

Ice Hockey Injuries

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Professional ice hockey originated in the Upper Peninsula of Michigan and spread throughout Canada in the early 1900's. Today, hockey is a widespread sporting activity played at the youth, collegiate, Olympic, semiprofessional and professional levels.

The speed, contact, ice, encircling boards, and unique equipment including sharp skates, a projectile puck and long sticks provide a unique set of risks for injury in ice hockey. Despite these risks, ice hockey has less injuries than most other popular team sports. Protective equipment, proper technique, adequate conditioning and good sportsmanship are key to prevention of serious injuries

Data gathered from a variety of sources including the NCAA injury surveillance system, national electronic injury surveillance system and individual studies on sports injury epidemiology show that by comparison ice hockey is among the safest collision sports and compares favorably to non-contact sports like basketball, baseball and soccer. Most of these studies take into account the fact that less people participate in hockey than other sports by representing injuries as a rate per 1,000 participants.

Despite the fact that hockey is relatively safe compared to other sports there are several trends

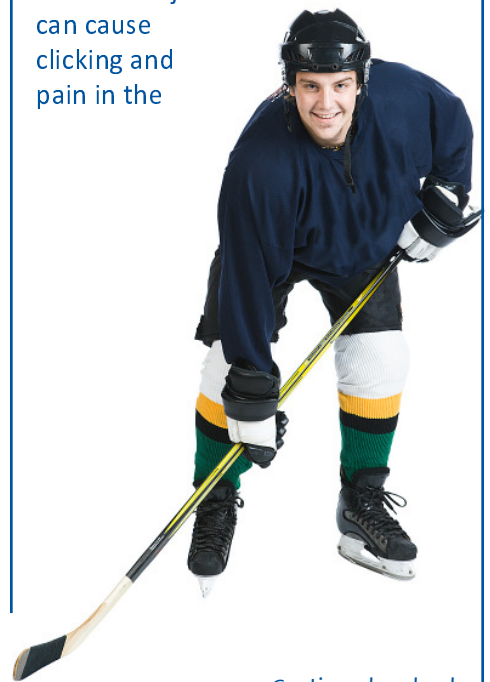
seen in the epidemiological analysis of hockey injuries that are worthy of mentioning. Most injuries occur during games. Most injuries are due to contact with another player or the boards. Injury rates increase with increasing age of the player. Forwards have the greatest risk of injury and goalies have less risk. Injuries have decreased over the last 15 years corresponding to rule and equipment changes designed to improve the safety of hockey.

Acute Traumatic Injuries

HEAD AND NECK. Although the vast majority of injuries to the head are minor, these injuries can also be the most devastating in hockey. Cervical spine injuries are the greatest concern. The mechanism of injury is typically a check from behind or fall causing head contact with the boards. Head injuries including concussions are relatively common and require medical management to prevent any complications. Eye injuries have dramatically decreased since the use of face shields but can be disabling when they occur. Laryngeal fractures and neck lacerations are exceptionally rare but catastrophic when they do occur. Neck guards have been recommended to decrease the chance of these injuries but little data exists to demonstrate efficacy. Dental

trauma and facial lacerations are common and require rapid medical attention.

LOWER EXTREMITY injuries are less common in hockey but hip pointers or contusion to the hip and pelvic bone occur from contact or collision. Groin strains are uniquely common in hockey and although most resolve they can become chronic disabling conditions. Quadriceps contusions are relatively common injuries resulting from collisions with other players and can result in significant lost time from the sport. Knee ligament injuries are less common in hockey, but injuries to the medial collateral and anterior cruciate ligaments do occur and are typically caused by contact. Meniscal injuries can cause clicking and pain in the



Common Conditions that Benefit from Physical Therapy

SPORTS INJURIES

- Concussions
- Dislocations
- Fracture recovery
- Hip, back, shoulder, and neck
- Joint pain
- Orthopedic injuries
- Pre-/post-surgery treatment
- Re-injuries
- Shin splints and sore muscles
- sprains / strains
- Tendonitis
- Torn ligaments

WRIST / HAND

- Carpal tunnel syndrome
- DeQuervain's tenosynovitis
- Wrist fracture
- Digit fractures
- Neuropathies
- Custom splinting
- Rheumatoid arthritis

ELBOW

- Lateral Epicondylitis
- Medial Epicondylitis
- Tendonitis
- Fractures
- Scar management
- Tennis elbow

HIP

- Total hip replacement
- Trochanteric bursitis
- Iliotibial band injuries

KNEE

- ACL reconstruction
- Patella femoral syndrome
- Total knee replacement
- Arthroscopic surgery
- Amputation

FOOT AND ANKLE

- Sprain / strain
- Plantar fasciitis
- Foot fractures
- Heel spurs
- Reconstruction
- Ankle fusion

Continued from front

knee and can be seen in association with ligamentous knee injuries. High ankle sprains are seen more often in hockey due to design of the skate. Foot fractures can occur due to impact with the puck or boards.

The **UPPER EXTREMITY** is the most common site of injuries in hockey. Sprains at the joints between either end of the collarbone are common in hockey and may cause pain, swelling and deformity. Clavicle or collarbone fractures are also commonly associated with deformity, pain and swelling over the middle of the collarbone. These injuries are caused by a fall on the shoulder or check into the boards. Shoulder dislocations are seen more commonly in older players and may be due to falls on the ice or collisions. Fractures to the hand and wrist can be caused by slashing contact from the stick or falls on the ice. Injuries to the ligaments of the thumb can be caused by a fall on the ice with the stick in the hand forcing the thumb away from the hand. Called skiers thumb or gamekeeper thumb, these injuries can lead to chronic instability in gripping and pinching motions.

TRUNK. Injuries to the chest or abdomen can lead to several serious medical problems including lacerations or bruising of the spleen, kidney or lung contusion.

Non-Traumatic Injuries

Irritation of the tendons on the top of the foot from tight laces or ill fitting skates can cause inflammation—a problem often called “lace bite.” Skin irritation and rash or dermatitis is commonly seen and caused by mechanical, bacterial and accumulated moisture from sweating. Sportsman's hernia can be seen with chronic groin strains and involves injuries to the lower abdominal muscles. Tendonitis of the wrist can occur from frequent repetitive stick motions.

Injury Prevention

Although hockey has many unique features predisposing to injury and a popular image as a rough, dangerous sport, the data shows it is safer than most other commonly accepted non-contact sports. Prolonged skill development, appropriate competitive groupings, adherence to the rules and recommended protective equipment is crucial to fostering a safe state of hockey play.

For more information regarding our services or programs, call the Marquette General Rehabilitation Center at 1-800-562-9753 x3186 or 906-225-3186, or visit www.mgh.org

