



What is a concussion?

A concussion is a brain injury that cannot be seen on routine X-rays, CT scans, or MRIs. It affects the way you may think and remember things, and can cause a variety of symptoms.

What are the signs and symptoms of a concussion?

You do not need to be knocked out (lose consciousness) to have had a concussion. You might experience one or more of the following:

Cognitive (thinking)	Physical	Emotional/behavioural
<ul style="list-style-type: none">• Do not know the time, date, place, details about a recent activity• Difficulty remembering things that happened before and after the injury• Difficulty concentrating• Not thinking clearly• Feeling like “in a fog”	<ul style="list-style-type: none">• Headache or head pressure• Dizziness• Stomachache, nausea, vomiting• Blank or vacant stare• Blurred or fuzzy vision• Sensitive to light or sound• See stars, flashing lights• Ringing in the ears• Problems with balance or co-ordination• Feel tired or no energy• “Don’t feel right”	<ul style="list-style-type: none">• Nervousness or anxiety• Strange or inappropriate emotions (i.e., laughing, crying, getting mad easily)• Slow to answer questions or follow directions• Easily distracted• Not playing well• Changes in sleep patterns (sleeping more or less than usual)

Get medical help immediately if you have any “red flag” symptoms such as neck pain, repeated vomiting, growing confusion, seizures, and weakness or tingling in your arms or legs. These may be signs of a more serious injury.

What causes a concussion?

Any blow to your head, face or neck, or a blow to your body which causes a sudden jarring of your head may cause a concussion (e.g., hitting your head on the ice, colliding with another player, being checked into the boards).

What should I do if I think I might have a concussion?

You should stop playing right away. Continuing to play increases your risk of more severe, longer-lasting concussion symptoms and increases your risk of other injury.

Tell your coach, team trainer, parent, official, or another adult you trust that you are concerned you might have a concussion. You should not be left alone and should be seen by a doctor as soon as possible that day. You should not drive.

If you lose consciousness or demonstrate any red flag symptoms, an ambulance should be called to take you to a hospital immediately.

Do not return to play the same day.

What should I do if I think my teammate might have a concussion?

If another player tells you about symptoms or if you notice signs they might have a concussion, tell a coach, team trainer, parent, official or other responsible person. They should not be left alone and should be seen by a doctor as soon as possible that day.

If another player is knocked out or shows red flag symptoms, an ambulance should be called to take them to a hospital immediately.

How long will it take to get better?

The signs and symptoms of a concussion usually last for up to four weeks, but may last longer. In

some cases, it may take many weeks or months to heal. If you have had a previous concussion, you may take longer to recover.

No two concussions are the same. Do not compare your recovery to someone else's, or even to a previous concussion you have had.

If your symptoms last longer than four weeks you should be referred to a healthcare professional who is an expert in the management of concussion.

How is concussion treated?

or the first 24 to 48 hours after your injury, you can do activities of daily living at home. These are things such as moving around your home, preparing meals, light walking and talking to family or friends. For the first 48 hours, spend less time with screens, such as phones, TVs and computers. Then, school and sport activities can be introduced and increased gradually.

As you are returning to activities, your symptoms may feel a little worse. This is common and OK as long as it is mild and brief. "Brief" means your symptoms should settle back down within an hour. If activities make your symptoms worsen more than this, take a break and adapt activities.

Recovering from concussion is a process that takes patience. Going back to activities before you are ready is likely to make your symptoms worse, and your recovery may take longer.

When should I go to the doctor?

Anyone with a possible head injury should be seen by a doctor as soon as possible. If you are diagnosed with a concussion, your doctor should schedule a follow-up visit with you within the next one to two weeks.

You should go back to the doctor immediately if, after being told you have a concussion, you have worsening symptoms, such as:

- being more confused

- headache that is getting worse
- vomiting more than twice
- not waking up
- having any trouble walking
- having a seizure
- strange behaviour

When can I return to school?

You might miss one or more days of school. Generally, more than one week of complete absence from the school environment is not recommended. Medical clearance is not required to return to school.

You may find it hard to concentrate in class, get a worse headache, or feel sick to your stomach. You may need to begin with partial days at school and may need accommodations to help you tolerate your workload and the school environment. Examples include access to breaks, extra time to complete work, permission to wear sunglasses in class or a quiet place to eat lunch.

Each concussion is unique, so you may progress at a different rate than other people you know. You should not rush through your return to activities. At the same time, if you can tolerate being at school, you should not be restricted from attending.

The Return-to-School Strategy provides information on the stages of returning to the classroom, and can be accessed at parachute.ca/smarthockey.

Remember, return to school must come before you seek medical clearance for full return to unrestricted sport activities.

When can I return to sport?

Return to sport and physical activity must follow a step-wise approach.

In the Return-to-Sport Strategy:

- Each stage is at least 24 hours.

- Move on to the next stage when you can tolerate activities.
- If your symptoms worsen more than mildly and briefly, stop and try again the next day at the same step.
- According to Hockey Canada's Concussion Protocol, if you experience concussion symptoms after medical clearance (i.e., during steps 4 to 6), you should return to step 3 to establish full resolution of symptoms. Medical clearance will be required again before progressing to step 4.

Step 1: Activities of daily living and relative rest (first 24 to 48 hours). Start with daily living activities such as moving around the house, preparing meals, light walking and social interactions (e.g., talking with friends or family). Minimize screen time.

Step 2: Light to moderate effort aerobic exercise

2A: Start with light aerobic exercise such as walking or stationary cycling at a slow to medium pace. You can begin light resistance training that does not result in more than mild and brief worsening of your symptoms.

2B: Gradually increase the intensity to moderate effort, such as stationary cycling or walking at a brisk pace. Moderate effort means the activity may cause faster breathing and heart rate, but not enough to prevent you from being able to talk comfortably.

Step 3: Individual sport-specific activities, without risk of inadvertent head impact. Add sport-specific activities (e.g., running, skating, shooting a puck) that can be done individually (away from other participants) in a low-risk environment. Activities should be supervised by a coach, trainer, teacher or parent/caregiver. Continue progressing at this step until symptom-free, even when exercising.

Medical clearance is required before step 4.

Step 4: Training drills and activities with no contact (no checking). Progress to usual intensity exercise and add in more challenging drills such as passing drills. Participate in multi-athlete training and non-contact practices.

Step 5: Return to non-competitive activities, full-contact practice and physical education activities. Progress to typical physical activities, except for competitive gameplay. Restore your confidence and skills.

Step 6: Return to sport and physical activity without restriction.

Never return to contact practice or gameplay until cleared by a doctor!

How can I prevent concussions?

Follow the 12 on-ice tips provided in this kit to ensure you are playing Smart Hockey and protecting yourself and others from injuries. Respect the rules of the game, especially ones that are in place to reduce head contact.

Wear the appropriate equipment at all times and ensure that all of your equipment fits properly. Your skates need to fit properly and be in good condition to prevent falls and crashes. **Helmets do not prevent concussion**, but always wear your helmet properly to prevent other head injuries. **Mouthguards have not been proven to prevent concussions**, but always wear a properly fitted mouthguard to protect your mouth and teeth.

