UCLA Pediatric Sports Concussion Program provides multidisciplinary expertise



Concussion in youth sports is a serious public health problem. Of the 1.5 to 4 million concussions occurring each year in the U.S., more than half are suffered by individuals under the age of 21. While increased media exposure has helped raise public awareness of the risks of traumatic brain injury, not all of that information is based on current, research-based evidence. Even the data from well-designed studies is usually based on work with professional or collegiate athletes, who are quite different from children whose brains are still growing and developing.

Most athletes who suffer a concussion — including young athletes — get better within a couple of weeks if allowed time to recover by limiting mental and physical demands while ensuring they are not exposed to repeat head injuries. But some will experience unusual symptoms, delayed recovery or chronic symptoms.

Brain injury and recovery

Factors that affect the outcome of a concussion include the total number of brain injuries to which the patient has been exposed, the frequency of their occurrence and the amount of recovery time allowed. After a concussion, the brain remains vulnerable to further injury, and though young athletes are eager to return to play, it is important to allow adequate time for the brain to recover.

Managing the risk of youth sports

"There is no single test to assess concussion and no one-size-fits-all management plan to treat it," says Christopher Giza, MD, director of the UCLA Steve Tisch BrainSPORT Program and co-lead author of brand new evidence-based sports concussion management guidelines. "To properly manage concussion one requires multiple assessment tools and access to multiple specialties for evaluation and treatment."

While increased media attention on the long-term consequences of concussion among professional athletes may make some parents reluctant to have their children participate in sports, Dr. Giza acknowledges the benefits of youth sports. "With other health problems facing youths, including childhood obesity and diabetes, we don't want to make sports participation sound scary. Most kids can participate in sports even those we deem as contact sports — safely with a few basic precautions suggested in current, evidence-based guidelines," he says. The most common side effects of concussion are headache, nausea, vomiting, dizziness, memory problems, disorientation and sleep problems. Anxiety and depression can occur when symptoms do not resolve quickly enough. Loss of consciousness occurs in less than 10 percent of diagnosed concussions.

When patients do not improve as expected, they should be evaluated for other conditions contributing to their symptoms that may be separately treatable. Migraines, for example, can extend symptoms, but may yield to separate treatment. Patients with prior head injuries may also suffer prolonged recovery. In these cases, more time should be allowed, with a more measured approach to return-to-play and added focus on managing schoolwork to allow cognitive symptoms to improve.

Beginning January 2012, California Assembly Bill 25 required that an athlete suspected of having a concussion or head injury be removed from the activity for the rest of that day, and not return to the activity until cleared by a healthcare provider. Because of the variable severity of concussion, but also due in part to varying familiarity healthcare providers have with evidence-based guidelines, young athletes often return to their teams with different management plans than their teammates, making it difficult to enforce a conservative, evidence-based return-to-play. Research supports a conservative approach with young athletes.

UCLA Sports Concussion Clinic

The UCLA Sports Concussion Clinic is a multidisciplinary traumatic brain injury clinic that offers systematic evaluation and treatment of sports-related and other concussions in young patients. With experts in neurology and neuropsychology, UCLA uses a multi-modal approach to concussion assessment that includes a standardized symptom evaluation and neurological examination along with balance, reaction time and visual tracking tests. Neurocognitive function is also assessed, including attention and memory function.

For patients who have undergone baseline neurological testing at their schools, UCLA offers repeat testing to aid in assessment. Most major assessment tests are available.

Following evaluation by all the relevant specialists, each patient is given a plan of recovery to share with his or her trainers and teachers. While management plans are individualized, all young athletes are treated conservatively; patients should ease back into physical and mental activity at a pace dictated by their recovery.

The UCLA clinic evaluates and treats all cases of head trauma, from routine to very complex. Its advanced expertise is particularly helpful in difficult cases. These can include patients who present with unusual symptoms, those whose symptoms fail to resolve with time, and athletes who have sustained multiple concussions and would like to consult on the risk associated with further brain trauma.

The clinic is part of the UCLA Steve Tisch BrainSPORT Program, which focuses on sports concussion prevention, outreach, research and treatment for athletes of all ages, especially young athletes.

Mattel Children's Hospital UCLA



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