McMaster Children's Hospital

Recovery after a concussion

Information for parents after their child's visit to the Emergency Department

A concussion is a type of brain injury that affects how the brain works. It causes changes in the brain that are not be seen on an X-ray, CT or MRI scan.

A concussion may be caused by a blow to the head, face, neck or body. Loss of consciousness may occur.

A concussion may affect balance, reaction time and the way a person thinks and remembers.

Common symptoms

- Sleeping problems
- Headache
- Nausea and vomiting
- Poor balance or coordination
- Dizziness
- Visual problems
- Sensitivity to light or noise
- Mental 'fogginess'
- Difficulty with concentration or memory
- Irritability
- Sadness
- Nervousness

Red flag symptoms

If you notice any of the following symptoms, take your child to a hospital Emergency Department :

- Sleeping more than usual
- Headache or neck pain that does not go away or gets worse
- Vomiting
- Seizures
- Blurred or double vision
- Slurred speech
- Loss of movement
- Changes in behaviour (irritability, agitation or aggression)

Recovery

The brain needs time to heal.

For the first 24 to 48 hours after a concussion, your child should not do activities that make the symptoms worse.

To help your child recover, we also recommend that your child:

- ✓ Drinks water to prevent dehydration.
- ✓ Has regular snacks and meals.

The symptoms of concussion usually get better within 4 weeks. Sometimes, recovery takes longer.

If your child's symptoms do not improve within 4 weeks, see your family doctor or health care provider for assessment and referral to a specialist.

Returning to school and activities

If your child has no symptoms after the 24- to 48-hour period of rest, they can gradually go back to activities such as learning and playing. Follow the guidelines on the next page. Begin with a slow return to school. If that goes well, plan a slow return to sport.

If your child continues to do activities when they have symptoms, their recovery will take longer.

Getting another concussion while the brain is healing can cause the recovery to take longer, and possibly cause long term problems with thinking and learning.

If you have any questions about your child's return to activity, talk with your family doctor or health care provider.

Follow these stages to increase your child's activity. There should be at least 24 hours (or longer) for each stage. If symptoms return, your child needs more rest and should go back to the previous stage.

Guide to a slow return to school/work:

Stage	Activity	Goal
1. Daily activities at home that do not cause symptoms	• Your child can do their usual daily activities as long as symptoms do not increase. For example: reading, texting, screen time (video games, computer, TV) and playing musical instruments. • Start with 5 to 15 minutes at a time and gradually build up.	Gradual return to usual activities
2. School activities	• Your child can do homework, reading or other cognitive activities (thinking tasks) outside of the classroom.	Increase ability to do thinking tasks
3. Return to school part-time	• Your child can gradually begin schoolwork. • May need to start with a half day or with increased breaks during the day.	Increase ability to do schoolwork
4. Return to school full-time	• Your child can slowly increase school activities until they can do a full day.	Return to full school activities and catch up on missed work

After your child has successfully returned to school, you can plan their return to sports or other physical activities.

Gradual return to sport

Stage	Activity	Goal
1. Symptom-limited activity	• Daily activities that do not cause symptoms	Gradual return to work and school activities
2. Light aerobic exercise	• Walking or stationary cycling at slow to medium pace. No resistance/weight training.	Increase heart rate
3. Sport-specific exercise	• Running or skating drills. No head impact activities.	Add movement
4. Non-contact training drills	• Harder training drills, such as passing drills. May start some resistance/weight training.	Exercise, coordination and increased thinking
5. Full contact practice	• With doctor's approval, your child can take part in normal training activities.	Regain confidence. Have coaches assess functional skills.
6. Return to sport	• Normal game play	

Resources about concussion

CanChild

https://canchild.ca/en/resources/249-concussion-mild-traumatic-brain-injury-guideline-brochures

Parachute

https://parachute.ca/en/injury-topic/concussion/

Concussion Awareness Training Tool

https://cattonline.com

Information in this handout is based on this guide for professionals:

McCrory P, Meeuwisse W, Dvořák J, et al. Consensus statement on concussion in sport—the 5th international conference on concussion in sport held in Berlin, October 2016. Br J Sports Med 2017;51:838-847.

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