

Sport-related concussion: Information for parents, coaches and trainers

What is a concussion?

A concussion is a brain injury that affects the way you think and remember things for a short time. Concussions can't be seen on x-rays, computed tomography (CT) scans or Magnetic Resonance Imaging (MRI).

What causes a concussion?

Any blow to the head, face or neck, or somewhere else on the body that causes a sudden movement of the head can cause a concussion. Some examples include being hit in the head with a ball or being checked into the boards in hockey.

What are the signs and symptoms of concussion?

A person does not need to be knocked out (lose consciousness or pass out) to have had a concussion.

In younger children, the signs and symptoms may not be clear, and a child may have trouble describing how they feel. Concussion symptoms may not be obvious right away and may even develop a few days after the injury. Some possible symptoms include:

Physical signs	Changes in behaviour	Cognitive impairment (problems thinking)	Trouble with sleep
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Headache	Irritability	Slowed reaction times	Drowsiness
Nausea/vomiting	Sadness	Confusion	Trouble falling asleep
Dizziness	Anxiety	Difficultly concentrating	Sleeping more
Changes in sight	Personality changes	Difficulty remembering	than usual
Loss of consciousness (passing out)		Feeling dazed or in a fog	Sleeping less than usual
Irritation from light			
Irritation from loud sounds			
Loss of balance/poor coordination			
Decreased playing ability			

What should you do if I think a child has had a concussion?

- Make sure the child stops playing the sport or activity right away.
- Do not leave the child alone. Keep a particularly close eye on them for the first 6 to 8 hours.
- If the child is knocked out, call an ambulance immediately. Do not move the child or remove sporting equipment, such as a helmet. Wait for the paramedics to arrive.
- The child should be taken to hospital right away if they are vomiting, have a significant change in their vision, an increasing headache, or if their symptoms seem to be getting much worse.

How long will it take to get better?

If a child has had a concussion, they will need to be watched closely by a responsible adult for 24 to 48 hours to make sure the symptoms aren't getting worse.

Problems caused by a head injury can get worse later that day or night. **Do not leave the child alone.** Check on them throughout the night. There is no need to wake them during the night unless there is a concern about their breathing. If they seem to be getting worse, see a doctor immediately.

The signs and symptoms of concussion often last for 7 to 10 days and can sometimes last weeks or months. If the child has had a concussion before or has other medical or mental health issues, it may take longer to heal.

Make sure that the child maintains a healthy diet and sleep schedule and stays hydrated. Stress can also influence a child's recovery. Try to create an encouraging and stress-free environment.

How is a concussion treated?

Even though it can be frustrating for an active person to rest, it is an important first step. Once your child feels better after resting, they can slowly start to increase activities. Light and low-risk exercises (e.g., walking, stretching, and meditating) can be helpful. Your child should take their time when returning to activities.

Screen time should be limited, as it puts a lot of stress on the brain.

Don't completely isolate a child for any significant period. Your child should be allowed to interact with others via phone calls, or with limited in-person interactions.

When should a child go to a doctor?

Every child who gets a head injury should be seen by a doctor as soon as possible if they have symptoms as described above or there are concerns for serious brain injury.

If your child has been diagnosed with a concussion, they should return to a doctor immediately if symptoms get worse, such as:

- more confusion.
- a headache that gets worse,
- vomiting more than once,
- not waking up,
- having trouble walking,
- experiencing a seizure, or
- behaving strangely.

When can my child return to school?

Your child may have to initially stay home from school, as schoolwork can make symptoms worse. But, with support from the school, it is recommended that they go back as soon as they are able. It is not necessary to wait until symptoms are entirely gone before returning.

When can my child return to playing sports?

Children should return to sport **only after** they have returned to school full-time and no longer have special accommodations for schoolwork in place.

Children should not go back to high-risk activity until they are symptom-free and have gone through the following return-to-play stages, which should be managed by a doctor:

- 1. Light walking, stretching, and meditating.
- 2. Light exercise, such as walking or stationary cycling for 10 to 15 minutes.
- 3. Sport-specific activity (such as skating in hockey or running in soccer) for 20 to 30 minutes.
- 4. "On field" practice, such as ball drills, shooting drills, and other activities with no contact (for example, no checking and no heading the ball).
- 5. "On field" practice with body contact.
- 6. Game play.

Each stage should be at least 1 day. If your child has any concussion symptoms during the activity, they should stop immediately and rest for 24 to 48 hours. They should be seen by a doctor before starting the plan again.

No child should go back to a sport until they have been cleared to do so by a doctor.

How can I prevent a concussion?

Although helmets do not prevent concussions, your child should always wear an approved safety helmet for sports where there is a risk of a head injury, such as cycling, skiing, and skating.

If you are a coach or trainer, learn to recognize the signs and symptoms of sport-related concussions.

For more in-depth information on concussions, please consult Parachute.

Additional resources

Concussions (Parachute)
 (https://parachute.ca/en/injury-topic/concussion/)

- Concussion guide for parents and caregivers (Parachute)
 (https://parachute.ca/wp-content/uploads/2019/06/Concussion-Guide-for-Parents-and-Caregivers.pdf)
- Canadian Guideline on Concussion in Sport (Parachute)
 (https://parachute.ca/en/professional-resource/concussion-collection/canadian-guideline-on-concussion-in-sport/)
- Resources for Families, Schools and Sports Organizations (Ontario Neurotrauma Foundation)

(https://braininjuryguidelines.org/pediatricconcussion/tools-resources/community-resources/)

 Concussion and you: A Handbook for Parents and Kids (Holland Bloorview Kids Rehabilitation Hospital)

(http://hollandbloorview.ca/programsandservices/concussioncentre/concussioneducation/handbook)

Reviewed by the following CPS committees

• Injury Prevention Committee

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Available at www.caringforkids.cps.ca