



Appendix A: Concussion Information for Parents and Students

Context

Recent research has made it clear that a concussion can have a significant impact on a student's cognitive and physical abilities. In fact, research shows that activities that require concentration can actually cause a student's concussion symptoms to reappear or worsen. It is equally important to help students as they "Return to Learn" in the classroom as it is to help them "Return to Physical Activity". Without identification and proper management, a concussion can result in permanent brain damage and in rare occasions, even death.

Awareness of the signs and symptoms of concussion and knowledge of how to properly manage a diagnosed concussion is critical in a student's recovery and is essential in helping to prevent the student from returning to learning or physical activities too soon and risking further complications. Ultimately, the awareness and knowledge could help contribute to the student's long-term health and academic success. The support of a student with a concussion is a collaborative approach between home and school.

Concussion Definition

A concussion:

- is a brain injury that causes changes in how the brain functions, leading to symptoms that can be physical (e.g., headache, dizziness), cognitive (e.g., difficulty concentrating or remembering), emotional/behavioural (e.g., depression, irritability) and/or related to sleep (e.g., drowsiness, difficulty falling asleep);
- may be caused either by a direct blow to the head, face or neck, or a blow to the body that transmits a force to the head that causes the brain to move rapidly within the skull;
- can occur even if there has been no loss of consciousness (in fact most concussions occur without a loss of consciousness); and,
- cannot normally be seen on X-rays, standard CT scans or MRIs.

Concussion Diagnosis

A concussion is a clinical diagnosis made by a medical doctor or nurse practitioner. In the best interest of the child it is critical that a student with a suspected concussion be examined by a medical doctor or nurse practitioner. Without medical documentation the students' participation in physical activity will be restricted. *Please see Appendix C and Appendix D2.

Second Impact Syndrome

Research suggests that a child or youth who suffers a second concussion before he or she is symptom-free from the first concussion is susceptible to a prolonged period of recovery, and possibly **Second Impact Syndrome** – a rare condition that causes rapid and severe brain swelling and often catastrophic results.

CONCUSSION COMMON SIGNS AND SYMPTOMS

Following a blow to the head, face or neck, or a blow to the body that transmits a force to the head, a concussion should be suspected in the presence of any one or more of the following signs or symptoms:

	Possible Signs Observed A sign is something that will be observed by another person (e.g. Parent/guardian, teacher, coach, supervisor, peer)	Possible Symptoms Reported A symptom is something the student will feel/report
<u>Physical:</u>	<ul style="list-style-type: none"> • vomiting • slurred speech • slowed reaction time • poor coordination or balance • blank stare/glassy-eyed/dazed or vacant look • decreased playing ability • loss of consciousness or lack of responsiveness • lying motionless on the ground or slow to get up • amnesia • seizure or convulsion • grabbing or clutching of head 	<ul style="list-style-type: none"> • headache • pressure in the head • neck pain • Feeling off/not right • ringing in the ears • seeing double or blurry/loss of vision • seeing stars, flashing lights • pain at physical site of injury • nausea/stomach ache/pain • balance problems or dizziness • fatigue or feeling tired • sensitivity to light or noise
<u>Cognitive:</u>	<ul style="list-style-type: none"> • difficulty concentrating • easily distracted • general confusion • cannot remember things that happened before and after the injury • does not know time, date, place, class, type of activity in which he/she was participating • slowed reaction time (e.g. answering questions or following directions) 	<ul style="list-style-type: none"> • difficulty concentrating or remembering • slowed down, fatigue or low energy • dazed or in a fog
<u>Emotional:</u>	<ul style="list-style-type: none"> • strange or inappropriate emotions, (e.g., laughing, crying, getting mad easily) 	<ul style="list-style-type: none"> • irritable, sad, more emotional than usual • nervous, anxious, depressed
<u>Sleep:</u>	<ul style="list-style-type: none"> • drowsiness • insomnia 	<ul style="list-style-type: none"> • drowsy • sleeping more/less than usual • difficulty falling asleep

Note:

- Signs and symptoms can appear immediately after the injury or may take hours or days to emerge.
- Signs and symptoms may be different for everyone.
- A student may be reluctant to report symptoms because of a fear that he/she will be removed from the activity, his/her status on a team or in a game could be jeopardized or academics could be impacted.
- It may be difficult for students with special needs or those for whom English/French is not their first language to communicate how they are feeling.
- Signs for younger students (under the age of 10) may not be as obvious as in older students.

Information for Parents/Guardians when a concussion is suspected

***Due to the definition of a concussion, a student with a suspected concussion will NOT participate in any physical activity for a duration of 24 hours.**

Child <i>has</i> signs and symptoms:	Child <i>has no</i> signs or symptoms:
<p>Parent/Guardian will be:</p> <ul style="list-style-type: none"> -provided a copy of <i>the Tool to Identify a Suspected Concussion</i> (Appendix C) - provided a copy the <i>Documentation of Monitoring/Documentation of Medical Examination</i> (Appendix D2) -informed that the student needs to be examined by a medical doctor or nurse practitioner as soon as possible that day -informed that they need to communicate to the school principal the results of the medical examination (the student has/does not have a diagnosed concussion) prior to the student returning to school <i>*see the Documentation of Monitoring/ Documentation of Medical Examination Form</i> (Appendix D2) <p><i><u>If no concussion is diagnosed:</u></i> the student may resume regular learning and physical activities.</p> <p><i><u>If a concussion is diagnosed:</u></i> the student follows a medically supervised, individualized and gradual Return to Learn/Return to Physical Activity Plan with support from the school team.</p>	<p>Parent/Guardian will be:</p> <ul style="list-style-type: none"> -provided with a copy of <i>the Tool to Identify a Suspected Concussion</i> (Appendix C) - provided a copy the <i>Documentation of Monitoring/Documentation of Medical Examination</i> (Appendix D2) and informed that the form (Appendix D2) needs to be completed and submitted to principal after the monitoring period is completed. Explanation will be provided to parent/guardian (or emergency contact) that student <ul style="list-style-type: none"> • will attend school • will not participate in physical activity • will be monitored for signs and/or symptoms for 24 hours • will be monitored at school by teachers • will be monitored at home by parents/guardians <p><i>* if any signs or symptoms emerge, the student needs to be examined by a medical doctor or nurse practitioner as soon as possible that day. *see the <i>Documentation of Monitoring/ Documentation of Medical Examination Form</i> (Appendix D2)</i></p>

MANAGEMENT PROCEDURES FOR A DIAGNOSED CONCUSSION

Return to Learn/Return to Physical Activity Plan

A student with a diagnosed concussion needs to follow a medically supervised, individualized and gradual Return to Learn/Return to Physical Activity Plan. While Return to Learn and Return to Physical Activity processes are combined within the plan, a student with a diagnosed concussion must be symptom free prior to returning to regular learning activities.

The Return to Learn process is individualized to meet the particular needs of the student. There is no pre-set formula for developing strategies to assist a student with a concussion to return to his/her learning activities. In contrast, the Return to Physical Activity process follows an internationally recognized graduated stepwise approach.

It is important to note:

- Cognitive or physical activities can cause a student's symptoms to reappear
- 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 student.

Return to Learn/Return to Physical Activity - Step 1:

This step is completed at home. The student does not attend school during Step 1.

The most important treatment for concussion is rest (cognitive and physical):

- **Cognitive rest** includes limiting activities that require concentration and attention (e.g., reading, texting, television, computer, video/electronic games).
- **Physical rest** includes restricting recreational/leisure and competitive physical activities.

Step 1 continues for a minimum of 24 hours and until:

- the student's symptoms begin to improve; OR,
- the student is symptom free; as determined by the parents/guardians and the concussed student.

Parent/Guardian:

Before the student can return to school, the parent/guardian must communicate to the school principal, using *the Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan* (Appendix E) either that:

- the student's symptoms are improving and the student will proceed to Return to Learn – Step 2a **OR**
- the student is symptom free and will proceed directly to Return to Learn – Step 2b and Return to Physical Activity – Step 2.

Return to Learn - Step 2a:

A student with symptoms that are improving, but who is not yet symptom free, may return to school and begin Return to Learn - Step 2a. *Physical Rest must continue.

At this step, the student returns to school with monitored re-integration to the classroom. During this step, the student's cognitive activity should be increased slowly (both at school and at home), since the concussion may still affect his/her academic performance.

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

□ Parent/Guardian:

Must communicate to the school principal using the *Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan* (Appendix E), that the student is symptom free before the student can proceed to Return to Learn – Step 2b and Return to Physical Activity – Step 2.

Return to Learn - Step 2b:

**This step occurs concurrently with Return to Physical Activity - Step 2*

This step is for a student that has

- a) Progressed through Return to Learn - Step 2a and is now symptom free

OR

- b) Has become symptom free soon after the concussion and had completed Return to Learn/Return to Physical Activity - Step 1

Note: At this step, the student begins regular learning activities in the classroom, however, if at any time concussion signs and/or symptoms return and/or deterioration of work habits or performance occur, the student must be re-examined by a medical doctor or nurse practitioner.

□ Parent/Guardian:

Must communicate the results of the subsequent medical visit, and the appropriate step to resume in the Return to Learn/Return to Physical Activity Plan to the school principal using the *Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan* (Appendix E) before the student can return to school.

Return to Physical Activity - Step 2 (At Home):

Activity: Individual light aerobic physical activity only (e.g., walking, swimming or stationary cycling keeping intensity below 70% of maximum permitted heart rate)

Restrictions: No resistance or weight training. No competition (including practices, scrimmages). No participation with equipment or with other students. No drills. No body contact.

Objective: To increase heart rate

□ Parent/Guardian:

Must communicate to the school principal using the *Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan* (Appendix E) that the student continues to be symptom free in order for the student to proceed to Step 3.

Return to Physical Activity - Step 3:

Activity: Individual sport-specific physical activity only (e.g., running drills in soccer, skating drills in hockey, shooting drills in basketball)

Restrictions: No resistance/weight training. No competition (including practices, scrimmages). No body contact, no head impact activities (e.g., heading a ball in soccer) or other jarring motions (e.g., high speed stops, hitting a baseball with a bat).

Objective: To add movement

Return to Physical Activity - Step 4:

Activity: Activities where there is no body contact (e.g., dance, badminton). Progressive resistance training may be started. Non-contact practice and progression to more complex training drills (e.g., passing drills in football and ice hockey).

Restrictions: No activities that involve body contact, head impact (e.g., heading the ball in soccer) or other jarring motions (e.g., high speed stops, hitting a baseball with a bat)

Objective: To increase exercise, coordination and cognitive load

□ Parent/Guardian:

Must provide the school principal with written documentation from a medical doctor or nurse practitioner, using the *Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan* (Appendix E), that indicates the student is symptom free and able to return to full participation in physical activity in order for the student to proceed to Return to Physical Activity – Step 5.

Return to Physical Activity - Step 5:

Activity: Full participation in all regular physical education/intramural/interschool activities in non-contact sports. Return to training/practices for contact sports.

Restrictions: No competition (e.g., games, meets, events) that involve body contact Objective: To restore confidence and assess functional skills by teacher/coach

□ **Parent/ Guardian:**

Must complete the *Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan* (Appendix E) acknowledging that no signs or symptoms appeared after the contact practice. The child can then proceed to Step 6 and participate in contact competition.

Return to Physical Activity (Contact sports only) - Step 6:

Activity: Full participation in contact sports

Restrictions: None