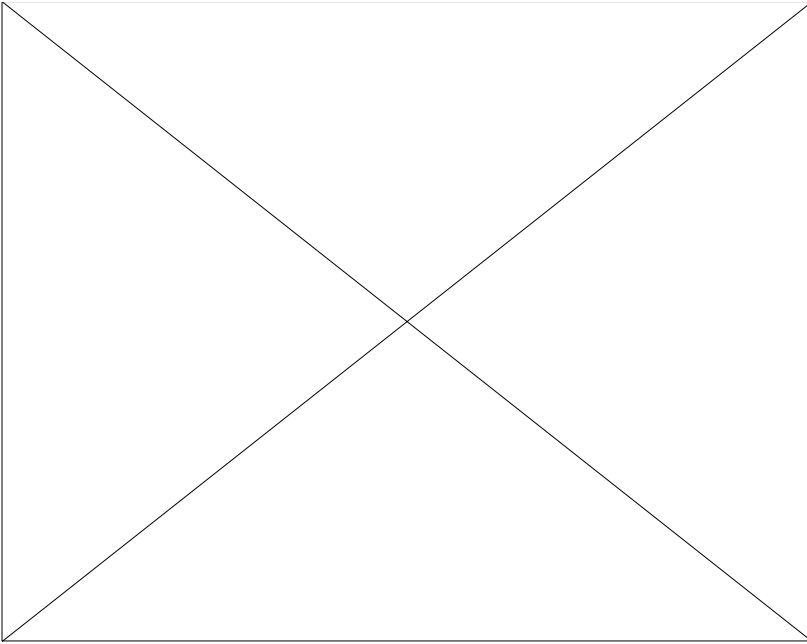


CONCUSSIONS IN HOCKEY: SECOND OF TWO PARTS

TheStar.com | Sports | Players put team

VIDEO: Mark Moore is looking for ways to decrease concussions



JASON COHN/REUTERS FILE PHOTO

Ex-Flyer Keith Primeau says NHLers won't take themselves out of the playoffs and never think of injuries' long-term ramifications.



[Email story](#)

Print

Choose text size

Report typo or correction

Email the author

License this article

BOOKMARK

VIDEO: SLIDESHOW ON CONCUSSIONS IN HOCKEY

PART 1: THE HUMAN TOLL OF CONCUSSIONS

PART 2: PLAYERS PUT TEAM ABOVE HEALTH

PHOTO GALLERY: SCARY MOMENTS ON THE ICE

VIDEO: MARK MOORE AND POSSIBLE SOLUTIONS

VIDEO: NEUROSURGEON DR. CHARLES TATOR

A TALE OF TWO TEENAGERS

HOCKEY CAREERS LOST TO CONCUSSIONS

A CONCUSSION PRIMER (.PDF)

INTERVIEWS

ERIC LINDROS

KEITH PRIMEAU

SCOTT STEVENS

SIMON GAGNE

STU GRIMSON

JEFF BEUKEBOOM

COLIN CAMPBELL

RELATED LINKS

THINKFIRST FOUNDATION

SAVING THE GAME

Four could be solution to problem

The statistics alone are enough to make you dizzy. And to read even what one player with a severe concussion and his family have gone through, your head aches.

Dec 24, 2007 04:30 AM

RANDY STARKMAN
SPORTS REPORTER

The Philadelphia Flyers refused to utter the c-word regarding Simon Gagné.

Gagné wasn't keen to use it himself, either. He suffered a concussion when he got clipped on the chin in a game Oct. 24, sidelining him for four games. He wasn't totally up-front with the Flyers about his post-concussion symptoms when he returned and got knocked out the lineup again two games later.

This time, the Flyers said he was dehydrated. It would take three weeks before they finally admitted he had a concussion.

This double-edged sword – players not coming clean on concussion symptoms; teams being oblivious to them – has been a lethal mix to many a pro career. Research by the *Star* has found at least 30 players whose careers were ended by concussion – or in large part due to concussion – since 1996.

Gagné doesn't want to be the next one.

"I have to see the big picture, not the small picture," he said in a recent telephone interview. "If it has to take longer, maybe another extra month, I'm going to take the time I need."

But that "big picture" would get jettisoned in an instant if it were the playoffs right now. Gagné says he'd almost certainly be on the ice, symptoms or not – and history indicates neither his team nor the NHL would stop him.

"It's your reputation as a player, too," said Gagné. "You don't want to let your team down when you still may be able to play a little bit and help the team. But in the big picture, that guy might not be playing in two years."

In Gagné's case, he still had some pressure in his head when he returned this season after initially sustaining a concussion. He said he told the Flyers about it, but also told them he was ready to play. Concussion guidelines recommend no player return until they're completely symptom-free.

"Maybe I didn't really tell them all the truth, but on the other side I told them that I had a little bit of pressure," he said. "I don't know. Like I said, I was a hockey player that wanted to go back and play – and that's what I did. If nobody tells me, 'You're not playing,' I'll go and play."

The head of the NHL's neuropsychological testing program says the general medical consensus is that players should be kept out of the lineup until they're symptom free – unless it's the playoffs.

"It's not a simple decision of, 'Do you have symptoms or don't you have symptoms?'" said Dr. Ruben Echemendia. "There are a lot of other factors that come into play – who's the player, what team are you playing, what game is this? All those factors do come into play."

Echemendia said he views any return-to-play decision as "a combination of risk benefit analyses."

"For example, a player who gets hurt in the first game of the season may have a different risk-benefit ratio than the final game of the Stanley Cup," said Echemendia, president-elect of the National Academy of Neuropsychology. "That's for them to think through. These are competent people, they're adults."

But if the player were concussed, wouldn't his thinking be impaired? Does his brain have less chance of further injury because it's the post-season? And what are the odds these hockey warriors will take themselves out of a playoff lineup?

"They're not going to do it," said former Flyers captain Keith Primeau. "Guys aren't going to think long-term. We never do."

He speaks from experience. One of Primeau's prouder moments as a hockey player is also the one he calls "the most erroneous decision I ever made."

Knocked out cold and carried off on a stretcher in the series-clinching victory against Pittsburgh in the 2000 playoffs, Primeau came back to play in Game 1 of the next series against New Jersey.

"That's definitely the one that I most greatly reflect on, is that one there and how proud I was that I played in Game 1 of the conference finals," said Primeau, who still suffers symptoms. "But now, in retrospect, I jeopardized my health."

Gagné knows all about this. He had a long conversation with Primeau recently, but says it still wouldn't likely cause him or any other player to stop playing in the playoffs, even with a brain injury.

"I think it will take a lot of time before you see that happen in the playoffs," he said. "The more you're going to have big examples of guys ending their careers because of that, maybe there's going to be a wake-up call around the league."

Echemendia said there are two critical areas in making a diagnosis of when to return to play: the player's symptoms and neurocognitive tests.

Players do neuropsychological testing at training camp to establish a baseline for brain function. The tests measure such aspects as reaction time, memory, attention and concentration.

The NHL adopted the computerized Immediate Post-Concussion Assessment and Cognitive Testing (ImPACT) system this season. It's felt it better protects against the "practice effect" – some players were getting really good at the paper and pencil tests because they were taking them so much.

It's also supposed to guard against sandbagging, where players desperate to stay in the lineup purposely do poorly on the test to make it easier to get back up to their baseline score once they've suffered a concussion.

"I think that (not trying hard on the tests) is clearly the case of some players, but I think we are getting across to both the players' association and the league that this is serious and that playing around with them can cause career-ending injuries," said Echemendia.

Still, Gagné has lost confidence in the ImpACT test. He failed it twice after the concussion he suffered on one of those legal shoulder-to-chin hits from Florida's Jay Bouwmeester that the NHL is reluctant to outlaw. But he passed the test on his third try despite still suffering symptoms.

"Now, I'm kind of doubtful those tests are good enough to help the players know if you're okay to go back and play," Gagné said. "In my case, I was not okay to go back and play and I passed the test. The league has to find something else to help the players to know when to come back."

The creators of the test point out it's to be used as only one factor in the return-to-play decision and shouldn't be viewed as gospel.

The NHL has no published guidelines regarding return-to-play protocol. NHL deputy commissioner Bill Daly said it's up to individual team doctors to make the decisions based on a number of factors.

"I don't think there should be a different standard between regular season and playoffs," said Daly. "I'm not sure that our team physicians would ... apply any different standard in the playoffs and the regular season. Now, a player might apply a different standard as to whether he thinks he's ready to play."

It's readily apparent the players have one standard at playoff time: good to go. Given that, it must be incredibly hard for them to make a rational decision.

"It is incredibly difficult," said Echemendia. "With this type of injury, we're never 100 per cent sure. It's not like an ACL where we can visualize it and go in and repair it and go in and say it's going to take you five or six months but you'll be back. With concussions, there are too many unknowns. When you really stop and think about it, the research in sport concussion is only 10 to 15 years old."

Some of that research is frightening.

A University of North Carolina study reported in 2005 that retired NFL players faced a 37 per cent higher risk of Alzheimer's than similarly aged U.S. males. It also found repeated concussions significantly raised the chance they'd suffer dementias such as mild cognitive impairment later in life.

Kevin Guskewicz, one of the authors of that study and head of the Center for the Study of Retired Athletes, said their initial approach to the NHL to do similar research was turned down, but they plan to ask again.

A neuropathologist who examined former NFL safety Andre Waters' brain after his suicide a year ago said the 44-year-old's brain tissue was that of an 85-year-old man and showed signs of early stage Alzheimer's. Asked once how many concussions he'd had, Waters replied: "I think I lost count at 15."

Dr. Karen Johnston, a noted neurosurgeon who runs the new sport concussion clinic at Toronto Rehab, said there is an unwillingness among struggling former NHLers to come forward for help.

"You often hear people say, 'Oh, I went through all that and look at me, I'm okay,'" she said. "But for every one person you hear that from, believe me, I've been approached by more coming to me and saying, 'Yeah, I did have that problem and these are the problems I've got now and nobody knows about it and, no, I'm not going to ... talk publicly about it.'"

Former NHL enforcer Stu Grimson isn't reluctant to talk.

Grimson, whose career ended in 2002 because of post-concussion syndrome, suspects that any study of retired NHLers won't vary a lot from what's been seen in the NFL. He bases his opinion on what he's read and what he's seen others go through in similar circumstances.

"Here's the one thing the docs will tell you, too, is my generation of athletes will be the ones to more accurately tell the tale of what the effects are later in life for somebody that suffers significant head trauma or even insignificant but repeated head trauma," said Grimson, now a lawyer.

Known as the Grim Reaper in his playing days, he is a grim realist when he contemplates the impact his concussions will have on his future. "I'd be very surprised if someone who suffered as much trauma as I did didn't pay a price for it later in life." said Grimson.