

Date of Hearing: May 3, 2016

ASSEMBLY COMMITTEE ON ARTS, ENTERTAINMENT, SPORTS, TOURISM, AND
INTERNET MEDIA

Kansen Chu, Chair

AB 2007 (McCarty) – As Amended April 26, 2016

SUBJECT: Youth athletics: youth sports organizations: concussions or other head injuries.

SUMMARY: Would require amateur youth sports organizations to adopt concussion treatment and recognition protocols similar to those in existing law for student athletes, as specified.

Would also require youth sports organizations to develop return-to-play protocols, and provide yearly concussion and head injury information sheets and education, as specified. Specifically, **this bill:**

- 1) Declares that a youth sports organization that elects to offer an athletic program shall comply with all the following:
 - a) An athlete who is suspected of sustaining a concussion or other head injury in an athletic activity shall be immediately removed from the athletic activity for the remainder of the day, and shall not be permitted to return to the athletic activity until he or she is evaluated by a licensed health care provider.
 - b) The athlete shall not be permitted to return to the athletic activity until he or she receives written clearance to return to the athletic activity from a licensed health care provider.
 - c) If the licensed health care provider determines that the athlete sustained a concussion or other head injury, the athlete shall also complete a graduated return-to-play protocol of no less than seven days in duration under the supervision of a licensed health care provider.
- 2) Provides that if an athlete who is 17 years of age or younger has been removed from athletic activity due to a suspected concussion, the youth sports organization shall notify a parent or guardian of that athlete of the time and date of the injury, the symptoms observed, and any treatment provided for the injury.
- 3) Requires, on a yearly basis, the youth sports organization shall give a concussion and head injury information sheet to each athlete. The information sheet shall be signed and returned by the athlete and, if the athlete is 17 years of age or younger, shall also be signed by the athlete's parent or guardian, before the athlete initiates practice or competition.
- 4) Further requires, on a yearly basis, that the youth sports organization shall give concussion and head injury education or educational materials or both to each coach and administrator of the youth sports organization.
- 5) States that the youth sports organization shall identify both of the following:
 - a) An individual within the youth sports organization who is responsible for ensuring compliance by the organization with the requirements for providing concussion and head injury education contained in paragraph (4).

- b) Details of the return-to-play protocol required pursuant to paragraph (1).
- 6) Contains the following definitions:
- a) “Concussion and head injury education and educational materials” and a “concussion and head injury education information sheet” shall at a minimum include information relating to all of the following:
 - b) Head injuries and their potential consequences.
 - c) The signs and symptoms of concussion.
 - d) Best practices for removal of an athlete from an athletic activity after a suspected concussion.
 - e) Steps for returning an athlete to school and athletic activity after a concussion or head injury.
 - 7) “Licensed health care provider” means a licensed health care provider who is trained in the evaluation and management of concussions and is acting within the scope of his or her practice.
 - 8) “Youth sports organization” means an organization, which may include, but is not necessarily limited to, a business or nonprofit entity or a local governmental agency, that sponsors or conducts amateur athletic competitions, camps, or clubs in which persons 17 years of age or younger participate.
 - 9) Declares that this section shall not be construed to prohibit a youth sports organization, or any other appropriate entity, from adopting and enforcing rules intended to provide a higher standard of safety for athletes than the standard established under this section.

EXISTING LAW:

- 1) Limits full-contact practices, as defined, for high school and middle school football and urges the California Interscholastic Federation (CIF) adoption of rules to implement such guidelines. (Education Code 35179.5)
- 2) Requires an athlete suspected of sustaining a concussion or head injury during athletic activity to be removed from that activity and not be permitted to return until evaluated and cleared by a licensed health care provider; urges the CIF to develop rules and protocols to implement this; requires athletes and parents to receive, sign and return a head injury information sheet annually before practice or competition; and excludes athletic activities during the regular school day or as part of a physical education course. (Education Code 49475)
- 3) Requires a high school sports coach to complete education programs developed by his or her school district and the CIF and meeting specific guidelines. (Education Code 49032)

FISCAL EFFECT: None. The Legislative Counsel has keyed this measure as non-fiscal.

COMMENTS:

1) *Author's statement and supporters: Existing school-based protections for children in sports do not reach amateur youth sports organizations.* The author adds that, "With this legislation I intend to mitigate the growing problem of injured athletes by creating awareness of sports-related head injuries and having a proper protocol for concussion detections, treatment, and post-concussion management for youth sports leagues." As need for such protection he points to a 2014 study, wherein the Boston University School of Medicine found former NFL players' who began playing football before age 12 "demonstrate significantly greater impairment" than those who started playing later in life. The bill's sponsors, the California Athletic Trainers' Association state in their support, "This bill will help close many loopholes in concussion management at the youth sports level, and help protect our most vulnerable athletes by providing similar safeguards that are afforded to high school and college athletes." The California State PTA draw attention in their letter of support to the provisions of the bill which "assure that parents are provided annually with a concussion and head injury information sheet and that young athletes are removed immediately from an athletic activity if they are suspected of sustaining a concussion or other head injury."

2) *Background:*

a) *Concussions and Chronic Traumatic Encephalopathy (CTE) making recent news.* The dangers of concussions and head injuries in sport have been a growing concern, with frequent news reports of athletes, primarily football players, sustaining traumatic and lasting injuries. On March 1, 2016, this committee participated in a screening of the movie "Concussion" featuring Dr. Bennett Omalu who discussed his ground breaking research into CTE which was the focus of the film, in conjunction with a discussion of the topic of sports safety and concussion prevention by the California Athletic Trainers' Association (CATA). In addition to a major motion picture on the issue, other dramatic news reports in March alone include:

A Purdue University study in 2015 indicated lasting brain changes among high school football players, even without concussions, and that changes were not completely healed at the end of an off-season. The study used brain scans and changes in brain chemistry to track players more extensively than neurocognitive testing.

i) A representative of the National Football League testified that there is a connection between football and chronic traumatic encephalopathy.

ii) Women's soccer standout Brandi Chastain announced she would donate her brain to science for research into head injuries.

iii) Ivy League schools announced they would eliminate full-contact practices for football.

The growing awareness of concussion dangers has led California to enact a series of bills to protect students by limiting full-contact practices; requiring education and information

for coaches, pupils and their parents; and protocols for removing students from activity after injury and for returning them to play (See comment 5 below).

- b) *Concussions have greater adverse effect on younger athletes:* As this committee learned in hearing AB 2182 (Mullin), at our last hearing, research shows that the human brain does not fully develop until a person's mid-20s. Therefore, young athletes experiencing head injuries are at greater risk of long-term brain damage if injured during the critical stages of brain development. From 2002 to 2012 the number of reported sports-related concussions among student athletes doubled. This increase in reported concussions is attributed to various factors, including greater awareness and recognition of traumatic brain injuries. However, research shows that it is likely that self-reported concussion symptoms are under diagnosed, which may lead athletes to return to play prematurely.

According to recent research, "Although most (80-90%) concussions resolve within 7-10 days, the recovery process can be longer and more complicated in children and adolescents. Furthermore, younger athletes have a higher risk of severe symptoms and cognitive decline...Due to the more complex recovery process in young athletes, they need protection when they are most vulnerable." (Mukland and Serra, *Concussions and Brain Injuries in Youth Sports*, December 2015, Rhode Island Medical Journal).

In addition, studies show that the risk of a second concussion if an athlete returns to play too soon is greater for youth, both in likelihood and severity. "Athletes who return to play before their concussions have fully resolved may place themselves at an increased risk for prolonged recovery. Although very rare, the potential for catastrophic head injuries, including what is sometimes called 'second impact syndrome' is the primary concern. While catastrophic head injury is uncommon, it may occur more frequently in younger athletes between the ages of 12 to 18 years." (Graham, Rivara, et al, *Sports-Related Concussions in Youth: Improving the science, changing the culture*, 2014, National Academy of Sciences).

- 3) *What is CTE and how is it related to concussions?* According to information on the website of the Bennett Omalu Foundation, "Chronic Traumatic Encephalopathy (CTE) is a progressive degenerative disease that afflicts the brain of people who have suffered repeated concussions and traumatic brain injuries (TBI). Though Bennet Omalu first discovered CTE in the brain of NFL Hall of Famer Mike Webster in 2002, it was previously thought to have existed in boxers, and was referred to as dementia pugilistica. It has since been found in the brains of more than ninety NFL players, and other athletes, including wrestlers and hockey players. It has also been identified in the brains of deceased military veterans, domestic abuse victims, and others.

"The brain of an individual who suffers from CTE gradually deteriorates and begins to lose mass. Brain trauma can also cause the accumulation of a type of protein called tau, which significantly interferes with brain function. As CTE progresses, it can cause memory loss, impulsive and erratic behavior, difficulty with balance, impaired judgment, and behavioral disturbances including aggression, depression, and increased suicidality. Ultimately, CTE progresses to the onset of dementia. A similar accumulation of tau protein is also seen in the brains of Alzheimer's patients. CTE symptoms can manifest months or years after brain trauma, and a definitive diagnosis of CTE can only be made after death by analyzing brain tissue at autopsy.

"The CDC estimates that up to 3.8 million concussions occur each year, with up to ten percent of high school athletes suffering from post-concussion syndrome. Trauma is also often repeated: an athlete who sustains a concussion is four to six times more likely to sustain a second concussion. It's not well understood how these incidents of trauma progress to CTE and currently there is no cure."

- 4) *Return-to-Play Protocol*: This bill would prohibit an athlete who is suspected of sustaining a concussion from returning to the athletic activity in which he or she suffered the concussion until the athlete has completed a return-to-play protocol of not less than 7 days in duration. This bill makes no reference to any particular protocol; however the United States' Center for Disease Control (CDC) describes a Return-To-Play Protocol, (RTP) which consists of 5 "steps" following a complete physical and the absence of concussion symptoms for a period of 24 hours. The steps progress from light aerobic exercise for 5-10 minutes, to moderate exercise, to non-contact but more intense exercise, a reintegration into full practice, and finally a return to play. The CDC emphasizes the need for each of these steps to be monitored for a return of concussion symptoms. In addition to the CDC protocol, the California Interscholastic Federation has similar guidelines for RTP which are in place for high school athletics.
- 5) *Prior and related legislation*:
 - a) AB 2127 (Mullin), of 2016, would create a baseline neurocognitive testing pilot program for concussion and head injury, as defined, applying to students playing interscholastic sports, as provided, and requires specified schools to collect, maintain and report on traumatic brain injuries sustained by any pupil during athletic competition. That measure passed out of this committee on a 7-0 vote and is currently pending before the Assembly Appropriations Committee.
 - b) AB 2127 (Cooley), Chapter 165, Statutes of 2014, among other things, limits full-contact practices for high school and middle school football teams for concussion and head injury prevention, and requires that a return-to-play protocol after concussion or head injury be no less than seven days in duration.
 - c) AB 588 (Fox), Chapter 423, Statutes of 2013, applies existing law relating to students who sustain, or are suspecting of sustaining, a concussion during a school-sponsored athletic activity to charter schools and private schools.
 - d) AB 1451 (Hayashi), Chapter 173, Statutes of 2012, includes a basic understanding of the signs and symptoms of concussions and the appropriate response to concussions within the HSCET, administered by school districts.
 - e) AB 1449 (Hayashi), of 2012, would have required the SPI to develop and make available a sample concussion and head injury information sheet for use by school districts. That measure was held in the Assembly Education Committee.
 - f) AB 25 (Hayashi), Chapter 465, Statutes of 2011, requires a school district that elects to offer athletic programs to immediately remove an athlete who is suspected of sustaining a concussion or head injury during that activity; prohibits the return of the athlete to that

activity until he or she is evaluated by, and receives written clearance from, a licensed health care provider; requires, on a yearly basis, a concussion and head injury information sheet to be signed and returned by the athlete and the athlete's parent or guardian before the athlete's initiating practice or competition.

- g) AB 1646 (Hayashi) of 2010, would have required training for coaches to be able to identify symptoms of head and neck injury. That measure was held in the Assembly Appropriations Committee suspense file.
- h) AB 1893 (Hayashi), of 2010, would have required all high school spirit activities coaches to have valid certification in CPR and first aid, including an understanding of signs, symptoms, and appropriate emergency action steps regarding potentially catastrophic injury, including but not limited to, head and neck injury and concussion. Pupils participating in this activity who experience or show signs of trauma or other injury must obtain a release from the treating provider before resuming these activities. That measure was held in the Assembly Education Committee
- i) AB 533 (Hayashi), of 2009, would have required training for coaches to be able to identify symptoms of head and neck injury. That measure was held in the Assembly Appropriations Committee suspense file.

REGISTERED SUPPORT / OPPOSITION:

Support

California Athletic Trainers Association (Sponsor)
California School Nurses Association
California State Parent Teacher Association (PTA)
The Child Abuse Prevention Center

Opposition

There is no opposition on file.

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