

Pre-Season Concussion Education Sheet

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

WHAT ARE THE VISUAL SIGNS OF A CONCUSSION?

Visual signs of a concussion may include:

- ▶ Lying motionless on the playing surface
- ▶ Slow to get up after a direct or indirect hit to the head
- ▶ Disorientation or confusion or inability to respond appropriately to questions
- ▶ Blank or vacant stare
- ▶ Balance, gait difficulties, motor incoordination, stumbling, slow labored movements
- ▶ 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 Strategy¹

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.

Sport-Specific Return-to-Sport Strategy¹

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.	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, e.g. passing drills. May start progressive resistance training.	Exercise, coordination and increased thinking.
5	Full contact practice	Following medical clearance and complete return to school.	Restore confidence and assess functional skills by coaching staff.
6	Return to sport	Normal game play.	

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.

¹Source: 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. <http://dx.doi.org/10.1136/bjsports-2017-095691>