



A CUP OF HEALTH WITH CDC Heads Up!

Nonfatal sports- and recreation-related traumatic brain injuries treated in emergency departments—United States, 2001-2005

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[Announcer] *This podcast is presented by the Centers for Disease Control and Prevention. CDC- safer, healthier, people.*

[Matthew Reynolds] Welcome to *A Cup of Health with CDC*, a weekly broadcast of the MMWR, the Morbidity and Mortality Weekly Report. I'm your host, Matthew Reynolds.

About 38 million children and adolescents participate in organized sports every year in the United States, and over 170 million adults participate in some type of nonwork-related physical activity. We are bombarded with TV and radio messages touting the health benefits of staying physically active. But these activities also come with a risk, a risk for injury including traumatic brain injury or TBI. Today I will be talking with Dr. Julie Gilchrist, a physician in CDC's Unintentional Injury Prevention Division. She is here to talk to us more about traumatic brain injury in sports and recreation. Dr. Gilchrist, welcome to the show.

[Julie Gilchrist] Thanks for having me.

[Matthew Reynolds] Dr. Gilchrist, what is traumatic brain injury?

[Julie Gilchrist] Traumatic brain injuries, like concussions, are caused by a bump or blow to the head or the body that can cause the brain to bang inside the skull. These injuries can change the way the brain works and even a ding or what seems to be a mild blow can be serious.

[Matthew Reynolds] Can you give us an idea of how big of a problem TBI is within sports and recreation?

[Julie Gilchrist] Well, each year, almost 208,000 people are treated in emergency departments for traumatic brain injury from participation in sports and recreation, and kids 5 to 18 years of age account for almost two thirds of these visits, and beyond that, the highest rates are in boys and girls 10 to 14 years.

[Matthew Reynolds] Which sports or activities had the highest number of TBI-related emergency department visits?

[Julie Gilchrist] TBI can occur in any sport or recreational activity, but we found the greatest number of emergency department visits for TBI in kids 5 to 18 years are from bicycling, football, basketball, playground activities, and soccer. But

these are also the common activities with many participants, so we can't say that they are the riskiest activities.

[Matthew Reynolds] You mentioned some relatively popular sports like football, basketball, soccer. Were there other sports or recreation activities that stood out?

[Julie Gilchrist] Well since we don't have the participation information to directly compare activities, we compared the proportion of all injuries seen in emergency departments for an activity that are TBI. For instance, more than one tenth of all injuries in horseback riding that were treated in the emergency department involved traumatic brain injury, and that's a high proportion. Other activities with a high proportion of TBI among kids, included ice skating, riding all-terrain vehicles, hockey, and tobogganing or sledding.

[Matthew Reynolds] Should parents or coaches be concerned about the long-term effects of a TBI?

[Julie Gilchrist] Certainly. TBIs can cause a wide range of changes in how the brain works and it can affect thinking, language, learning, emotions, and even behavior, and this important in growing children. Kids who return to play too soon—while their brains are still healing from a concussion—risk having a second concussion, and second concussions can be very serious. They can cause permanent brain damage and affect you for a lifetime.

[Matthew Reynolds] Well let's say then that I am a coach or a parent who has a child playing a sport, and during the course of play they take a hit to the head. What should I be on the lookout for?

[Julie Gilchrist] Well, you can't see a concussion and some athletes may not notice or tell you about symptoms until hours or days after the injury. They may seem dazed or confused, they may not be able to recall things around the time of the injury, they may seem more emotional, depressed or even easily angered, and these can last from several minutes to weeks or even months. It's important to recognize the signs and symptoms and to get treatment right away. Remember, a concussion can exist even if you haven't been knocked out or lost consciousness.

[Matthew Reynolds] What is CDC doing to help prevent sports-related TBIs?

[Julie Gilchrist] Concussions and other brain injuries can occur in any type of sport or recreational activity, and since some activities have medical staff on the field, CDC has created the tool kit targeting physicians, called "Heads Up: Brain Injury in Your Practice," with a palm card with a lot of the signs and symptoms, useful information, and action steps for physicians. Additionally, CDC has created a new tool kit called "Heads Up: Concussion in Youth Sports," which is to

help coaches, parents, and athletes learn the signs and symptoms and the action steps to take when a concussion is suspected.

[Matthew Reynolds] If people want this tool kit, where should they go to get it?

[Julie Gilchrist] The kit can be ordered free-of-charge by visiting CDC's website at: www.cdc.gov/ConcussionInYouthSports - all one word.

This tool kit we hope will be helpful since youth sports coaches – they're on the front line in the effort to identify and respond to TBI, and they'll play an important role in sharing this information with athletes and their parents.

The tool kit actually contains fact sheets for the coaches, the athletes, and the parents in both English and Spanish, as well as a clipboard, magnets, and a poster with concussion facts.

[Matthew Reynolds] Well Dr. Gilchrist, thank you for taking the time to talk to us today.

[Julie Gilchrist] I am delighted to be here.

[Matthew Reynolds] That's for this week's show. Don't forget to join us next week. Until then, be well. This is Matthew Reynolds for *A Cup of Health with CDC*.

[Announcer] *To access the most accurate and relevant health information that affects you, your family and your community, please visit www.cdc.gov.*