

Alberta Roller Derby Association: Concussion Education

WHAT IS A CONCUSSION?

A concussion is a brain injury that can't be seen on x-rays, CT or MRI scans. It affects the way an athlete thinks and can cause a variety of symptoms. **WHAT CAUSES A CONCUSSION?** Any blow to the head, face or neck, or somewhere else on the body that causes a sudden jarring of the head may cause a concussion. Examples include getting body-checked in hockey or hitting one's head on the floor in gym class.

WHEN SHOULD I SUSPECT A CONCUSSION?

A concussion should be suspected in any athlete who sustains a significant impact to the head, face, neck, or body and reports ANY symptoms or demonstrates ANY visual signs of a concussion. A concussion should also be suspected if an athlete reports ANY concussion symptoms to one of their peers, parents, teachers, or coaches or if anyone witnesses an athlete exhibiting ANY of the visual signs of concussion. Some athletes will develop symptoms immediately while others will develop delayed symptoms (beginning 24-48 hours after the injury).

WHAT ARE THE SYMPTOMS OF A CONCUSSION?

A person does not need to be knocked out (lose consciousness) to have had a concussion. Common symptoms include:

- Headaches or head pressure
- Easily upset or angered
- Dizziness ▶ Sadness
- Nausea and vomiting
- Nervousness or anxiety
- Blurred or fuzzy vision
- Feeling more emotional
- Sensitivity to light or sound
- Sleeping more or sleeping less
- Balance problems
- Having a hard time falling asleep
- Feeling tired or having no energy
- Difficulty working on a computer
- Not thinking clearly
- Difficulty reading
- Feeling slowed down
- Difficulty learning new information



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WHAT ARE THE VISUAL SIGNS OF A CONCUSSION?

Visual signs of a concussion may include:

- Lying motionless on the playing surface
- Blank or vacant stare
- Slow to get up after a direct or indirect hit to the head
- Balance, gait difficulties, motor incoordination, stumbling, slow labored movements
- Disorientation or confusion or inability to respond appropriately to questions
- Facial injury after head trauma
- Clutching head

WHAT SHOULD I DO IF I SUSPECT A CONCUSSION?

If any athlete is suspected of sustaining a concussion during sports they should be immediately removed from play. Any athlete who is suspected of having sustained a concussion during sports must not be allowed to return to the same game or practice. It is important that ALL athletes with a suspected concussion undergo medical assessment by a medical doctor or nurse practitioner, as soon as possible. It is also important that ALL athletes with a suspected concussion receive written medical clearance from a medical doctor or nurse practitioner before returning to sport activities.

WHEN CAN THE ATHLETE RETURN TO SCHOOL AND SPORTS?

It is important that all athletes diagnosed with a concussion follow a step-wise return to school and sports related activities that includes the following Return-to-School and Return-to-Sport Strategies. It is important that youth and adult student-athletes return to full-time school activities before progressing to stage 5 and 6 of the Return-to-Sport Strategy.

Return-to-School Strategy

Stage	Aim	Activity	Goal of each step
1	Daily activities at home that do not give the student-athlete symptoms	Typical activities during the day as long as they do not increase symptoms (i.e. reading, texting, screen time). Start at 5-15 minutes at a time and gradually build up.	Gradual return to typical activities
2	School activities	Homework, reading or other cognitive activities outside of the classroom.	Increase tolerance to cognitive work
3	Return to school part-time	Gradual introduction of schoolwork. May need to start with a partial school day or with increased breaks during the day.	Increase academic activities
4	Return to school full-time	Gradually progress	Return to full academic activities and catch up on missed school work



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McCrory et al. (2017). Consensus statement on concussion in sport – the 5th international conference on concussion in sport held in Berlin, October 2016. *British Journal of Sports Medicine*, 51(11), 838-847.

Return-to-Sport Strategy

Stage	Aim	Activity	Goal of each step
1	Symptom-limiting activity	Daily activities that do not provoke symptoms	Gradual re-introduction of work/school activities
2	Light aerobic activity	Walking or stationary cycling at slow to medium pace. No resistance training <i>-Light intensity jogging or stationary cycling for 15-20 minutes at sub-symptom threshold intensity</i>	Increase heart rate
3	Sport-specific exercise	Running or skating drills. No head impact activities <i>- Moderate intensity jogging for 30-60 minutes at sub-symptom threshold intensity</i> <i>- Low to moderate impact passing, dribbling, shooting, and agility drills</i>	Add movement
4	Non-contact training drills	Harder training drills, i.e. passing drills. May start progressive resistance training <i>- Participation in high intensity running and drills</i> <i>- Non-contact practice without heading</i> <i>- Participation in resistance training work-outs</i>	Exercise, coordination and increased thinking
5	Full contact practice	Following medical clearance <i>- Participation in full practice without activity restriction</i>	Restore confidence and assess functional skills by coaching staff
6	Return to sport	Normal game play	

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HOW LONG WILL IT TAKE FOR THE ATHLETE TO RECOVER?

Most athletes who sustain a concussion will make a complete recovery within 1-2 weeks while most youth athletes will recover within 1-4 weeks. Approximately 15-30% of patients will experience persistent symptoms (>2 weeks for adults; >4 weeks for youth) that may require additional medical assessment and management.



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HOW CAN I HELP PREVENT CONCUSSIONS AND THEIR CONSEQUENCES?

Concussion prevention, recognition and management require athletes to follow the rules and regulations of their sport, respect their opponents, avoid head contact, and report suspected concussions.

TO LEARN MORE ABOUT CONCUSSIONS PLEASE VISIT:

Parachute Canada: www.parachutecanada.org/concussion

