

Hockey: Staying in the Game

Do you enjoy a good game of pick-up hockey or belong to a league? Do your children participate in youth hockey? Hockey is gaining popularity as a recreational sport for players of all ages and abilities, who enjoy the fitness and social benefits of a fast-paced team sport.

Due to the high speed and aggressive play involved, hockey has been called a dangerous sport. One researcher compared hockey sticks to clubs, skate blades to knives, and fast moving pucks to bullets [7]. Most of us can probably remember hearing about hockey-related injuries, either at the professional or recreational level. Some basic information can help you develop preventive strategies to make the sport safer.

Common Causes of Hockey Injuries

Although sticks, pucks, and skate blades can do damage, most hockey-related injuries occur due to collisions with other players and the boards [3]. Fatigue and low energy of players due to poor endurance, insufficient rest, or too much ice time can also make them more likely to get hurt [8].

Who Gets Hurt?

Alarmingly, nearly half of hockey-related emergency room visits involve recreational players between the ages of twelve and seventeen [4]. Worse still, players under the age of twenty account for half of all hockey-related spinal cord injuries, caused mainly by colliding with the boards after being checked from behind [9]. Interestingly, studies show there is no significant difference in injury rates and causes between men's and women's hockey leagues [6].

What are the Most Common Injuries?

Most hockey injuries involve the upper body, and can include fractures, sprains and strains of the collarbones, hands, arms, elbows, neck, and shoulders. Concussions are the most common type of head injury, followed by facial cuts, dental and eye injuries. Low back, groin, hip, knee, and ankle injuries also occur frequently [3, 9].

Since hockey players are susceptible to such a wide range of injuries, you may be asking if there is anything you can do to minimize your risk of getting hurt? Yes! Some simple tips may be helpful in keeping you on the ice:

Training

A good training program should involve cardiovascular, stretching, and strengthening exercises. Cardiovascular training will increase endurance and decrease fatigue, which has been linked to injuries [8]. Even the fittest players should take breaks often to rest, drink fluids, and stretch stiff muscles. A comprehensive stretching program for the back, arms, shoulders, thighs, and legs should be performed both before and after games to keep muscles limber and prevent stiffness and soreness.

Strengthening programs have been shown to prevent muscle strains in professional hockey players. A study of fifty National League Ice Hockey players showed that players were seventeen times more likely to experience debilitating groin pulls and inner thigh injuries if these muscles were significantly weaker than those of the outer thigh [11]. A second study showed that a six-week strengthening program was effective in preventing groin injuries in professional players [10].

Finally, low levels of off-season hockey training predispose players to injuries of the thighs and groin, so it's wise to play hockey year-round, even if summer hockey is limited to pick-up games [2] .

Equipment

Although hockey equipment is expensive, properly fitting gear, including helmets, mouth guards, shoulder, and elbow pads, can make a world of difference when it comes to avoiding injury. Helmets have a life span of three to five years, depending on how often they are used [5]. When purchasing a helmet, make sure to choose one with a full face shield, since face shields have been proven to reduce the severity of concussions regardless of the wearer's experience level and position when compared to visors alone [1].

Ten Tips for Preventing Hockey-Related Injuries

- 1. Stretch both before and after the game.**
- 2. Participate regularly in an exercise program to improve your strength and endurance.**
- 3. Play year-round.**
- 4. Obtain proper treatment for old injuries before returning to play.**
- 5. Choose a helmet with full face shields.**
- 6. Make sure all your equipment fits properly.**
- 7. Replace worn out equipment.**
- 8. Make sure your rink temperature and ice surface are well-maintained.**
- 9. Play fair and support a zero tolerance rule for illegal checks and maneuvers.**
- 10. Consult your chiropractor if you are injured or experience pain while playing.**

If you experience pain while playing or if you are injured, seek care immediately. Doctors of chiropractic are trained to diagnose and treat many sports-related injuries, and proper early treatment of an injury will help you get back on the ice sooner. Your chiropractor can also help you develop a sport-specific training and exercise program and give you tips and advice on how to stay in the game.

References:

1. Benson BW, Rose MS, Meeuwisse WH (2002). The Impact of Face Shield Use on Concussions in Ice Hockey: A Multivariate Analysis. *Br J Sports Med*; 36(1): 27-32.
2. Emery CA, Meeuwisse WH (2001). Risk Factors for Groin Injuries in Hockey. *Med Sci Sports Exerc*; 33(9): 1423-33.
3. Flik K, Lyman S, Marx RG (2005). American Collegiate Men's Ice Hockey: An Analysis of Injuries. *Am J Sports Med*; 33(2): 183-7.
4. Hostetler SG, Xiang H, Smith GA (2004). Characteristics of Ice Hockey-Related Injuries Treated in US Emergency Departments 2001-2002. *Pediatrics*; 114(6): 661-6.
5. McFaull S (2001). Contact Injuries in Minor Hockey: A Review of the CHIRPP Database for the 1998/1999 Hockey Season. *Canadian Hospitals Reporting and Prevention Program Newsletter*; 19(1): 1-13.
6. Schick DM, Meeuwisse WH (2003). Injury Rates and Profiles in Female Ice Hockey Players. *Am J Sports Med*: 47-52.
7. Sim FH, Chao EY (1978). Injury Potential in Modern Ice Hockey. *Am J Sports Med*; 6(6): 378-84.
8. Smith AM, Stuart MJ, Wiese-Bjornstal DM, Gunnon C (1997). Predictors of Injury in Ice Hockey Players. *Am J Sports Med*; 25(4): 500-7.
9. Tator CH, Provvidenza CE, Lapczak L, Carson J, Raymond D (2004). Sports Injuries in Canadian Ice Hockey: Documentation of Injuries Sustained from 1943-1999. *Can J Neurol Sci*; 31(4): 460-6.

- 10. Tyler TF, Nicholas SJ, Campbell RJ, Donellan S, McHugh MP (2002). The Effectiveness of a Preseason Exercise Program to Prevent Adductor Muscle Strains in Professional Ice Hockey Players. *Am J Sports Med*; 30(5): 680-3.**

- 11. Tyler TF, Nicholas SJ, Campbell RJ, McHugh MP (2001). The association of hip strength and flexibility with the incidence of adductor muscle strains in professional ice hockey players. *Am J Sports Med*; 29(2): 124-8.**

