

CONCUSSION TOOL

For Coaches, Teachers, Parents, Students and Athletic Therapists

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 a person may think and remember things and can cause a variety of symptoms and signs. You do NOT need to lose consciousness to have a concussion.

What causes a concussion?

Any blow to the head, face or neck, or a blow to the body that transmits a force to the head may cause a concussion, e.g., a ball to the head in soccer, being checked into the boards in hockey.

What are the symptoms and signs of a concussion?

Any one or more of the following symptoms and signs may suggest a concussion:

	Symptoms Reported:	Signs Observed:	
Physical	<ul style="list-style-type: none">• Headache• Neck pain• Stomach ache• Blurred vision	<ul style="list-style-type: none">• Pressure in head• Dizziness• Nausea• Sensitivity to light/noise	<ul style="list-style-type: none">• Loss of consciousness• Nausea/vomiting• Seizure/convulsion• Poor coordination/balance• Amnesia• Slowed reaction time• Slurred speech
Cognitive	<ul style="list-style-type: none">• Feeling in a fog• Difficulty concentrating	<ul style="list-style-type: none">• Difficulty remembering	<ul style="list-style-type: none">• Difficulty concentrating• Difficulty remembering• Confusion• Slowed reaction time
Behavioural	<ul style="list-style-type: none">• Irritability• Sad/emotional	<ul style="list-style-type: none">• Nervous/anxious• Depressed	<ul style="list-style-type: none">• Inappropriate emotions• Depression
Sleep	<ul style="list-style-type: none">• Drowsiness	<ul style="list-style-type: none">• Difficulty falling asleep	<ul style="list-style-type: none">• Drowsiness

Note: It may be more difficult for students under the age of 10, those with special needs or students for whom English or French is not their first language, to communicate how they are feeling. The signs of a concussion for younger students may not be as obvious.

Action plan: What to do if you suspect a student has a concussion

If the student is **unconscious**:

- Initiate the Emergency Action Plan and call 911.
- Assume a possible neck injury and, only if trained, immobilize the student before EMS arrives.
- Do not move the student or remove athletic equipment; wait for EMS to arrive.
- Do not leave the student alone.
- Contact the student's parent/guardian.

If the student is **conscious**:

- Stop the activity immediately.
- When the student can be safely moved, remove from activity.
- Conduct an initial concussion assessment – review Symptoms and Signs, perform Memory Testing and Balance Testing (optional).
 - Following the initial assessment, if a **concussion is suspected**:
 - Do not allow the student to return to activity.
 - Contact the student's parent/guardian to pick up student.
 - Stay with the student until parent/guardian arrives.
 - If any signs or symptoms worsen, call 911.
 - Inform the parent/guardian that the student needs to be examined by a medical doctor or nurse practitioner as soon as possible and provide them with a copy of this tool.
 - Following the initial assessment, if a **concussion is not suspected**:
 - The student may return to activity.
 - Contact the student's parent/guardian to inform them of the incident.
 - Provide the parent/guardian with a copy of this tool and inform them that the student should be monitored for 24-48 hours since signs and symptoms may take hours or days to emerge.

Memory Testing

Failure to answer any one of these questions correctly may suggest a concussion.

- What activity/sport are we playing right now?
- What field/facility are we at today?
- What part of the day is it?
- What is the name of your teacher/coach?
- What school do you go to?

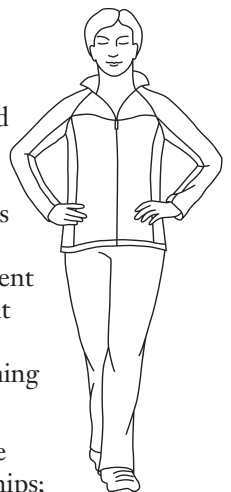
Note: Questions should be geared to student's age and activity.

Balance Testing (OPTIONAL)

Instructions for tandem stance

Ask the student to stand heel-to-toe with non-dominant foot in back. Weight should be evenly distributed across both feet. Student should try to maintain stability for 20 seconds with hands on hips and eyes closed. Count the number of times the student moves out of this position. If student stumbles out of this position, have student open his/her eyes and return to the start position and continue balancing. Start timing when student is set and has eyes closed.

Observe the student for 20 seconds. If the student makes errors (e.g. lifts hands off hips; opens eyes; lifts forefoot or heel; steps, stumbles, or falls; or remains out of the start position for more than 5 seconds), this may suggest a concussion. *SCAT 2 2009*



GUIDELINES FOR STUDENTS RECOVERING FROM A CONCUSSION

It is important for students to be active and play sports. However, a student with a diagnosed concussion needs to follow a medically supervised, individualized Return to Learn/Return to Physical Activity Plan.

Return to Learn and Return to Physical Activity

Step 1 for a student with a diagnosed concussion is the same for Return to Learn and Return to Physical Activity.

Step 1: Rest, with limited cognitive and physical activity. This means limited TV, computer, texting, video games, or reading. The student does not attend school during Step 1. Step 1 continues for a minimum of 24 hours and until the student's symptoms/signs begin to improve or the student is symptom/sign-free.



Return to Learn*

The Return to Learn process is individualized and gradual to meet the particular needs of the student. There is no preset formula for developing strategies to assist a student with a concussion to return to his/her learning activities.

Step 2A: (symptoms improving)

During this step, the student requires individualized classroom strategies and/or approaches to return to full learning activities – these will need to be adjusted as recovery occurs.

At this step, the student's cognitive activity should be increased slowly (both at school and at home) because the concussion may affect his/her academic performance.

Note: Cognitive activities can cause a student's concussion symptoms to reappear or worsen.

Step 2B: (symptom-free)

Student begins regular learning activities without any individualized classroom strategies and/or approaches. Even when students are symptom-free, they should continue to be closely monitored to see if symptoms/signs return and/or there is a deterioration of work habits or performance.

Note: This step occurs at the same time as Step 2 – Return to Physical Activity. Some students may progress from Step 1 directly to Step 2B if they are symptom-free.

Return to Physical Activity

Step 2:

Individual, light aerobic physical activity only such as walking or stationary cycling.

Step 3:

Individual activity related to specific sports, e.g., skating in hockey, running in soccer. No body contact.

Step 4:

Activities where there is no body contact, such as progressive resistance training, non-contact practice and progression to more complex training drills, e.g., passing drills in football and ice hockey.

Note: Clearance by a medical doctor or nurse practitioner is required before Step 5.

Step 5:

Full participation in regular physical activity in non-contact sports following medical clearance. Full training/practice for contact sports.

Step 6:

Full participation in contact sports.

Note: Steps are not days. Each step must take a minimum of 24 hours and the length of time needed to complete each step will vary based on the severity of the concussion and the child/youth.

If at any time concussion signs and/or symptoms return and/or deterioration of work habits or performance occurs, the student needs to be examined by a medical doctor or nurse practitioner.

For more information on concussions visit:

Concussions Ontario: www.concussionsontario.org

Ophea: safety.ophea.net

Parachute: www.parachutecanada.org/active-and-safe

Ontario Government: www.ontario.ca/concussions

** Reproduced with permission from Ophea, Ontario Physical Education Safety Guidelines (updated annually)*

Developed based on tools in the literature including the International Consensus Statement on Concussion in Sport (2013) and the ThinkFirst concussion tool.

This tool has been reviewed by the Parachute/ThinkFirst Canada Concussion Education and Awareness Committee and the Recognition and Awareness Working Group, part of the mTBI/Concussion Strategy, of the Ontario Neurotrauma Foundation who funded the development of this tool.