



MX Riders: Think you might have a concussion?

- Headache that won't go away
- Feeling 'in a fog'
- Can't remember the crash
- Confused
- Dizzy/off-balance
- Feeling 'slowed down'

Awareness of concussions among high school athletes playing football, hockey and other sports has increased dramatically in the past few years. Parents and coaches are beginning to understand the dangers associated with concussions. Now, new information is emerging about concussions in motocross riders, thanks to studies at Mayo Clinic in Rochester, Minnesota.

How do you know if a rider has suffered a concussion? When do you take them to see a doctor? When is it safe for them to get back on their machine?

Mike Quinn is trying to answer those and other questions for motocross racers, trail riders, and their parents; and is very qualified to do so. Quinn is the Chairman of ARMCA (Amateur Riders Motorcycle Association), Minnesota's District 23 of the American Motorcyclist Association (AMA). He is also a long-time rider and racer, a referee at motocross events, and a Certified Registered Nurse Anesthetist (CRNA) at Mayo Clinic.

In 2010, Quinn was part of a medical team at Mayo Clinic that released the findings of a study reviewing hospitalizations and surgeries following motocross injuries. They discovered that roughly 30% of those injuries were concussions, and today are educating motocross families, about concussions, and how to identify and treat them. They are also developing a protocol for returning to racing safely. "In sports like football, players have to sit out after a concussion and go through a re-entry program to make sure they've fully recovered. There's nothing like that for motocross," said Quinn.

Here is more information Quinn offers to motocross families, in his own words:

The importance of a proper-fitting helmet:

"We know for a fact that proper fit is critical. The most significant factor we learned from the concussion study is that if people go into their motorcycle shop and have someone who knows what they're doing help them fit their helmets, their concussion rate dropped by 42%."

Recognizing a concussion:

"You do not need to lose consciousness for a concussion to occur. What parents can do, if a child goes down and hits their head, is give them a number to remember and a name to remember, and every so often ask them that. If they remember it right away, they're probably in pretty fair shape. If there's any memory loss, then you assume concussion.

"Park the bike, rest and watch for headaches, excessive sleepiness or throwing up, because those are the immediate signs of a concussion. You just don't feel like yourself, things don't seem quite right, those are symptoms of a concussion. If they have any of those symptoms, the recommendation is that they go in and be seen by a doctor."

What's Next?

- PARK THE BIKE
- See a medical provider
- Call Mayo Sports Medicine for the MX Return to Ride Program

Mayo Clinic
Sports Medicine
507-266-7800

MC1561

Resting the brain is critical:

"With kids who do suffer a concussion, for the first few days to a week, we want them to just rest the brain. For kids that come through the clinic, they're off school, they're off video games, they're on complete rest for a while. Then if they've had no headache, say, for a week, we'll let them start getting some exercise, maybe doing a little training. We'll keep advancing it until we think they're ready to go. A lot of it has to do with increasing your exercise and brain stimulation level, being able to do it without getting headaches."

The importance of proper re-entry:

"We're working on a protocol for motocross, but we can go by other sports. Concussion in a rider less than 18 years old is much more significant and really needs treatment even more than the adult. Older football players take a concussion, they get tested and 4 days to 2 weeks later they're ready to go. But for most kids it's probably in the neighborhood of 3 to 6 weeks. The reason for that is, the rider 17 or under is subject to something called 'second impact syndrome.' That occurs when they take a second hit to their head before they're fully recovered from the first one. I do not know percentage-wise what the incidence rate of that is. I do know that of those kids that have second impact syndrome, it's a minimum of 70% fatal."

Base-line testing at Millville:

Mayo Clinic is doing additional research, including an in-depth look at chest protectors and other protective gear, and the importance of having a base-line test to compare to should a racer hit their head. At last year's Spring Creek Motocross Pro National in Millville, Minnesota, Quinn and Amy McIntosh, M.D., Mayo Clinic Department of Orthopedic Surgery, offered free base-line testing. About 50 racers completed a multi-page survey, which Mayo Clinic will refer to should the racer suffer a concussion or other injury. "It measures your base line function, so that if you hit your head, 2, 3 or 4 days later, we can retest you and we'll know where you are according to your base line. That's one kind of definitive way to know when they can return," said Quinn.

Mayo Clinic has developed a pocket-size "concussion card" with information on identifying and treating concussions. Information regarding how to obtain a card is being gathered.

For information on helmet standards, a database of compliant helmets, how to properly fit a helmet, and more, visit this website developed by the Motorcycle Industry Council (MIC) www.helmetcheck.org.