Heads Up! Concussion Information for Physicians

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

[Dan Rutz] I'm Dan Rutz, your host for today. CDC, in collaboration with an expert work group, has recently updated the Heads Up: Brain Injury in Your Practice tool kit to help improve clinical diagnosis and management of mild traumatic brain injury, commonly known as a concussion.

Here to talk about it is Dr. Jean Langlois, one of the lead traumatic brain injury researchers at CDC's National Center for Injury Prevention and Control, and one of the authors of the *Heads Up* tool kit for physicians. Welcome, Dr. Langlois.

[Jean Langlois] Thanks, Dan. It's good to be here.

[Dan Rutz] There is a lot of information in the news lately about concussions, specifically about concussions among returning military personnel and athletes. Please explain what a concussion is and how it can happen?

[Jean Langlois] Sure. First of all, as you pointed out, a concussion is also known as a mild traumatic brain injury, or we also refer to it as MTBI. I will be using these terms interchangeably today. So a concussion - what is it? It's an injury that results in changes to how the cells of the brain function. It's caused by either a blow to the head or the body that causes the brain to move rapidly inside the skull. And there are a number causes of concussion. The leading causes are falls, motor vehicle crashes, unintentionally being struck by an object, and then we have assaults, and very importantly sports injuries. Finally, as you mentioned, the military - blasts are an important cause of concussion.

[Dan Rutz] So this is more than just a bump on the head, but obviously there is some variability of severity here. Well how many people actually get these concussions each year would you say?

[Jean Langlois] Each year in the United States, at least 1.4 million people are hospitalized, seen in an emergency department, or die. Of these injured individuals, most of them, we think about 75% to 90%, sustain a mild TBI or concussion as opposed to a more severe injury. However, the actual number – the total number – is likely to be a lot higher than that because many concussions are not treated. In fact, we estimate that 1.6 – 3.8 million sports- and recreation-related TBIs alone occur in the U.S. each year. And again, most of these are mild TBIs or concussions.

[Dan Rutz] Jean, you told us that many individuals who sustain concussions do not receive care for their injury. What do physicians and others need to know about this injury to help ensure that more individuals do get the care they need?

[Jean Langlois] Well, everyone needs to know that concussions and other TBIs can have serious and long-term health effects, but those who experience effects of concussions might not know that they are related to the blow to the head that they sustained. They also need to know that concussions can result in a number of problems, and these problems include persistent headache, pain, fatigue, some vision problems (usually blurred vision), confusion or memory problems (also very common), and sometimes sleep disturbances, or mood changes.

[Dan Rutz] These are fairly non-specific; they could be atttributed to other things I suppose, so it is a matter of linking that to the insult that the head's received, right?

[Jean Langlois] Right. Diagnosing concussion can be challenging because some symptoms might not be recognized until days, or even weeks, after the initial injury. Some of the symptoms of mild traumatic brain injury are common to those of other medical conditions too, such as acute or post-traumatic stress disorder, also depression, and some headache syndromes. Physicians should also know that they can play a key role. They can help to prevent concussion and facilitate recovery in their patients through early diagnosis, management, and appropriate referral to other professionals.

[Dan Rutz] Since you pointed out that diagnosing a concussion can be challenging, it looks like this is where this tool kit comes into play here. There are materials in the *Heads Up: Brain Injury in Your Practice* tool kit, many tips in here, to help physicians diagnose concussion. How does that work?

[Jean Langlois] Well, in particular, for a focus on diagnosis, is the ACE or Acute Concussion Evaluation. This tool was developed in collaboration with CDC, by researchers at Children's National Medical Center and the University of Pittsburgh Medical Center. The ACE is an innovative assessment that can be used for the initial evaluation and diagnosis of patients for either a known or a suspected concussion. What the ACE does is it guides physicians through an evaluation of the key factors for diagnosis. It includes the characteristics of the injury, how the injury happened, what the symptoms are that the patient's experiencing, and also some important risk factors that can lead to longer recovery. One feature of the ACE I wanted to point out is the management plan; this is very new. This helps physicians decide on the best plan for each individual patient to help them avoid re-injury and facilitate their recovery.

[Dan Rutz] It looks like a really important and valuable addition. What are some of the things that the tool kit recommends that patients do after a concussion?

[Jean Langlois] Rest is key for recovery from a concussion, but it's more than that. Patients shouldn't participate in any high-risk activities. These include things like sports, physical education, riding a bike, if any symptoms remain. It's also important for patients to limit activities that require a lot of thinking or concentration; this is what we refer to as cognitive exertion. These include things like homework for kids, and for adults, job-related activities.

[Dan Rutz] This really shapes up to be a very comprehensive and complete program or resource I should say. The question now is how can people get a copy of it? *Heads Up: Brain Injury in Your Practice* - where can we get one?

[Jean Langlois] Well, it's very easy. The tool kit is free and can be ordered or downloaded from CDC's Injury Center website and that's at www.cdc.gov/injury.

[Dan Rutz] Important information. Thank you, Dr. Langlois, for talking with us today. We appreciate your insight on this very vital topic.

For more information about concussions, traumatic brain injury, or injury in general, visit the CDC Injury Center's website at www.cdc.gov/injury.

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