

ICE HOCKEY INJURIES



FACTS

- Ice Hockey is one of Canada's most popular sports, with over 520,000 players registered in the Canadian Hockey Association (CHA) for the 2000-2001 season
- Ice hockey is classified as a "collision sport" by the American Academy of Pediatrics. Because collisions may occur at high speeds, participants are at risk for serious injury

The goalie is the most well protected player on the ice, typically wearing about 50 lbs of protective gear – who wouldn't want that much padding when pucks can reach velocities of 80 km/hr in pee wee hockey and up to 192 km/hr in pro leagues!

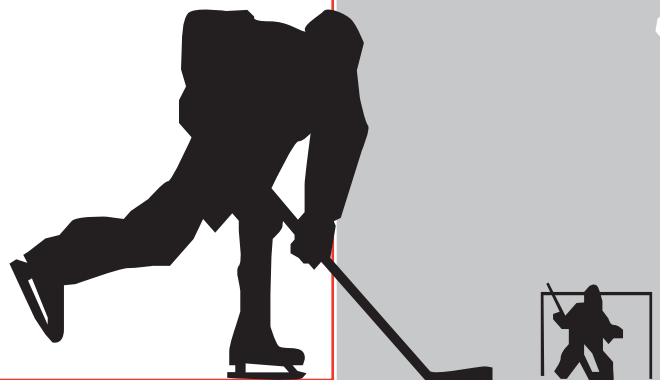
INJURY STATISTICS

- For children & youth, ice hockey injuries ranked 3rd, after basketball and soccer, in emergency room visits related to sport and recreational activities
- In measures of injury severity, ice hockey ranked 4th for frequency of hospitalization
- In examining hockey-related injuries, the pediatric emergency room physician attends most often to males, 10-14 years of age
- A 1999 study of head injuries treated in the emergency room found that 18% of sport-related injuries occurred while playing hockey, while 1 in 5 of these (21%) were head injuries
- Hockey players 15-19 years old had the highest number of head injuries

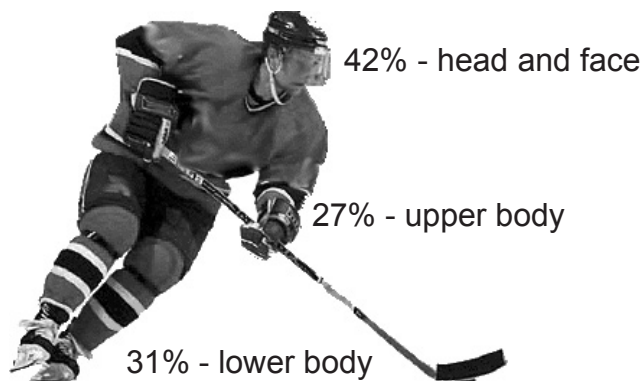
A body check that leads to "contact" with an object or another player is one of the most important risk factors for either inflicting or receiving an injury in ice hockey.

WHEN DO INJURIES OCCUR?

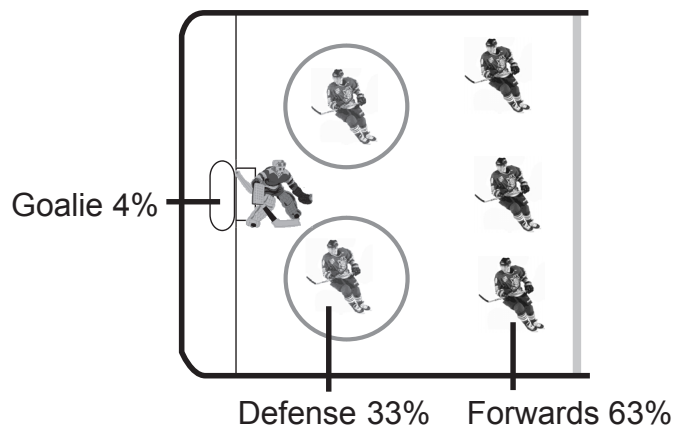
- A cross analysis of 15 hockey injury studies indicates that injuries occur more often during games than practices
- Exhibition and preseason games have roughly 3 times as many injuries as league and post-season games
- Injuries occur in the later periods and in the later minutes of each period; studies recorded 42% of injuries were sustained during the 3rd period and 47% of injuries were sustained in the final 5 minutes of each period



Where do injuries most often occur?

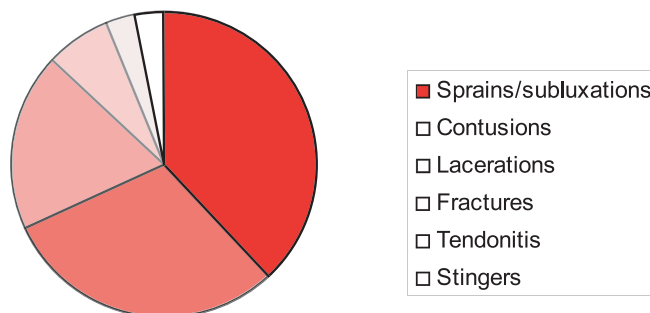


Who gets injured?



What are the most common injuries?

(Junior A stats, 16-20 yrs)



FACTS TO KEEP IN MIND.....

Contact vs. Non-contact:

- There are 4 times as many reported injuries in contact versus non-contact leagues
- The body check is one of the most commonly reported causes of both soft tissue and severe trauma injuries (42%), followed by contact with a hockey stick (16%)
- A study on youth hockey players (9-15 yrs) showed that body checking accounted for 86% of game-time injuries, 23% of these were head or neck injuries
- Another study, comparing pee-wee level leagues (12-13 yrs), found that players in the league that allowed body checking had a fracture rate 12 times higher than the players in the league without body checking

Half visor vs. full face shield:

- No blinding eye injury has been recorded for a player wearing a CSA full face protector
- However, studies have reported that 8 blinded eyes have occurred with a half visor

Coaches and officials:

- Ensure coaches are certified and qualified to teach players to be aware of injurious situations
- Ensure officials are certified and qualified to strictly enforce the rules that predispose individuals to injuries (high sticking, checking from behind, fighting)*
- Support continuing education for coaches and officials to be informed of new strategies to prevent injury

Physical conditioning:

- In an NHL training camp study, players with low level off-season sport-specific training (less than 3 times/wk) were at 3 times greater risk for injury than their more fit team mates
- Higher injury rates in the later periods of games and in the later minutes of each period indicate that fatigue plays a role in increasing the risk of injury
- Overall, injury occurrence patterns point out the need for proper physical conditioning during the preseason and maintenance during the regular season
- Make sure your hockey program is well rounded and includes strength, flexibility and endurance training
- Regardless of the level of physical conditioning, players require a proper warm-up to help prepare the body for increased physical demands and to help prevent injuries

Protective Gear Works!

- Helmets and face shields are proven to significantly reduce head and face injuries, while mouth guards are proven to prevent dental injuries
- Injuries may still occur if equipment is used improperly. Helmets **MUST** have a proper fit and be fastened securely with no more than a two finger breadth between neck and chinstrap
- Protective gear works, but it does not make a player invincible! While a helmet and visor will protect the head and face, the neck and spinal cord are still prone to serious injury from hard hits or falls
- Hockey equipment should be CSA approved to ensure that safety standards are met
- Helmets and face masks should be mandatory and players should not be allowed to play unless wearing **ALL** their protective gear and wearing it **CORRECTLY!***
- Use your safety sense! Encourage others to play safe by setting a good example on and off the ice

** Supported by extensive review of research on sports injury prevention strategies (BCIRPU, CHEO, 2000)*

How do you feel about “Fair Play”?

- The Fair Play System, which has been used in the U.S. and Canada, is an innovative and unique strategy to improve sportsmanship and injury reduction in youth hockey
- By rewarding teams and individual players with low penalties and punishing those with high penalties, the system decreases penalties, intimidation and violence during hockey games and creates a climate that promotes fun and player development*
- In a test trial during a youth hockey tournament (16-20 yrs), qualifying games using the fair play rules had an injury rate 4 times lower than qualifying games using regular rules. The injury rate doubled during the championship round when regular rules were used
- The BC Amateur Hockey Association has implemented a game and conduct management initiative called the *Team First Program*. This program embraces the positive social values of Fair Play by promoting integrity, respect, and fairness among all those involved in hockey.
- Talk to others about using the *Fair Play System* or *Team First Program* in your hockey organization!

Ice hockey is an action packed sport, making it exciting but also dangerous. By **following injury prevention tips** and **exercising fair play**, hockey can be safer and more fun for everyone!

For further information on how you can prevent injuries, contact your local health unit, the BC Injury Research and Prevention Unit or the BC Amateur Hockey Association.

REFERENCES:

1. Committee on Sports Medicine & Fitness. Safety in Youth Ice Hockey: The Effects of Body Checking. *Pediatrics* 105(3):657-659, 2000.
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3. Daly PJ, Sim F, Soimonet W. Ice Hockey Injuries: A Review. *Sports Medicine* 10(3):122-131, 1990.
4. Pinto M, Kuhn JE, Greenfield M et al. Prospective Analysis of Ice Hockey Injuries at the Junior A Level over the Course of One Season. *Clin J Sport Med* 9:70-74, 1999.
5. Sport & Recreation Injury Prevention Strategies: Systematic Review and Best Practices. BC Injury Research & Prevention Unit, Children’s Hospital of Eastern Ontario, 2000.

B.C. *Injury* Research

A N D • P R E V E N T I O N • U N I T

The British Columbia Injury Research and Prevention Unit (BCIRPU) is committed to meeting the challenge of making BC a safe place to live and work by coordinating efforts that will prevent or reduce injuries, their consequences, and costs.

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PROMOTE SAFETY!
Support your officials! Stricter enforcement of existing rules has led to a reduction in specific ice hockey injuries.

For more ice hockey safety tips and injury prevention techniques, please visit the Canadian Hockey Association website at: www.canadianhockey.ca

To find out more about the Team First Program, please visit the BC Amateur Hockey Association website at: www.bcaha.org

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