athletics during the 2008-09 school year. *Compliance with return to play guidelines following concussion in US high school athletes, 2005-2008*
- Concussion symptoms such as headache and disorientation may disappear in fifteen minutes, but 75% of those tested 36 hours later still had problems with memory and cognition. *Journal of Athletic Training, July – September 2003*
- 15.8% of football players who sustain a concussion severe enough to cause loss of consciousness return to play the same day. *Center for Injury Research and Policy, The Research Institute at Nationwide Children's Hospital, Dr. Dawn Comstock*

### Addressing the Issue Locally

I have been a certified athletic trainer for just over 20 years. I have been fortunate to have had the opportunity to be involved in athletics at every level of competition, including youth league programs like the distinguished Suffolk County Police Athletic League (PAL), as well as high school and middle school programs. On the international level, I served as the Head Athletic Trainer for the USA World Championship Mens' Lacrosse team in 2003. On the professional level, I served as the head athletic trainer for both professional lacrosse and soccer here on Long Island. My college education from Hofstra University culminated in an internship with the New York Jets Football Club medical staff as a student athletic trainer.

As an athletic trainer, it is my obligation to pay attention to every play of every game so that I may be able to see an injury happen and know the severity. I have personally witnessed an athlete sustain a head injury in a big game against the rival team. While the athlete (and the coaches for that matter) wants to return to the field, it is my job to make the assessment about what is best for the health of that player. As an athletic trainer, one of the more difficult responsibilities of my job is to tell an athlete that they cannot play in a game that they have worked so hard to prepare for.

It is my job to educate the athlete and the coaching staff to realize the severity of issues, in hopes of preventing more serious or even fatal repercussions. It is my job to convince the athlete, his/her parents and the coaching staff that if action is not taken quickly, we could be dealing with a much bigger issue than losing a game. Sometimes this process is simple, and other times it is as big of a battle as the game itself.

### NATA's Recommendation on Addressing Head Injuries in Football

The NATA has developed recommendations on addressing head injuries in football. Those recommendations include using the "Graded Symptom Checklist," which is distributed within NATA's position statement "Management of Sport-Related Concussion." This treatment tool can help determine whether a concussion has occurred, the severity of the injury and whether a player is fit to return to play. Athletic trainers or physicians who suspect that an athlete has suffered a concussion can use the checklist to evaluate a player both at rest and during physical exertion.

In response to the national youth sports safety crisis in America, the NATA has spearheaded the *Youth Sports Safety Alliance*, an initiative to raise awareness, advance legislation, and improve medical care for young athletes. This call to action includes:

- Ensuring that youth athletes have access to health care professionals who are qualified to make assessments and return to play decisions;
- Ensuring pre-participation physicals before play begins; and
- Recognizing the difference in pain and injury and working toward the elimination of the culture of "playing through pain" without assessment.

### NATA's Recommendations for Concussion Legislation

In consultation with the NATA Secondary School Athletic Trainers' Committee, the NATA Government Affairs Committee and the NATA Federal Legislative Council, NATA has developed a set of principles surrounding the issue of concussion management and possible future legislation. NATA's principles include the following:

- **Increasing student athletes' access to a certified athletic trainer is the first step in helping to prevent concussions and manage concussions once they occur.** Legislation should incentivize schools and school districts to increase the accessibility of an athletic trainer to their student athletes.
- **Conducting baseline testing of student athletes prior to engagement in contact sports provides the greatest opportunity to ensure accurate assessment of a player's condition after sustaining a concussion.** Funding should be made available to schools and school districts to conduct appropriate baseline testing for symptoms, cognitive function and balance.
- **Educating parents, coaches, teachers and other stakeholders about the signs and symptoms of concussions is critically important.** Programs such as the Centers for Disease Control and Prevention's (CDC) "Head's Up"

program are important tools. At the same time, concussion education and awareness programs should not provide a false sense of comfort that non-medical professionals are able to diagnose and treat concussions. Rather, a focus should be to educate stakeholders about making a proper referral if the signs and symptoms of a concussion are present in a student.

- **State Task Forces** that may be established to develop and implement state plans for concussion management **should include representatives of the state’s athletic training association, athletic association, medical society, and Department of Education.**
- **Athletic trainers serve as the lynchpin medical professional who seeks input from all members of the concussion management team regarding the return to play decision.** Athletic trainers’ standard practice is to ensure involvement of a team comprised of the student athlete, family/parent, treating physician and school personnel such as the coach, school nurse and teachers in their approach to concussion management with respect to a decision about return to play. The athletic trainer is responsible for coordinating the school’s emergency action plan, concussion testing program, medical coverage and more. In the absence of an athletic trainer, these responsibilities often fall to unqualified, non-medical personnel.
- Although the best case scenario is for a school to have access to an athletic trainer on faculty or staff, in the absence of a licensed or certified athletic trainer, the treating physician should make return to play decisions in consultation with school personnel, the student athlete and his/her family.

#### Other State and Federal Legislative Initiatives Related to Head Injury

Currently, the New York state legislature is considering several bills of importance. First is SB 6297, which would provide training and institute regulations for management of head injuries. We are very appreciative that the legislature has collaborated with the New York State Athletic Training Association on the bill language.

Recently, AB 10890 was introduced. This bill would require the Commissioner of Education to establish minimum standards for training coaches and set the qualifications of health care providers for making return to play decisions.

Finally, head injury awareness legislation, SB 8420 and AB 11605, has been introduced.

The NATA has endorsed Representative Bill Pascrell’s Concussion Treatment and Care Tools (ConTACT) Act (H.R. 1347) of which Chairwoman McCarthy is a co-sponsor. NATA applauds the creation of national guidelines to address the prevention, identification, treatment and management of concussions in school-aged children, including return to play decisions included in the bill.

In addition to these items, the NATA strongly supports the recognition of athletic trainers as health care providers under the Medicare and Medicaid programs. This would encourage private insurance companies to reimburse athletic trainers for physical medicine and rehabilitation services they provide. This legislative action would assist in making more athletic trainers available in high schools and local medical facilities to treat those individuals suffering from head trauma or other sports related injuries where they occur.

### Conclusion

I greatly appreciate the opportunity to participate in this hearing and offer the National Athletic Trainers' Association as a resource to you and other members of the Subcommittee as you work to address this important issue facing the youth in our nation. Thank you.