

CBC News

Concussions: how to handle hockey's head cases

By Kristina Rutherford on November 17, 2008 7:13 PM



(Bruce Bennett/Getty Images)

Players who feel dazed after a big hit or fall should be taken off the ice immediately and stay off for the rest of the day, says concussion specialist Karen Johnston.

Players often call it a 'bell-ringer.'

It's the big hit that happens after a suicide pass, or when a skater turns up ice with the puck, head down, and gets run over. Crushed. Dinged.

Whatever you call it, skating off the ice can be challenging with the disorientation, dizziness and hazy feeling that comes with getting your bell rung.

Hockey concussion specialist Dr. Karen Johnston says the course of action after one of these big hits should always be the same -- and it never involves 'shaking it off.'

"You automatically have to ask questions," she says. "The key thing is to get that player off of the ice, whether it's the game, practice, playoffs, whatever it is. You've got to get the kid out."

Even if the player claims to be feeling fine, that's it for the day, Johnston says.

"Symptoms may be much worse later that night, and even again the next day. You can't always tell on the ice at that time, so even if they just felt dazed or dinged, they come off, and I don't care how important a game it is, they do not go back that same day.

"I think adrenaline protects you from the pain and the symptoms sometimes. Often they don't manifest themselves until the next day."

The next step is going to see a doctor, something every person who may have a concussion needs to do, Johnston says. "No exception."

One of the country's leading hockey concussion specialists, she has counseled NHL stars plagued by concussions like Eric Lindros and goalie Mike Richter, who retired from the New York Rangers in 2003 on Johnston's recommendation.

Child specific treatment

Most of the patients she sees at the Toronto Rehabilitation Institute are recreational players, and a good number of them are youth. As the study of sports concussions progresses, what doctors are now finding is that children's brains react differently than adults to the shock of the brain injury.

"You often see a pattern in children that they develop really refractory headaches [that are irresponsive to treatment] for quite a while, and we do see headaches in the adult population, too, but somehow it seems disproportionately high in the younger age group," Johnston says. "The other main thing is that when kids get concussed, you realize that part of the treatment for concussion is to avoid physical exertion for a while, but also to avoid cognitive exertion."

That means children may need to be taken out of school to avoid work that demands the use of concentration or memory, and to give the brain the rest it requires.

"Otherwise they go to school, they can't focus, and they get this persistent pattern of symptoms, and you want to interrupt that before it happens," Johnston says. "In the long run they can lose semesters, they can lose school years. It has a huge impact on the pediatric population, to say nothing of how it may actually have more implications in terms of growth and development."

Strides are being made as to what doctors know about child concussions, and while many questions remain, Johnston says the key to this underreported injury is to spread awareness about the symptoms.

Headaches, dizziness, nausea, disorientation, lightheadedness, a feeling of being rattled - these are all telltale signs of concussion.

"If people know what to look for, they can intervene early, and you can actually extend a career that way," Johnston says. "The more we can educate people about that, the better success we'll have in terms of recovery."

"People need to understand the risks and the benefits of playing versus appropriate management. The mandate of the person looking after the kid has to be not just to get them off the ice, but also to send them back when it's safe."

The mandate of the coach at the minor level also has to be prevention, says Dr. Brian Benson. A hockey concussion specialist with the University of Calgary, Benson focuses his research on prevention.

Prevention goes beyond equipment

The doctor says equipment plays a role - a custom mouth guard, full facial mask and new helmet are important - but it goes beyond that.

"Attitudes and behaviour are key," he says, "especially when we're talking about the youth level."

It starts with the parents, but Benson says it's the coaching that plays the most important role.

"The players adore their coach and they'll listen and do anything the coach wants them to do to win. If you get a coach that's demanding physical play and hitting it certainly can put them at risk."

Teaching players not to lead with their heads, to be aware of where they are on the ice, to keep their head on a swivel going into the corners, and to avoid putting themselves in vulnerable positions are all things Benson says coaches should hammer home.

"At a young age we've got to start this, devoting attention and time and the education that can cultivate that life-long appreciation for the preventative aspect and awareness," he says.

"When you start giving all this education when they're at the professional career it's too late. You've got to get at them early."

Concussion resources for coaches

- ThinkFirst Foundation of Canada offers information on concussions including hand out cards for coaches to give their players and parents to answer questions about concussions, including definitions, symptoms and treatment.
- Baseline testing is available on websites (www.impacttest.ca and www.sportconcussions.com are two) where players can take the same tests as NHL players to evaluate memory, reaction and concentration. The test is taken at the beginning of the season and if a player does suffer a concussion during the year, the doctor will access the test and use it as a comparison to find out when he/she is ready to return to the ice.

This is part 2 of Our Game's three-part series on concussions.