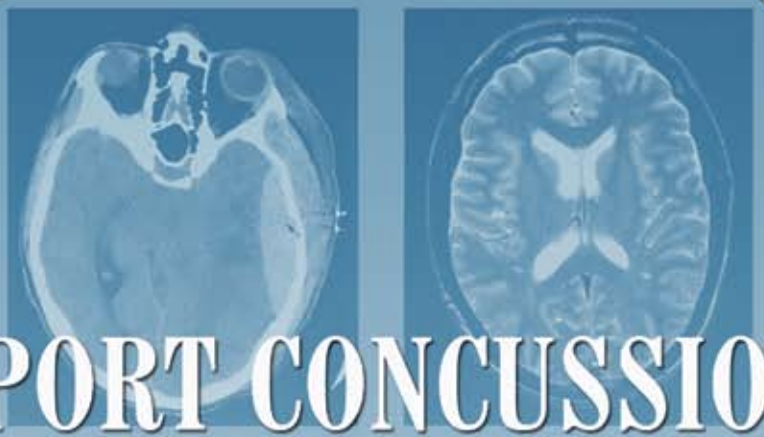
ACS leadership in the field of SPORT CONCUSSION



by Karen M. Johnston, MD, PhD, FACS, FRCSC, Montreal, QC

The last few years have provided an explosion of data and interest in the sport concussion field. In 2001, the *Journal of the American College of Surgeons* was the first to publish a comprehensive approach to this injury, describing a method of evaluation that encompassed everything from clinical history and evaluation; research methods, including new imaging and functional magnetic resonance imaging (MRI) technologies; and concussion rehabilitation and prevention.[1] Although sport concussion is not a *surgical* problem per se, surgeons have often been involved in the medical management of elite and professional teams, are often on the sidelines as parents or coaches for amateur players, and indeed may be or may have been talented athletes themselves. Traditionally surgeons have shown leadership in management of head injury and certainly trauma surgeons and scientists have an interest in this area—and athletes are an excellent study population for particular injuries.

Recent advances have solidified this involvement with the 2nd International Concussion in Sport meeting in Prague in November 2004, followed by simultaneous publication in four journals of the conclusions and recommendations from that meeting.[2-5] Moreover, compared with the first meeting, which was held in Vienna, Austria, in 2001, representation from surgeons in general, and Fellows of the American College of Surgeons in particular, had grown—for example, Edward Laws, MD, FACS, then-President of the ACS, gave a keynote presentation, and Graham Teasdale, MBBS, FACS(Hon), honored the group with his special perspective on head injury.[6-8] Participants included representatives from the neurosciences, sport medicine professionals, coaches, athletic therapists and physiotherapists, sport psychologists, neuropsychologists, and equipment manufacturers. Such unprecedented interaction among diverse groups led the way for a consensus document revolutionizing the management of concussion in sport.

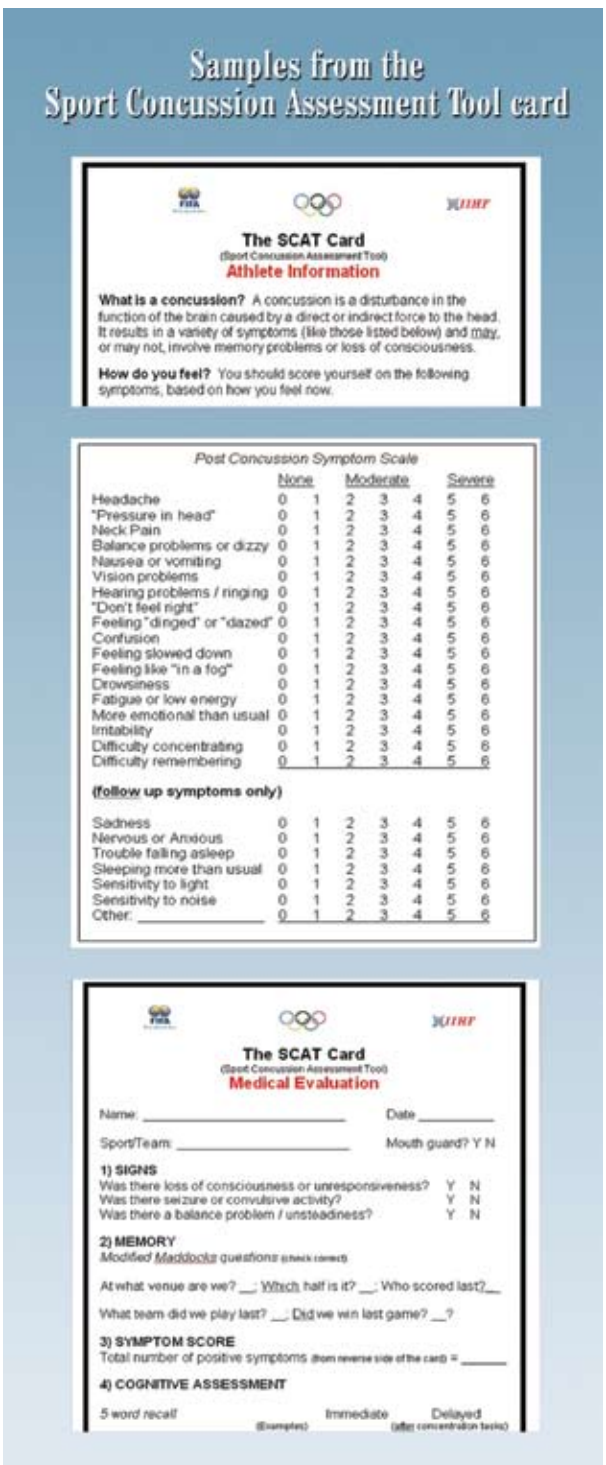
In addition to the important areas prioritized from the first meeting, including sideline evaluation and imaging and return to play issues, new strides were made in development of clinical history, preseason medical concussion stations, concussion rehabilitation[9] and sport psychology in concussion,[10] and new research techniques, including functional MRI.[11] The concept of simple versus complex concussion was elucidated and the important issues of pediatric concussion and cognitive exertion explored. In addition to the document, the new sideline evaluation card for the Sport Concussion Assessment Tool was developed; both are downloadable and free of charge for widespread use at *www.cjsportmed.com* or *www.bjsportmed.com*. Also noteworthy, the mandate to educate was identified as a

high priority, setting a standard of care not seen before.

All these developments were accomplished with the support and endorsement of the world's largest sporting bodies, namely, the International Ice Hockey Federation, Federation Internationale de Football, and the International Olympic Committee.

As part of the education initiative, the ACS once again contributes to setting the bar high. Long a part of the neurosurgical world, Think First, a not-for-profit, injury-prevention organization, has now taken on the task of concussion education. Think First Canada, under the leadership of Charles Tator, MD, PhD, FACS, FRCSC, has recently launched the Concussion Road Show, a public education program that aims to educate players, coaches, primary care physicians, therapists, and the public about the main issues related to concussion. This event is sponsored by Manulife and travels to various venues on weekends. Event participants provide presentations and written materials and lead a question-and-answer interaction with the audience. In addition, the Think First Web site (*www.thinkfirst.ca*) now has a concussion portal with free, downloadable information packages for coaches, parents, players, physicians, and the public. Growing interest in this program was evidenced by the Committee on Trauma Prevention's meeting at the 2005 Clinical Congress in San Francisco, CA, where M. Margaret Knudson, MD, FACS, committee chair, identified ongoing discussion and updates on the concussion issue as important parts of the annual agenda.

ACS surgeons are in the concussion scrum. And although concussions are not a surgical field, they present an opportunity to advance the traditionally surgical field of head injury. Ω



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