

## **Joint Section on Neurotrauma and Critical Care Position Statement on Traumatic Brain Injury in Sports**

**(Statement Approved by the AANS Board of Directors and CNS Executive Committee on 4/8/11)**

Sports and recreational activities contribute significantly to personal health, well-being, and satisfaction throughout all stages of life. However, inherent to many of these activities is risk to the individual participant. Traumatic brain injuries (TBI), including concussions, may occur in a variety of sports and recreational settings, and participants should be educated as much as possible about the risks, safety measures, and protective equipment that are available to them. Equally important is understanding the potential long-term effects of both isolated and repeated TBI.

There are many available guidelines for return to play after TBI in sports; however, such guidelines are not routinely employed across the broad spectrum of athletic endeavor, especially in more junior or amateur settings and in certain sports. For sporting activities organized through educational and municipal institutions, as well as in professional settings, guidelines should be readily available and utilized routinely by coaches, trainers, athletes, and parents of minor athletes.

Public education regarding the import of these injuries should be advocated by government, professional organizations, educational institutions, and professional athletic associations. Widespread recognition of signs and symptoms of concussion and other forms of TBI is a primary goal of education programs. Through such initiatives, participants, coaches, and trainers involved in individual, informal, or organized sporting activities will be readily familiar with TBI signs and symptoms, and know when medical attention or abstention from play is needed.

Research into the long-term impact of recurrent TBIs and concussions is necessary to understand the pathophysiological underpinnings, the long-term cognitive and behavioral consequences, and individual predispositions for problems based upon structural or genetic factors. Ongoing funding of such research is required to identify improved mechanisms of prevention and treatment.

Legislative efforts aimed at enforcing utilization of guidelines in organized sporting activities, educating the public, and funding research and education programs should be supported. Increased prevalence of such programs will significantly reduce the individual, social, and economic burden of sports-related TBI, which should be a major public health priority.

Neurosurgeons have a unique and authoritative perspective on the diagnosis and treatment of neurological injury, but recognize that qualified medical professionals who treat non-surgical injuries may practice in a variety of subspecialties of medicine. Neurosurgeons have been leaders in the field of TBI, and have served as team physicians at all levels of athletics. All neurosurgeons are encouraged to take the lead in their communities regarding this important issue, through their participation in prevention programs, by their support of educational and legislative endeavors, and in their willingness to treat patients with sports-related TBI.