Concussion Studies and Articles


Discusses the need for a measure of severity of concussion apart from duration of posttraumatic amnesia. The paced auditory serial-addition test, a measure of rate of information processing, is presented as a convenient test for estimating individual performance during recovery. Procedures for administration and control data are given and the program used for managing the rehabilitation of 320 concussion patients described.


Twenty young adults were studied after a second concussion. The rate at which they were able to process information was reduced more than in controls who had been concussed only once, and they took longer to recover than the controls. The effects of concussion seem to be cumulative, and this has important implications for sports where concussion injury is common.

3.) http://jama.ama-assn.org/content/282/10/964.short

Despite the high prevalence and potentially serious outcomes associated with concussions in athletes, there is little systematic research examining risk factors and short-long-term outcomes.

4.) http://jnnp.bmj.com/content/53/4/293.abstract

Recent studies have concluded that most individuals who sustain minor head injury are free of persistent neuropsychological dysfunction. Nevertheless, a subgroup of patients experience continuing post-concussive difficulties and neuropsychological deficits. This study examined 53 symptomatic minor head injury patients referred for neuropsychological evaluation between one and 22 months after injury. These individuals performed significantly poorer than uninjured controls on four of eight neuropsychological tests. Patients who lost consciousness during injury obtained test scores similar to persons who experienced disorientation or confusion but no loss of consciousness. The results indicate that minor head injury patients who report post-concussive symptoms possess measurable neuropsychological deficits and the severity of these deficits is independent of neurological status immediately following injury.
Concussion (defined as a traumatically induced alteration in mental status, not necessarily with loss of consciousness) is a common form of sports-related injury too often dismissed as trivial by physicians, athletic trainers, coaches, sports reporters, and athletes themselves. While head injuries can occur in virtually any form of athletic activity, they occur most frequently in contact sports, such as football, boxing, and martial arts competition, or from high-velocity collisions or falls in basketball, soccer, and ice hockey. The pathophysiology of concussion is less well understood than that of severe head injury, and it has received less attention as a result. We describe a high school football player who died of diffuse brain swelling after repeated concussions without loss of consciousness. Guidelines have been developed to reduce the risk of such serious catastrophic outcomes after concussion in sports.

*** AT THE BOTTOM OF THIS LINK THERE IS A SECTION TITLED RELATED ARTICLES. ALL OF THESE ARTICLES TOUCH ON CONCUSSION IN HIGH SCHOOL AND PROFESSIONAL SPORTS – there is a great deal of information in those articles.

Attention to sport-related concussions has increased with the recent attention the subject has received. Recent studies show that neurocognitive testing and symptom clusters may predict protracted recovery in concussed athletes. On-field signs and symptoms have not been examined empirically as possible predictors of protracted recovery.

Results A total of 178 concussions occurred during the studies, with 11 players sustaining two concussions. Incidence rate ratios were calculated using Poisson regression, adjusted for exposure hours, cluster by team and potential covariates. Dizziness was not a significant predictor of concussion. Individuals reporting a headache or neck pain at the start of the season were 1.48 (95% CI 1.02 to 2.14) and 1.69 (95% CI 1.16 to 2.44) times more likely to suffer a concussion during the season than those not reporting these symptoms. Individuals reporting any two of dizziness, headache and neck pain were 1.99 (95% CI 1.20 to 3.32) times more likely to sustain a concussion.

**Objective:** A small minority of individuals experience long-term or permanent post-concussion symptoms (PCS) after a mild head injury (MHI). There has been no systematic, quantitative research examining a wide range of variables in a representative sample of such patients (i.e. with PCS for more than 18 months). This study explores a broad spectrum of demographic, cognitive, emotional and psychosocial factors (known to be important in the development of early PCS) in a representative sample of patients with permanent PCS.


This article reviews current issues in the following areas of pediatric sports-related concussion: incidence of concussion, potential long-term effects, return to play, and the emergence of legislation regarding concussion education and management programs. Incidence of concussion is presented in context of emergency room visits, as well as under-reporting of concussions. The literature on history of concussion is reviewed, for high school, collegiate, and professional athletes, with respect to potential long-term effects of cerebral concussion. Specific discussions of effects include: decreased cognition and increased symptom reporting following multiple concussions, and recent diagnoses of chronic traumatic encephalopathy in non-professional and youth athletes. Recent legislative and advocacy efforts are reviewed, including mandated programs in specific states.

11.) http://bjsportmed.com/content/45/2/132.abstract

**Background** The growing concern over concussion in sports has led to the publication of five major summary and agreement, position and consensus statements since 2000. The dissemination of information from these statements is largely unknown and difficult to quantify, but their impact on the research community can be quantified by analysing the number of citations to these key publications. The purpose of this review is to report the number and pattern of citations to the key published statements on sports concussion.
12.) http://ecmaj.ca/content/183/8/905.short

**Background** In 1997, the National Hockey League (NHL) and NHL Players’ Association (NHLPA) launched a concussion program to improve the understanding of this injury. We explored initial post concussion signs, symptoms, physical examination findings and time loss (i.e., time between the injury and medical clearance by the physician to return to competitive play), experienced by male professional ice-hockey players, and assessed the utility of initial postconcussion clinical manifestations in predicting time loss among hockey players.

13.) http://www.msscentershop.info/content/45/4/319.1.abstract

**Background** The diagnosis and management of concussion in sport rely heavily on self-report of symptoms by the athlete. However, many symptoms commonly reported after a concussion (headache, nausea, fatigue, etc.) may be influenced by other factors. Fatigue is a frequent complaint, but may actually be a function of level of physical fitness.

**Some general articles about Concussion:**


http://www.sportsnet.ca/football/cfl/2011/05/03/concussion_blitz/

http://www.thinkfirst.ca/programs/concussion_resources.aspx

http://watch.tsn.ca/featured/clip480600#clip480505
- Thoughts and opinions on the Horton Hit in the NHL playoffs- June 7th 2011


http://www.publicservice.co.uk/news_story.asp?id=16969


http://www.newsworks.org/index.php/local/item/23440