



# SAFETY AND RISK MANAGEMENT

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The coach will normally be the first person to the scene of the accident and must be prepared for emergency situations.

This chapter will identify the major areas important in the prevention of injury to players. By implementing an injury prevention program for your players, you can ensure that every effort is made to reduce the chances of accidental injury. However, due to the fast moving nature of the game and inevitable contact of the player's body with the ice, boards, sticks, or opponents, some injuries will still occur. It is not possible to eliminate all injuries; however, by careful planning, preparation and knowledgeable care of the injured player, the coach can minimize the risk of serious injury.

### Chapter Overview :

- institute emergency planning
- develop an effective injury prevention program
- ensure safety in practice
- evaluate players equipment
- prepare medical history records

### General Guidelines in Developing an Injury Prevention Program

Prior to and during the season, the following guidelines should be reviewed and referred to:

- Encourage proper physical conditioning and strength building. Particular attention should be paid to the following muscle groups: quadriceps, biceps, shoulders, chest, and waist.
- Properly instruct your players in the technical skills and rules of the game.
- Reinforce with other coaches in your league stricter application of the rules by referees to promote the safety of the players.
- Be sure that equipment is adequate and is properly fitted to the players.
- Know how to recognize minor injuries (e.g., strains, sprains, cuts) that can be complicated by continued participation and develop into more serious injuries. Know the proper first aid procedures and have a well stocked first aid kit.
- Teach your players the proper methods of taking a body check, falling, making impact with the boards, and, where permitted within the rules, giving body checks.
- Ensure that, following an injury, effective treatment is carried out and the athlete is properly rehabilitated before allowed to return to competition.
- To minimize the risk of re-injury and maximize the effectiveness of the player, reconditioning should be undertaken.

- Initial return to competition should be phased in using short shifts and graduated, controlled return to full play. Gradual return to competition is of greatest importance where injuries to large muscle groups (e.g., upper legs) or joints of the body have occurred.
- Following each game and practice, players should be encouraged to stretch. This will significantly reduce the possibility of muscle cramping and post exercise soreness.

## Emergency Planning

The number of times you will be confronted with a life threatening injury will be very few indeed, if ever at all. However, you must be prepared for the possibility, as the potential is always there.

Have an emergency plan in place. Make your instructions clear, concise and calm so as to be properly understood by other members of the management team, your players, and/or arena staff. An emergency plan should only be put into effect in case of a severe injury, such as major bleeding or a spinal injury. The following information is essential to any emergency plan:

- location of nearest hospital to the arena,
- emergency phone numbers (ambulance, hospital),
- action plan and responsibilities in case of life threatening injury.

In the case of a critical injury (e.g., cut artery or jugular vein) every second counts; time can be the difference between life and death. The prime responsibility of the coach (or trainer) is the direct and immediate care of the injured player. By pre-planning, time will be used most efficiently should an emergency occur. Pre-planning will include the following:

- A working knowledge of Emergency First Aid.
- Coach (or trainer) immediately attends to the injury.

If the injury is obviously severe (e.g., suspected spinal injury) a designated person immediately uses the nearest available phone to call an ambulance. The individual must know the number of an ambulance service and all telephone locations in the arena. Always have change for the pay phone). Indicate the NATURE of the INJURY, LOCATION of the ARENA and the ENTRANCE to be used

Arena staff should keep spectators away from the accident area. Have someone outside to watch for the arrival of the ambulance and direct attendants to the accident scene.

Manager or assistant coach should stand by at the scene to assist the coach and/ or trainer as required.

## Physical Assessment and Medical History

### Medical Examination

Most children routinely receive an annual medical check-up by their family physician. This check-up is usually done just prior to the commencement of school and usually coincidental with the start of the hockey season. As children are involved in athletics in most school programs, family physicians are often called upon to evaluate the physical suitability of an individual to participate in the athletic programs.

## **Key Points:**

- *When annual check-ups do not coincide with the start of the hockey season, parents should be encouraged to have the family physician examine the player and certify the athlete as being physically fit and able to participate in a body contact sport.*
- *Until the major growing phase has subsided (usually around age 16 or 17), particular attention must be paid to any injuries to the joints (especially knees and shoulders).*
- *Where possible, have a Sport Medicine practitioner examine an injured player.*
- *Vision and hearing should be checked. Any abnormalities or changes in normal patterns that may be noted by the coach during games, practices, or in dressing room talks, should be reported immediately to the parents, who in turn should seek medical advice.*
- *Have any player receiving an injury or severe blow to the head examined by a medical practitioner. Development of symptoms which may include a change in normal vision, hearing, mood, or speech are serious outward signs which indicate the NEED for immediate medical attention.*
- *A standard file should be used for recording information obtained from an examination.*

## **Completing a Medical History File**

### **Previous Injuries**

#### **Key Points:**

- *Previous injury (that may not have been reported) may predispose a player to a more serious injury, or may cloud the results of a medical examination.*
- *Previous injuries such as the head, fractures, joint injuries, and operations, should be reported and recorded on the player's MEDICAL HISTORY FILE. Such information may be passed on to medical authorities should the need arise.*

### **Important Information**

Some information is of vital importance and must always be relayed to examining medical authorities at the time of injury or sickness. The coaching staff must be fully aware of the presence of any of the following conditions:

- drug allergies, (e.g., penicillin, sulpha),
- diabetes (notation should be made whether this is diet controlled or insulin controlled),
- epilepsy,
- food allergies,
- regular medication use,

- emergency medication use,
- any other particular information of emergency medical importance.

## General Information

Other additional information to be included on a player's medical file should be:

- height, weight,
- emergency contact number(s) of parents/guardian,
- name and phone number of family doctor,
- information on injuries sustained throughout the current playing season.

This general information should be kept current. Notes or letters from parents or physicians with regard to permission to return to play following an injury (or restrictions on play) should be retained.

When travelling out of town the players' medical information files should be taken with the team. In case of emergency, the medical information on the particular player should be presented to the local emergency medical facility or attending physician.

The following is an example of a Medical History Card incorporating the various guidelines outlined in this section.

## MEDICAL HISTORY CARD

Player \_\_\_\_\_ Age \_\_\_\_\_ Date of Birth \_\_\_\_\_

Address \_\_\_\_\_

Parent's Name \_\_\_\_\_ Phone (Bus) \_\_\_\_\_ (Res) \_\_\_\_\_

Medical Insurance Number \_\_\_\_\_ Team \_\_\_\_\_

Coach \_\_\_\_\_ Family Dr. \_\_\_\_\_ Phone (Bus) \_\_\_\_\_

Significant medical conditions (e.g., epilepsy, diabetes; orthopaedic problems; dangerous allergies)

\_\_\_\_\_

Head, back, joint injuries (in the past two years)

\_\_\_\_\_

Medications taken regularly (excluding vitamins)

\_\_\_\_\_

Last tetanus booster (check one)

Less than 3 yrs. \_\_\_\_\_ 3-5 yrs. \_\_\_\_\_ More than 5 yrs. \_\_\_\_\_

Parent's Signature \_\_\_\_\_



DATE	MECHANISM	INJURY	CARE	HOSP/DR
Dr. Report			Return to play date	
Dr. Report			Return to play date	
Dr. Report			Return to play date	
Dr. Report			Return to play date	

### Safety in the Practice

At the beginning of the season and before each ice session, check the playing area and the players to prevent any potential hazardous situations from arising.

#### Playing Area

- Ice surface is free of debris, dangerous ruts, or bare spots.
- No protrusions from the boards, glass, or screen.
- Supporting struts for glass or upright posts for fencing should be padded.
- When the goal has been removed from its moorings, ensure that there are no pegs protruding from the ice.
- Check the players bench area to make sure there is no refuse on the floor that may become stuck on the blades of players skates (e.g., tape).
- The entire arena lighting system (over the playing surface) should be turned on. Always practice in similar lighting conditions to those which exist for games.
- Make sure all doors are properly closed.

## Players

- Ensure that players are in full protective equipment including approved helmet and face mask for all games and practices.
- Players who are required to wear face masks during competition must also be required to wear face masks during practice.
- Prepare the players for practice and games with a proper stretching and warm-up routine.
- Avoid the use of dangerous drills and situations in a practice (e.g., having players behind the net during shooting drills).

## Proper Fitting, Quality and Maintenance of Equipment

The coach and players should evaluate the players equipment in three primary areas:

- Proper fitting of the equipment,
- Protective quality and state of repair of each piece of equipment,
- 
- Maintenance of each piece of equipment (including drying, cleaning, and storing).

### *Proper Fitting of Equipment*

#### **Key Points:**

- *Does the piece of equipment completely cover the area that it is supposed to protect?*
- *When fully dressed, is adequate protection offered to the player by the equipment being worn?*
- *Does the helmet fit properly? If the helmet is too loose it may shift, and if it is too tight it may cause discomfort.*
- *Are the screws in the helmet properly adjusted and tightened?*
- *Is the face mask properly secured? Only certified helmets and face masks may be worn.*
- *Does the hockey pant padding properly protect the kidneys, hips, front, thighs, and tail bone?*
- *Are the athletic support and cup properly positioned and of the proper size to fit the player?*

## Protective Quality

The primary function of protective equipment is to absorb the shock of impact and distribute force across a wide area, thereby minimizing shock transmitted to the player's body. If padding cannot effectively reduce and disperse such shock, then the equipment should not be considered safe and should be replaced. It is sometimes difficult to suggest to a parent that equipment does not fit the player or does not provide adequate protective quality. Point out to the parent the potential risk of injury to the child as a result of continued use of such inadequate equipment.

The following are guidelines to examining the protective quality of each piece of equipment.

- Any crack or break in the main structural surfaces of any piece of equipment, such as shin pads or helmets, render those pieces of equipment ineffective and they should be discarded.
- Cracks or tears in other areas of the equipment, such as in gloves or the surface of elbow pads, should be repaired before the damage to the equipment becomes more severe and reduces the protective quality.
- Examine the padding inside the equipment. If the foam rubber padding has become brittle through perspiration saturation or age, the protective quality of that equipment has been seriously compromised. The shock absorbing qualities are no longer there. The padding itself or the entire piece of equipment should be replaced.
- Helmet padding that has fallen out or has become unstuck should only be replaced with padding designed for that helmet and should be secured only by glue provided by the manufacturer.

## Maintenance

### Key Points:

- *After a game or practice, the equipment should be immediately hung up to dry. Leather should not be placed over any source of direct heat as forced drying will cause cracking.*
- *After every game or practice wipe off the skate blades and holders until they are completely dry (to prevent rust).*
- *Leave skates unlaced, with the tongues pulled down so that air can circulate inside and evaporate moisture. With most plastic skates the liners are removable and should be taken out to dry.*
- *Check your blades for: sharpness – a sharp skate will plane a fine white shaving off the thumbnail; nicks – sometimes a nick in the blade can be removed with a small wet stone; bends – a bent or loose blade can often be detected by the squeaking noise it will make when gliding to a stop. Most skate sharpeners have a device for straightening blades.*
- *Make regular checks after each use to see that the rivets which attach the blade holders to the boot are secure.*

- *All equipment should be visually inspected at regular intervals. In most cases, a shoemaker can repair fabric tears or do patch stitching. In the case of cracked padding or plastic, a replacement part can usually be purchased.*

## **Purchasing Tips:**

### **Jock Strap (athletic support)**

- Fitted according to waist size. It should fit snugly but not so tight as to be uncomfortable. The protective cups come in men's and boy's sizes.

### **Jill Strap**

- Fitted according to waist size.

### **Shin Pads**

- Shin pads that are too big can slide out of position and reduce protection. They may also interfere with proper ankle and knee flexion.
- Shin pads, when too small, leave the lower shin area exposed and do not provide sufficient protection on the sides of the knee.

### **Pants**

- Pants must protect the front and side of the thigh, tail bone, hip and kidney area. Unless they are properly fitted, they will not provide this protection.

### **Girdles**

- Designed to fit snugly to the body.
- Padding must protect all areas noted above (pants).
- Girdle should not shift around when the player walks.
- Bottom of girdle legs should touch top of knee cap when standing straight.

### **Shoulder Pads**

- Protect many areas: the shoulder joint, collar bone, upper chest and back, and upper arms.
- For female players, a combination shoulder and chest protector combines shoulder pads with extra protection in the chest area.

### **Sports Bra**

- Female athletes should wear a sports bra when participating in vigorous activity. Sized by chest width and cup size as with regular bra.



## Elbow Pads

- Protect the entire elbow joint as well as parts of the upper arm and forearm.
- A properly fitted elbow pad has the elbow joint resting firmly in the cup.
- The donut shaped pad should suspend and protect the point of the elbow. The elastic should be snug but comfortable.

## Helmet

- All players must wear a hockey helmet that meets approved international standards.
- A correctly fitted hockey helmet protects the entire skull, but specifically the forehead, temples, ear area, and base of the skull.
- Never paint a helmet as the chemical reaction may change the molecular structure and weaken the helmet.

## Mouth Guard

Many dental associations recommend that players wear an internal mouth guard in addition to the protection offered by the face mask. Use of an internal mouth guard reduces the risk of a brain concussion (from a blow to the jaw) and minimizes chances of chipped teeth should the lower jaw be struck.

- The internal mouth guard is moulded to the individual's teeth and gumline.
- Superior protection is offered by those mouth guards fitted by a dental practitioner.

## Face Mask

All face masks and visors must meet approved international standards.

- Never cut out wire (to improve field of vision), as the entire structure is dangerously weakened and the mask subsequently loses its approved international standard.
- Regular inspection of the face mask is essential. Is the wire structure solid? Are there scratches or cracks in the plastic?

## Gloves

- Properly fitted gloves must be snug, but not tight.
- Palms should be soft and pliable so that the player can grip the stick easily and be sensitive to the feel of the puck on the blade.
- Padding on the back of the glove and in the thumb area should absorb shock. Compression should not be felt inside the glove when the back of the glove is pushed with the fingers.

## Skates

As well as being a functional necessity of the game, skates also provide protection for the foot and the Achilles tendon. Improperly fitted skates make it impossible for a player to develop effective skating skills.

Skate boots are manufactured in three basic styles:

- leather
- plastic (moulded)
- nylon

The following steps are recommended in selecting the proper skate size:

### Sewn Boot (leather or nylon)

- Try on the skates wearing socks similar to those worn when you play.
- Place foot inside skate and bang heel down to make sure it is positioned correctly in the boot.
- Keep trying sizes until toes press up against the protective toe cap. Then, go back up one-half or one full size.
- A player's skate size is usually smaller than their shoe size.

### Moulded Boot

- Put on a pair of socks similar to the socks you normally wear when playing.
- Remove the inner liner from the skate boot.
- Find the inner liner size that fits the foot so that toes touch the end of the liner.
- These inner liners should almost correspond to shoe size.

Never buy skates too big with the idea of growing into them. When skates are laced up, the eyelets should be about 2-5 cm apart. If they come closer, the boot is too large. If they are wider, a larger boot, or at least a wider one, is required.

Some skates come in different combinations of foot width. These skate boots are recommended for players who have difficulty obtaining a good fit.

Do not wrap laces around the ankle as this could inhibit blood circulation and irritate the Achilles tendon.

## Goalkeeper 's Equipment

- Goalkeeper pads are designed for blocking shots and protecting the front and side of the goalkeeper 's legs.
- Properly fitted goalkeeper pads extend from the toe of the skate to about 10 cm above the knee. The large vertical roll is always on the outside of each leg.
- Goalkeeper pads should always be left standing to prevent flattening the padding and "moulding" as the pads dry out. The straps should be checked regularly for cuts or cracking and replaced as needed. Any cuts in the leather of the pads should be repaired immediately.

- Goalkeeper knee pads afford additional protection when the goalkeeper is in a position the goalkeeper pads do not cover the knee area.
- Goalkeepers should wear the specially designed goalkeeper athletic support and cup because of the extra padding and protection it provides.
- Goalkeeper pants have several additional protective pieces and the padding is heavier than in the regular pants. The inner section which protects the kidney, tail bone, groin, and waist area also is fitted with heavier weight padding and protection.
- The belly pad is designed to protect the collar bone and the entire chest and abdominal areas. Ensure the pants are loose enough around the waist to allow the belly pad to tuck into the pants comfortably.
- The special goalkeeper shoulder and arm pads are designed to protect the shoulder and the arms to the wrists. Many goalkeepers adjust or add padding to their arms and the front of their shoulders to suit their individual preferences. Pads which are too small, not reaching the cuff of the glove, leave the forearm open to injury.
- The catching glove (trapper) has a heavily padded protective cuff which should overlap the protection of the arm pad.
- The blocker is composed of a large protective fibre back pad which should not be warped and therefore exposing the fingers. The glove should be pliable for easy gripping of the stick.

Both gloves are constructed mainly from leather and should be cared for accordingly. Properly fitting gloves allow a goalkeeper better control over the stick when clearing or passing the puck.

- Throat protection is vitally important for the goalkeeper.
- Three types of throat protection are predominantly used:
  - hanging shield – attached to the bottom of the face mask,
  - hinge shield – attached to the helmet,
  - collar – worn around the neck. While the collar does offer greater protection from accidental skate cuts to the throat area, it does not provide as much protection from impact by the puck (shots) or stick as the hinge or hanging shield.

### Sticks

- Ensure there are no breaks or cracks in the shaft or blade.
- The shaft and blade should be smooth with no splinters.
- Sticks with fibreglass overwrap on the shaft should be cut with a hacksaw, when necessary, and taped. Avoid penetration of the skin with fibreglass strands.



## For the Coach

It is the start of a new season. What will you do to plan and implement your injury prevention program?

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