

THINKFIRST SMART HOCKEY

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CANADA

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An injury can happen to anyone.

No one ever thinks they will be injured playing a sport, but even professional hockey players are not immune. Some of those who are considered the most skilled players in the world have suffered from career ending concussions or have had to sit out several weeks in order to let their brains heal.

This booklet, which accompanies the ThinkFirst Smart Hockey Video, was developed for players, their families, team officials and leagues as an educational tool in an effort to help prevent injuries in sport.

The production features John Tavares, Tessa Bonhomme, Patrice Bergeron, Tyler Myers and Caroline Ouellette and is presented by Scotiabank and Reebok-CCM Hockey and made possible through the generosity of The Foster Hewitt Foundation.

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This full Statement can be found at www.thinkfirst.ca - McCrory P, Meeuwisse W, Johnston K, et al. Consensus statement on concussion in sport: the 3rd International Conference on Concussion in Sport held in Zurich, November 2008. Br J Sports Med. 2009; 43(suppl 1):i76-i90.

CONCUSSIONS

This video and booklet are based on the consensus statement of the Third International Conference on Concussion in Sport in 2008.

A concussion is a brain injury that is the result of a hit to the head, neck, face or trunk which causes a temporary loss of mental function. An athlete does not have to be unconscious to have suffered a concussion.

Diagnosis

A concussion is diagnosed by looking at physical, cognitive and emotional signs and symptoms. It cannot be detected through medical imaging such as an X-Ray, MRI or CAT scan.

It is important that as soon a concussion is suspected, the player should be assessed by a doctor, preferably one with experience diagnosing and treating concussions. Signs and symptoms may not appear immediately so it is important to observe the player over several hours.

Signs and Symptoms of Concussions

A player may have any one or more of the following:

- Seizure or convulsions
- Blurred vision
- Balance problems
- Headaches
- Nausea or vomiting
- Dizziness
- Amnesia
- Loss of consciousness
- “Pressure in the head”
- Neck pain
- Difficulty concentrating
- Sensitivity to light or noise
- Feeling stunned or dazed
- Feeling like “in a fog”
- “Don’t feel right”
- Difficulty remembering
- Fatigue or low energy
- Confusion
- More emotional
- Irritable
- Sadness
- Nervous or anxious

When You Suspect a Concussion:

- Remove player from the activity immediately
- Do not return the player to the game or practice that day
- Have the player evaluated by a physician
- Monitor for persistent or escalating symptoms
- If symptoms worsen, have the player reassessed by a doctor
- Follow the 6 Step Return to Play Guidelines with medical supervision

WHEN IN DOUBT, SIT THEM OUT!

If the athlete is unconscious, call an ambulance. Do not move the player or remove any piece of protective equipment unless it is causing difficulty with breathing. Make sure he or she sees a physician as soon as possible.

RETURN TO PLAY

Not every concussion is the same. The symptoms and length of time for healing any brain injury will depend on the individual's age, medical history and severity of concussion. It is important that the concussed player report the progress to the doctor, parents, coaches and team trainer.

When a concussion has been diagnosed, it is essential that the player rest, both physically and mentally, until symptom free. **Each Return to Play Step requires a minimum of one day and an athlete should be symptom free before going to the next level.** This protocol was developed for children over the age of 10; those younger may require special guidelines, and more conservative treatment and care.

6 Return to Play Steps:

1. Rest mentally and physically until symptom free
2. Light activity such as walking or stationary cycling
3. Sport-specific training like skating, running
4. Non-contact training drills
5. Full contact training after medical clearance
6. Return to game play

In Step 1, it is important to fully rest the body and the mind so that the brain can heal. Mental rest means that the individual with a concussion should not be doing anything which requires focus or concentration, which means no computer use, television or video games.

Returning to play while still experiencing symptoms of a concussion is dangerous and can lead to a longer recovery time, more severe symptoms or the Second Impact Syndrome. The Second Impact Syndrome is rare but may occur if a player suffers a second concussion before the first one is healed. In this case the brain may swell inside the skull and in rare instances has resulted in death. Individuals should consult a doctor for further information.

FACE AND EYE INJURIES

Hockey Canada requires all minor and female hockey players to wear Canadian Standards Association (CSA) certified full facial protectors, properly attached to CSA certified hockey helmets. There are three types of facial protectors; full facial protectors with a wire cage, high-impact polycarbonate shield and a combination of both. Yet, pucks or high sticks may still cause eye injuries in hockey, particularly with the visor or half shield. The visor becomes less effective if it is attached improperly or worn tipped back over the forehead with the chinstrap loosely fastened.

SPINAL INJURIES

There has been a significant decrease in spinal cord injuries in the past two decades. This positive outcome is believed to be a result of identifying risk factors linked to these injuries, as well as Hockey Canada rule changes - no checking from behind - and the development and distribution of injury prevention programs such as the ThinkFirst Smart Hockey videos. It is thought that exercising the neck muscles may help in the prevention of spinal injuries and may also help in concussion prevention. The **ThinkFirst Smart Hockey Video** demonstrates several appropriate exercises to strengthen your neck. See **www.thinkfirst.ca** for information on these types of exercises.

Signs and Symptoms of a Spinal Cord Injury:

- Neck or back pain
- Tingling or loss of sensation in arms or legs
- Difficulty breathing
- Weakness in arms or legs
- Unable to move arms or legs

PROTECTIVE EQUIPMENT

Helmets are designed to prevent bruising or tearing in the brain, blood clots in the head and fractures to the skull, but will not protect the brain from a concussion. There is no concussion proof helmet. Even so, they are a very important part of a player's equipment and should fit properly, be kept in good condition (away from skate blades in the bag), and replaced according to manufacturer's specifications. Ensure the helmet is done up snugly so that only one finger fits between the strap and the chin.

The facial shield or cage must be compatible with the helmet. Not all shields fit every helmet. The facial protector should fit to allow one finger to be placed snugly between the bottom of the chin and the chin cup. Any facial protector with a break or crack should be replaced immediately. Never alter wire masks as this weakens the structure and voids the CSA certification. Removal of the chin cup not only voids the CSA certification, it may expose the chin area to other risk of injury. Although the facemask may reduce dental injuries, it is still recommended that anyone playing hockey wear an internal mouth guard.

It is important to note that mouth guards reduce the number of injuries to the mouth and jaw but there is currently no scientific proof that mouth guards prevent concussions.

Hockey Canada regulations also require minor and female players to wear BNQ throat protectors to protect against injuries to the neck and throat like cuts by skate blades.

INJURY PREVENTION TIPS FOR HOCKEY

12 On-Ice Tips from ThinkFirst Canada Let's balance performance with safety!

1. BE A GOOD SKATER
2. KEEP YOUR HEAD UP WHEN HANDLING THE PUCK
3. BE AWARE AND STAY ALERT
4. ALWAYS APPROACH THE BOARDS ON AN ANGLE
5. GET YOUR ARMS UP WHEN GOING INTO THE BOARDS
6. KNOW THE DANGER ZONE: 3-4 FEET FROM THE BOARDS
7. NEVER HIT FROM BEHIND
8. NEVER HIT TO THE HEAD
9. CONTROL YOUR STICK RESPONSIBLY
10. DO NOT MAKE "SUICIDE" PASSES
11. COMMUNICATE WITH YOUR TEAMMATES
12. RESPECT THE SAFETY OF EVERYONE ON THE ICE

RESPECT AND THE RIGHT ATTITUDE

ThinkFirst Smart Hockey encourages respect as a team-building attitude that can also help players prevent injury. Sport is a great place to develop teamwork, leadership and athletic skills. Parents, coaches, trainers and leagues have a responsibility to create a positive environment for players and prevent injuries.

- PLAYERS:**
- respect yourself, others - on and off the ice - and the rules.
- PARENTS & COACHES:**
- focus on positive attitudes and injury prevention.
- TRAINERS:**
- check equipment for safety and fit, detect injuries and advise on injury management.
- REFEREES:**
- enforce rules like no checking from behind and no hits to the head.
- LEAGUE OFFICIALS:**
- develop age appropriate rules and their application for safer hockey.

Always remember that there are FIVE categories of RESPECT:

- Respect for Yourself
- Respect for Team Officials and Referees
- Respect for Teammates
- Respect for Opponents
- Respect for the Game

THINKFIRST SMART HOCKEY ADVISORY GROUP

Our ThinkFirst Smart Hockey Advisory Group includes members of the Concussion Education and Advisory Committee, ThinkFirst Board Members and Staff and Hockey Advisors.

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National Hockey League
National Hockey League Players Association
International Ice Hockey Federation
Hockey Canada

**Visit www.thinkfirst.ca for more information
and to view the ThinkFirst Smart Hockey video.**

ThinkFirst is a national non-profit organization dedicated to the prevention of brain and spinal cord injuries. At the heart of the **ThinkFirst Foundation of Canada** are Chapters that stretch across the country. Founded in 1992, **ThinkFirst** continues to be an injury prevention leader in the development and delivery of educational programs to reduce brain and spinal cord injury in children and youth. We teach children and those who care for them to understand the wonder and fragility of their brains and spines. We encourage Canadians to be active and safe. If you would like to donate to **ThinkFirst Foundation of Canada**, please direct it to our national office.

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