

### **One NHL Trainers Approach To Preventing, Managing And Treating The Myriad Of Challenges Presented By A Professional Hockey Team**

Professional Hockey presents unique challenges to the modern athletic trainer. Defined as a 'collision sport'; it features highly conditioned athletes traveling at speed on narrow blades across a hard, unforgiving surface. Add long sticks and a puck traveling at speeds of up to 100 mph and you have a unique blend circumstances that combine to create numerous injuries. Advances in protective equipment design and higher standards of refereeing have reduced the severity of injuries but they are unfortunately still a daily occurrence.

At any level, it is extremely physical and yet, requires grace and finesse. The twisting and turning required to bring balance places stresses on the body found in no other sport. High speed impact and trauma result in their own unique injuries. Just the length of the season and the endurance required for each game also factor into predisposing these athletes to injury.

We asked the trainer for the Buffalo Sabres, Tim Macre ATC, CSCS, what all this means for someone trying to keep these athletes healthy.



### **How long have you been a professional trainer Mr. Macre?**

**Tim Macre, ATC, CSCS:** I just finished my 13th season in professional hockey. I started in 1996 as the Athletic Trainer for the New York Rangers top affiliate in the American Hockey League, and in 2005 made the move to the NHL with the Buffalo Sabres

### **Common wisdom has it that the most common injuries are upper body lacerations and contusions, is that your experience?**

**TM:** I do see quite a few facial lacerations throughout the course of a season, and a majority of the injuries we get are contusions to the foot, ankle, wrist and hand. This is mainly due to the nature of the sport with pucks and sticks flying around on the rink.

### **The shoulder joint seems particularly vulnerable in the game of hockey, what has been your experience?**

**TM:** The shoulder itself is vulnerable to injury, as it sacrifices stability for mobility. By that I mean that the glenohumeral joint has a very large range of motion, and because of this motion, we can get into positions that make the shoulder very unstable. Add to that the size of today's NHL player, and the speed at which the game is played, and the shoulder can become very vulnerable.

Preventing shoulder injuries is the key, proper warm-up and stretching before activity, as well as strengthening the rotator cuff and scapular stabilizers go a long way in keeping a shoulder healthy.

### **The player's knees must take a beating during a game. Do you do anything in particular to prevent injury to the knee?**

**TM:** I take a total body approach to prevention of injuries. Remember the children's song "the foot bone is connected to the ankle bone..." Well that is how I look at things, in terms of the kinetic chain. In order to prevent knee injuries I believe one must address proper warm up, range of motion and strength of not only the knee, but also the foot/ ankle and the hip / pelvis/ low back. Motion and strength imbalances in any of these areas should be addressed in a good preventative program.

**Are surgeries common among your players? And if so, what do you see most and how do you approach post surgical rehabilitation?**

**TM:** Surgeries are a necessity at times, and in the NHL, good outcomes are a must. Luckily, NHL players are very motivated when it comes to their rehabilitation program. Adherence to the physicians' protocol, and effectively completing each phase of the rehab program are key in returning a player to competition. Range of motion, strength and functional ability, including sport specific activity all must be addressed, while not sacrificing one for another.

**How fast do skills deteriorate when an athlete is off the ice due to injury?**

**TM:** The players I work with are some of the world's best at their sport, so I wouldn't really say that their skills deteriorate when they are off the ice due to an injury. We always try to incorporate sport specific activities in their rehab program whenever possible. This helps to keep the player interested in the rehab process. That being said, once a player returns to a game after an injury, it may take him a few periods to "blow the dust off", and get back up to speed with his teammates, and to get his timing back.

**Is there anything you can do to prevent certain injuries?**

**TM:** In ice hockey, as in every other sport, I believe the key to preventing injury begins with proper hydration. If a player is dehydrated and does not have the proper stores of electrolytes in his body, then they are more susceptible to muscle strains.

Proper warm up before activity, stretching before and after activity, a good strength and conditioning program, and proper fitting protective equipment also go a long way in the prevention of injuries.

**You are the first NHL trainer to use a Litecure, Class IV laser in the locker room. How has that helped you and would you recommend it for other teams and or sports?**

**TM:** The Litecure has been great this past season. The effectiveness of this laser in reducing pain levels of foot and ankle contusions, AC joint sprains, and wrist sprains surprised even me. The deep penetration of this unit even allowed for use on hip flexor and groin strains with excellent results.

**What other modalities do you utilize?**

**TM:** I try to not use a lot of modalities, and prefer a hands on approach. That being said, when indicated, I use ultrasound, and have a variety of electrical stimulation units that we may use. To me one of the biggest indicators of the value of a modality is athlete feedback. NHL athletes are very "in tune" with their bodies and will provide feedback throughout any treatment. Many of my players have identified the Litecure as a modality that truly helps them feel better and ask for it by name.

**It has been said that most injuries occur in the last five minutes of a period. Is that your experience and do you see fatigue as a big factor?**

**TM:** I think that fatigue can be a huge factor in the incidence of injury. In the NHL players have to be at the top of their game for an 82 game season. With travel and our schedule of games, it can be a grind at times. Players must make sure that they are well rested and ready to go not only for games but practices also.

**How do you keep up to date on the latest trends and research?**

**TM:** I like to read journals and attend educational symposiums in the off-season. I also like to talk to my peers not only in the NHL, but also in NFL, NBA and MLB, as to the latest tricks, techniques and equipment that they have been using.