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Do brain injuries happen to riders? Sandra Sokoloski BScPT, FCAMPT, CGIMS

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Typical rider conversation:

Rider 1: So how's things?

Rider 2: Not bad. Fell off a few days ago.

Rider 1: Oh no, did you get hurt?

Rider 2: Not really, just a concussion.

First, let's get one thing straight. Concussion is a very loosely used term for a brain injury due to the brain hitting the inner walls of the skull. That's right, a brain injury! "A complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces." Lots of big words, so 'brain injury' is close enough. TBI is the commonly used acronym for 'traumatic brain injury' and TBI's (aka concussions) are one of the most common injuries in youth sports. Research has declared that riding is one of the most dangerous sports based on the frequency of head and chest injuries and fatalities. So yes, riders get brain injuries all of the time!!

The majority of individuals recover from symptoms of a concussion in a week or ten days. The symptoms of a TBI are varied and the following are examples:

- Loss of consciousness (even briefly)
- Fatigue
- Memory loss (of events before, after or during the traumatic event; verbally repeating themselves)
- Dizziness
- Headache
- Nausea
- Confusion
- Interrupted thought processes
- Emotional fluctuations
- Decreased balance or physical coordination

Loss of consciousness/memory does not need to occur to have a concussion.

Dizziness at the time of the incident may be the best predictor of prolonged (more than 10 days) recovery along with initial symptoms of headache, loss of consciousness and low energy/fatigue. In one study, 13.7% of school-aged children had persistent symptoms 3 months following a mild traumatic brain injury. There is no known risk factor except having had a previous concussion.

The effects of concussion are cumulative and the severity of long-term consequences are becoming more clear. Second-impact syndrome is potentially fatal consequence believed to occur after a second concussion that occurs while an individual is still symptomatic from a previous one. One of the other issues for riders is that both initial and prolonged changes in balance and thinking have been seen following a concussion. This means that not only is your balance off, but you make poor and/or slow decisions. Not a great combination when riding a horse, and even worse if you are riding over fences and split second reactions are required. Your risk of another fall, and possibly another concussion, skyrockets!

If a rider has fallen and hit their head or experienced a whiplash-like movement of their head, immediate medical attention is imperative. Under no circumstance should that rider get back on at that time no matter how 'fine' they say they are. Return to riding should be determined by a medical professional and it is careless and negligent to do otherwise. The effects of a TBI may not be readily apparent and will be uncovered with a few simple brain and balance exercises. Once a rider is not symptomatic, light aerobic exercise (i.e. cycling, light jogging, brisk walking) should be attempted before they decide to ride. Furthermore, if that rider is at risk of falling for any other reason (i.e. naughty horse, fatigued, sore back) the circumstances should be improved before they get back on.

So, next time you or someone you know has "just a concussion" you will know better. Your brain is in your hands!

