



POSITION STATEMENT

Sports Concussion

BACKGROUND

The American Academy of Neurology (AAN)—an association of more than 25,000 neurologists and neuroscience professionals dedicated to providing the best possible care for patients with neurological disorders—advocates for policy measures that promote high quality, safe care of individuals participating in contact sports. Neurologists specialize in treating disorders of the brain and nervous system. Some AAN members have particular interest and experience caring for athletes and are qualified to develop and disseminate guidelines for managing athletes with sports-related concussion.

DESCRIPTION OF ISSUE

Concussion, a form of mild traumatic brain injury (TBI), is a common consequence of trauma to the head in contact sports. An estimated 1.6 to 3.8 million sports-related concussions occur in the United States each year¹. While the majority of concussions are self-limited injuries, catastrophic results can occur and the long-term effects of multiple concussions are unknown. A history of prior concussion significantly increases risk for recurrent concussions.

The effect of concussion on developing brains is of particular concern. Children with concussion, particularly multiple concussions, are at high risk for developing headaches and suffering from impaired memory, cognitive function, attention, or other behavioral changes. Unfortunately, during the last decade, emergency department visits for sports- and recreation-related TBIs, including concussions, among children and adolescents increased by 60 percent².

The AAN strongly encourages state and local policymakers to implement legislation and regulations to minimize the occurrence of sports-related concussion.

RATIONALE

Model Legislation

The AAN supports model legislation passed in the state of Washington in 2009, known as the “Zachary Lystedt Law,” and recommends policymakers include the following elements in all legislation and regulations pertaining to concussion management:

- Education efforts should be maximized to improve awareness of concussion and possible adverse consequences of concussion by athletes, parents, and coaches. The AAN supports strong educational resources such as the Centers for Disease Control and Prevention’s *Heads Up: Concussion in Youth Sports* online training course for coaches and



parents³.

- Any athlete who is suspected to have suffered a concussion, regardless of severity, is to be removed immediately from participation in a game or practice.
- A licensed health care professional, such as a neurologist, whose scope of practice includes being properly trained in the evaluation and management of concussion, must clear the youth athlete before he or she can return to play. This includes sports recognized by high school athletic associations as well as youth and recreational leagues run by other entities.

Further Recommendations

- High schools should consider having parents and athletes sign a concussion and head injury information sheet each year before an athlete can practice and compete in his or her sport acknowledging the risks of concussion.
- Lawmakers and state health departments should implement sports concussion registries. Registries help physicians and researchers learn more about the impact of concussions, including how it affects student athlete performance in the classroom.
- High schools and athletic associations should implement a tool such as the Standardized Assessment of Concussion (SAC), which is designed for use by non-physicians on the sidelines of an athletic event. According to the AAN's guideline on the evaluation and management and concussion in sports, it is likely that the SAC will accurately identify the presence of concussion in the early post-injury period⁴.
- Licensed health care professionals who are on a volunteer basis and not receiving pay for conducting a concussion evaluation on the field of play and who in good faith authorize a student athlete to return to play from the sidelines should not be held liable for civil damages resulting from an act or omission in the evaluation rendering, except for acts that constitute gross negligence or willful misconduct.

CONCLUSION

Children are more likely to sustain concussions and require longer time to recover from them. State and local policymakers should implement legislation and regulations to minimize the occurrence of sports-related concussion.



POSITION STATEMENT HISTORY

Originally drafted in October 2010 (AAN Policy 2010-36) and updated in March 2013. Approved by the AAN's Government Relations Committee March 2013. Approved by the AAN Board of Directors March 2013. (AAN Policy 2013-8).

References/Resources

¹ Langlois JA, Rutland-Brown W, Wald M. The epidemiology and impact of traumatic brain injury: a brief overview. *Journal of Head Trauma Rehabilitation*. 2006;21(5):375-8.

² 1. Gilchrist J, Thomas KE, Xu L, McGuire LC, Coronado VG. Nonfatal sports and recreation related traumatic brain injuries among children and adolescents treated in emergency departments in the United States, 2001-2009. *MMWR* 2011; 60(39):1337-1342.

³ "Heads Up: Concussion in Youth Sports," Centers for Disease Control and Prevention, accessed March 7, 2013, <http://www.cdc.gov/concussion/HeadsUp/youth.html>.

⁴ Giza CC, Kutcher JS, Ashwal S, et al. Evidence-based guideline update: Evaluation and management of concussion in sports. Report of the Guideline Development Subcommittee of the American Academy of Neurology. *Neurology* Epub 2013 March 18.