

March 24, 2015

Dear Surrey Minor Lacrosse Association,

In my role as a consultant physician to the Vancouver Canucks, Canadian Olympic Team physician in Sochi 2014, and Physician Lead of the Canadian Freestyle Ski Association, I have practical experience with the changes in management of head injuries in professional sport. Concussion management in professional vs. amateur sport tends to be very different. I believe the time has come for us to facilitate change in concussion management at the minor league, recreational and youth sport level. Fifteen to twenty percent of all participants in contact sport will suffer a concussion. Current amateur sport policies do not always result in optimal management of these frequently occurring injuries.

A sound concussion management policy can play a critical role in reducing the after-effects of concussion and preventing potentially fatal injuries in recreational sport. We know that if concussed athletes receive appropriate care, the risk of serious long term or catastrophic injury is significantly reduced. Concussions become dangerous when a player re-enters the field of play too soon. If the brain has not fully recovered, a second hit can result in a more severe brain injury (Second Impact Syndrome). The field of concussion prevention is evolving and much good work is being done; changes in hitting rules, better protective equipment etc, and while these are important measures, they don't address the issue of **preventing premature return to sport**.

Until recently, symptoms have been the main marker which clinicians have used in making return to sport decisions. Unfortunately, research shows that symptoms alone provide an insufficient measure of brain recovery. Evidence shows that when the brain has fully recovered, we see a return to pre-injury levels of ability in multiple domains, some of which include reaction time, balance, response to cardiovascular stress, cognitive abilities and visual processing. Current practice in post concussion management may include post injury measurement of one or two of these domains, however without pre-injury comparison tests such evaluations are imprecise. In order for testing to be optimal in determining a safe and durable return to sport, a baseline test of performance prior to injury is needed.

Multi-faceted baseline testing of brain function is what I recommend for all participants in contact sport. Re-entry into the field of play should only be permitted once a player has demonstrated the ability to perform tests at their pre-injury level. This is the management strategy in professional sport and ideally, the same should apply to amateur sport.

Sincerely,

Dr. Jeff Purkis  
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Medical Consultant, Back in Motion Physiotherapy Concussion Program

- Physician Consultant, Vancouver Canucks Hockey Team 2004-present
- Team Physician Canadian Freestyle Ski Association 1988 - present
- Medical Director, Canadian Freestyle Ski Association 2013 – present
- Team Physician, Canadian Olympic Committee, Sochi Winter Olympics 2014
- Freestyle Medical Coordinator, Vancouver 2010 Winter Olympics Cypress Mountain
- Team Physician, Canadian Olympic Committee, Torino Winter Olympics 2006
- Blackcomb Mountain Ski Patrol Physician 1988-present
- Head of Department of Emergency Medicine Peace Arch Hospital 1990-1994
- Emergency Medicine Physician, Peace Arch Hospital 1987-2005

*\*Dr. Purkis is available on a consultant basis to assist in management of more complex concussion injuries. Dr. Purkis does not directly or indirectly supervise the management of every concussed athlete.*