



STAYING HEALTHY

Hockey Injury Prevention

Ice hockey is one of the fastest growing organized sports in the United States. USA Hockey, the nation's governing body for the sport, states that a record number of children have played hockey through its organization in recent years. Both boys and girls play ice hockey, with opportunities for girls increasing every year.

Before playing hockey, participants must have mastered basic skating skills (such as skating forward and backward).

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Team Play

Youth hockey is usually divided into two types of teams: travel and in-house. The in-house program is often sponsored by the home ice rink and is designed for teaching fundamental skills. These generally include puck handling, game rules, power skating techniques, and basic plays. More advanced players typically move on to travel teams. These teams will travel to other towns to play other travel teams. The play of these teams is usually more advanced.

Common Hockey Injuries

Because of the contact nature of ice hockey, it is considered a collision sport. Injuries occur from contact with other players, the stick, the puck, and the boards. Sprained ankles and knee ligament tears are common. The medial collateral ligament at the inside of the knee can be overstretched from a blow to the outside of the knee. A fall on the ice or check from another player can result in a wrist fracture or shoulder dislocation. Other serious injuries may include concussions, broken teeth, and spine or spinal cord injuries.

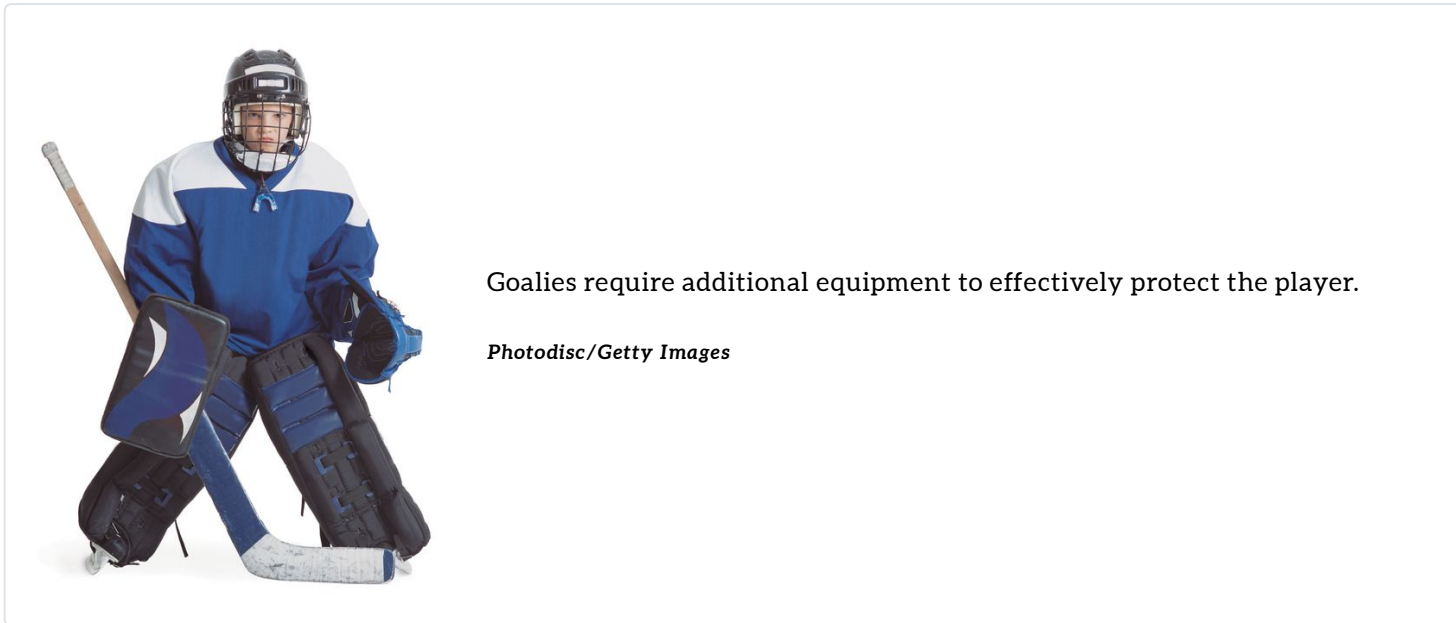
Non-contact injuries may occur from overuse, such as lower back strains caused by the frequent forward flexion required during skating. Muscle pulls, especially of the hamstring and groin, are often caused by muscle overload during a forceful push into a skating sprint.

Several strategies can help prevent hockey injuries – from preparation and safety equipment to skill development and rule enforcement.

Ensure Proper Equipment

Ice hockey requires a lot of protective equipment, and it must fit properly to effectively protect the player. The necessary equipment includes:

- Helmet
- Mouth guard (either custom-made or "boil and bite" off the shelf)
- Face shield
- Shoulder pads
- Elbow pads
- Gloves
- Jersey
- Pants (girdle and shell)
- Cup/supporter
- Shin guards
- Skates
- Stick



Goalies require additional equipment to effectively protect the player.

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Goalies require additional equipment:

- Leg pads
- Catch glove
- Blocker
- Chest and arm protector
- Helmet with face mask
- Goalie skates
- Goalie stick

Hockey equipment can be expensive. Good used equipment can often be found, but make sure it fits appropriately and is not damaged.

Proper Preparation for Play

Before taking to the ice to play hockey, participants must have mastered basic skating skills (such as skating forward and backward). Most ice rinks offer pre-hockey skating classes to teach skating fundamentals. These classes are available at all age levels.

Tips for proper preparation at the team play level include:

- **Maintain fitness.** Be sure you are in good physical condition at the start of hockey season. During the off-season, stick to a balanced fitness program that incorporates aerobic exercise, strength training, and flexibility. If you are out of shape at the start of the season, gradually increase your activity level and slowly build back up to a higher fitness level.

- **Warm up and stretch.** Always take time to warm up and stretch, especially your shoulders, hips, knees, thighs and calves. Research studies have shown that cold muscles are more prone to injury. Warm up off the ice with jumping jacks, stationary cycling, or running or walking in place for 3 to 5 minutes. On the ice, skate at a lower intensity for 3 to 5 minutes. Dynamic stretches, such as arm circles, leg swings, and torso twists can also help prepare your body for activity.
- **Cool down and stretch.** Stretching at the end of practice is too often neglected because of busy schedules. Stretching can help reduce muscle soreness and keep muscles long and flexible. Slowly and gently stretch after activity, holding each stretch for 30 seconds.
- **Hydrate.** Even mild levels of dehydration can hurt athletic performance. If you have not had enough fluids, your body will not be able to effectively cool itself through sweat and evaporation. A general recommendation is to drink 24 ounces of non-caffeinated fluid 2 hours before exercise. Drinking an additional 8 ounces of water or sports drink right before exercise is also helpful. While you are exercising, break for an 8 oz. cup of water every 20 minutes.

Prepare for Injuries

- Coaches should be knowledgeable about first aid and be able to administer it for minor injuries, such as facial cuts, bruises, or minor strains and sprains.
- Be prepared for emergencies. All coaches should have a plan to reach medical personnel for help with more significant injuries such as concussions, dislocations, contusions, sprains, abrasions, and fractures.

Safe Return to Play

An injured player's symptoms must be completely gone before returning to play. For example:

- In case of a joint problem, the player must have no pain, no swelling, full range of motion, and normal strength.
- In case of concussion, the player must have no symptoms at rest or with exercise, and should be cleared by the appropriate medical provider.

Prevent Overuse Injuries

Because many young athletes are focusing on just one sport and are training year-round, doctors are seeing an increase in overuse injuries. The American Academy of Orthopaedic Surgeons has partnered with [STOP Sports Injuries](http://www.stopsportsinjuries.org/) (<http://www.stopsportsinjuries.org/>) to help educate parents, coaches, and athletes about how to prevent overuse injuries. Specific tips to prevent overuse injuries include:

- Limit the number of teams in which your child is playing in one season. Kids who play on more than one team are especially at risk for overuse injuries.

- Do not allow your child to play one sport year round – taking regular breaks and playing other sports is essential to skill development and injury prevention.

Additional Guidelines

In an effort to reduce hockey injuries, researchers have conducted studies to better understand the risks of play. Rule changes and better enforcement of existing rules, along with improved protective equipment, are some of the outcomes of this research. In addition, educating coaches and officials about injury risks has become a priority. Potentially dangerous actions, such as checking from behind and the using the stick or helmet as a weapon, have been eliminated from the game.

Coaches, athletes, and parents must be aware of the possible injuries and follow the rules in place to prevent them. Serious injuries can be avoided if players avoid dangerous tactics or overly aggressive play.

For more information on ice hockey, go to [USA Hockey, Inc.\(http://www.usahockey.com/\)](http://www.usahockey.com/) Founded in 1936-37, USA Hockey is the national governing body for the sport in the United States. Its mission is to promote the growth of hockey in America, and provide the best possible experience for all participants by encouraging, developing, advancing, and administrating the sport.

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