

Ice Hockey

Ice hockey is one of the fastest sports and requires good physical conditioning and skating skills. It is a team sport played from the ages of 5 to 6 years through adulthood.

The severity of injuries is related to speed and physical contact (body checking). In the United States, body checking is allowed in league hockey at the age of 11 to 12 years, although the age can be younger in some leagues.

As player size and the speed of the game increase, injury rates and the severity of injury also rise. However, the risk of injuries can be reduced.

The following is information from the American Academy of Pediatrics (AAP) about how to prevent ice hockey injuries. Also included is an overview of common ice hockey injuries.

Injury prevention and safety tips

- **Equipment.** Safety gear should fit properly and be well maintained.
 - **Skates** should fit well with socks on. Skates that are too tight can lead to blisters and frostbite.
 - **Pads.** Elbow, knee, and shoulder pads that fit properly and allow for full movement. Kidney- and thigh-padded shorts that overlap protective socks and shin guards so no skin is showing. Padded hockey gloves to protect the fingers and wrists from stick slashing and sharp skates.
 - **Protective guards** (neck guards, protective cups, and mouth guards)
 - **Helmets with face guards** approved by the Hockey Equipment Certification Council (HECC). Cracked helmets or helmets with outdated HECC certificates should not be used.
 - **Goalie equipment** is even more specialized, with a different helmet and mask, thicker padding, and skates with longer, thicker blades for stability and reinforcement along the inner foot for protection from pucks and sticks.
- **Equipment care.** Dirty hockey equipment can lead to skin infections, especially where the hockey gear touches the skin directly. The “infamous” hockey bag smell is due to the growth of bacteria and other germs. Almost all equipment can be washed in a commercial washing machine. Helmets and face masks can be disinfected with antibacterial wipes, and the inside of leather gloves and gear bags can be cleaned with spray cleaners. Mouth guards should be washed after each use.

Many rinks have special “dry” cleaning machines that disinfect an entire bag of gear. To decrease the growth of germs, gear should be taken out of the bag after every practice or game, and the bag and gear dried out completely before repacking.

- **Environment.** Only walk or skate on a pond or natural body of water that has received safe ice approval from local officials. Also, goal net posts should be easily removed so they are not dangerous obstacles during fast play.
- **Emergency plan.** Hockey programs can organize and train a team to respond to injuries during games, as it is rare to stop play while players are treated off the ice. The plan would include first aid and emergency contact information. All members of the team should receive a written copy each season. Parents also should be familiar with the plan and review it with their children.

Special concerns

Dehydration

There is a common misconception that athletes who play in cold weather do not need to drink as much as those playing in warm weather. In fact, hockey players training in cold environments wear more clothing and may be unaware they are losing body moisture. Dehydrated athletes often perform poorly in multiple game situations like tournaments and during the last period of a game.

Hydration should take place before, during, and after games and practices. In general, athletes should drink 5 to 8 ounces of water or an appropriate sports drink every 20 minutes, even if they do not feel thirsty. Players not responding well, unable to drink, or with difficulty breathing may need emergency medical attention.

Exercise-induced asthma

- Exercise-induced asthma is prevalent in hockey players who are prone to asthma because hockey is played in cold weather under dry conditions. Skaters should have a personal asthma action plan. Asthmatic skaters can prevent episodes by taking their medicines and using an inhaler before practices or games. Inhalers and spacers should always be on hand during activity. Skaters should stop skating and see a doctor if they have difficulty breathing while skating.

Frostbite

Cold weather, wet clothing, and tight-fitting skates can lead to poor circulation and frostbite. Early signs of frostbite are pale or white skin with numbness and tingling of the exposed body part. It is important to dress in layers and wear wicking, fast-drying wool or polypropylene underwear and socks. Cotton clothing is not warm when wet and can contribute to frostbite and hypothermia by lowering the body temperature. Treat frostbite by increasing circulation and warming cold body parts in a heated room or under the clothes. Change wet clothing often.

Common injuries

Head injuries

Concussions in hockey most often occur from a blow to the head, from falls, or from being checked into the boards. A concussion is any injury to the brain that disrupts normal brain function on a temporary or permanent basis.

The signs and symptoms of a concussion range from subtle to obvious and usually happen right after the injury but may take hours to days to show up. Athletes who have had concussions may report feeling normal before their brain has fully recovered. With most concussions, the player is *not* knocked out or unconscious.

Prematurely returning to play after a concussion can lead to another concussion or even death. An athlete with a history of concussion may be more susceptible to another injury than an athlete with no history of concussion.

All concussions are serious, and all athletes with suspected concussions should not return to play until they see a doctor.

Youth hockey programs in the United States and Canada have active head injury prevention programs for athletes and coaches. Safe play and properly fitting helmets can prevent concussions, as does striking the boards at an angle with the head up when a collision can't be avoided.

Arm and leg injuries

Injuries of the extremities should be treated with rest, ice, compression, and elevation (RICE). Nonsteroidal anti-inflammatory drugs (NSAIDs) may help reduce pain and swelling, but should be taken with food. Injured athletes should see their doctor if they have pain while playing.

- **Upper extremity injuries of the shoulder, arm, and wrist** occur during falls or from being checked into the boards. Shoulder dislocations are very painful until put back into place. Persistent wrist or arm pain after

a fall can signify a broken bone (even if there is no visible swelling or deformity) and should be iced and immobilized until it can be treated by a doctor.

- **Groin strains** are pulled or torn muscles or tendons of the inner thigh. Hockey players and goalies doing forced push offs or slides on skates may get this injury. Treatments that may help are ice, NSAIDs, thigh wraps, physical therapy, and modification of activity. Groin strains can be prevented by warming up properly and doing muscle stretching as a part of team practices and games.
- **Knee injuries** are more common in hockey than ankle injuries because the ankle and Achilles tendon are protected by a stiff boot. Knee injuries happen when the knee is forced or twisted to the side or back. If a ligament or cartilage is torn, a pop may be felt or heard, followed by visible swelling around the knee.
- **Overuse injuries**, such as Osgood-Schlatter disease (irritation of the growth plate causing a painful bony bump below the knee), occur in 10- to 15-year-olds who play active sports with running, jumping, or skating. In hockey, a combination of off-ice training, overtraining, and frequent practices and games may lead to Osgood-Schlatter, thus limiting or changing activity may help.

Eye injuries

In the past, blows from hockey sticks and flying pucks caused many eye injuries. Now helmets with face masks have decreased the number of eye injuries, but they still can occur. Any injury that affects vision or is associated with swelling or blood inside the eye should be evaluated by an ophthalmologist. The AAP recommends that children involved in organized sports wear appropriate protective eyewear.

Remember

Ice hockey injuries can be prevented by treating injuries appropriately, wearing protective equipment including helmet and face guards, following the rules of the game, and practicing good sportsmanship.

NOTES

The information contained in this publication should not be used as a substitute for the medical care and advice of your health care professional. There may be variations in treatment that your health care professional may recommend based on individual facts and circumstances.

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