For a visual overview of the steps and role responsibilities in suspected and diagnosed concussions see Chart 1

PREAMBLE

A collaborative effort of the Halton Catholic District School Board and the Halton District School Board and Halton Regional Health Department have "Haltonized" the Ontario Safety Guidelines Concussion Management Procedures to meet the needs and requirements of the students in the Halton Region.

The contents of the following Halton Concussion Management Procedures reflect the minimum standards that must be implemented by school staff when addressing an incident of a suspected or diagnosed concussion.

INTRODUCTION

The Ministry of Education expects all school boards in Ontario to develop and maintain a policy on concussion as outlined in Policy/Program Memorandum No. 158: School Board Policies on Concussion.
In partnership with the **Ministry of Education,** the ***ThinkFirst Concussion Education and Awareness Committee,*** and the ***Recognition and Awareness Working Group of the Mild Traumatic Brain Injury/Concussion Strategy,*** the Ontario Physical and Health Education Association (Ophea) has developed a concussion protocol as part of the Ontario Physical Education Safety Guidelines. The concussion protocol, contained within, is based on current research and knowledge and provides information on concussion prevention, identification of a suspected concussion and management procedures for a diagnosed concussion, including a plan to help a student return to learning and to physical activity. PPM 158 recognizes the Ontario Physical Education Safety Guidelines Concussion Protocol outlined to be the minimum standard.

The Halton Catholic District School Board has localized the components of the concussion protocol, to meet the specific needs of our school district. Although it is important to be familiar with the Ontario Physical Education Safety Guideline Concussion Protocol, educators must ensure that they use their own board's concussion protocol. All components of the Protocol, which include tools, forms, strategies, etc. can be found in the Halton Catholic District School Board's comprehensive C Package, which is comprised of 5 components, identified as: C-1 Concussion Protocol: Prevention, Identification and Management Procedures; C-2 Halton Tool to Identify a Suspected Concussion; C-3 Halton Monitoring/Medical Examination Form; C-4 Documentation for a Diagnosed Concussion - Return to Learn/Return to Physical Activity Plan; C-5 Concussion Prevention Strategies.

The Halton Catholic District School Board's Concussion Protocol, is a living document. Concussion information and procedures for the components of prevention, identification and management are always evolving with new research and consensus guidelines. In order to keep users of this document up to date with the newest information and procedures this document will be reviewed and revised where necessary on a regular basis. Users of this document are advised to refer to the HCDSBCP each and every year in September for the current HCDSBCP**.** Where revisions are of a critical nature the Halton Catholic District School Board will employ their standard process for informing stakeholders and staff of such changes.

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.

Research also 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.
Educators and school staff play a crucial role in the identification of a suspected concussion as well as the ongoing monitoring and management of a student with a concussion. Administrators, educators (including occasional teachers), school staff, students, parents and school volunteers play an important role in the prevention of

concussion, identification of a suspected concussion, as well as the ongoing monitoring and management of a student with a concussion.

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. It is critical that a student/athlete with a suspected concussion be examined by a medical doctor or nurse practitioner.

1. PREVENTION COMPONENT

Concussion prevention is important, "…*there is evidence that education about concussion leads to a reduction in the incidence of concussion and improved outcomes from concussion…"* [1]

Any time a student/athlete is involved in physical activity; there is a chance of sustaining a concussion. Therefore it is important to take a preventative approach encouraging a culture of safety mindedness when students are physically active.

PPM 158 states that the policy should include strategies for preventing and minimizing the risk of sustaining concussions (and other head injuries) in schools and at off-site school events.
One approach to the prevention of any type of injury includes primary, secondary and tertiary strategies.

Listed below are the three strategies for concussion injury prevention [2]:

- Primary – information/actions that prevent concussions from happening (e.g., rules and regulations, minimizing slips and falls by checking that classroom floor and activity environments provide for safe traction and are obstacle free);
- Secondary – expert management of a concussion that has occurred (e.g., Identification, and Management - Return to Learn and Return to Physical Activity) that is designed to prevent the worsening of a concussion;
- Tertiary – strategies help prevent long-term complications of a concussion (chronic traumatic encephalopathy) by advising the participant to permanently discontinue a physical activity/sport based on evidence-based guidelines.

Primary and secondary strategies are the focus of the concussion injury prevention information located in Package C-5: Concussion Prevention Strategies

2. IDENTIFICATION COMPONENT

"The identification component provides strategies for the following:
a) A teacher/coaches initial response for safe removal from the activity of a student injured as a result of a blow to the head, face or neck or a blow to the body that transmits a force to the head (e.g., student is conscious, student is conscious but lost consciousness even for a short period of time, student is unconscious)

b) Initial concussion – assessment strategies (e.g., use of common symptoms and signs of a concussion).

c) Steps to take following an initial assessment*"* [3]

"1 Journal of clinical s[ort Psychology, 2012, 6, 293-301; Charles H. Tater, Professor of Neurosurgery, Toronto Western Hospital, Toronto, ON Can.
"2 Journal of clinical s[ort Psychology, 2012, 6, 293-301; Charles H. Tater, Professor of Neurosurgery, Toronto Western Hospital, Toronto, ON Can.
"3 Policy/Programme Memorandum 158: School Board Policies on Concussion, 3, March 19, 2014, Ontario Ministry of Education

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:

TABLE 1: Common Signs and Symptoms of a Concussion

	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
Physical:	• 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 • seizure or convulsion • grabbing or clutching of head	• 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
Cognitive:	• difficulty concentrating • easily distracted • general confusion • amnesia • 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)	• difficulty concentrating or remembering • slowed down, fatigue or low energy • dazed or in a fog
Emotional:	• strange or inappropriate emotions, (e.g., laughing, crying, getting mad easily)	• irritable, sad, more emotional than usual • nervous, anxious, depressed
Sleep:	• drowsiness • insomnia	• 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/athlete 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/athletes with special needs or those for whom English/French is not their first language to communicate how they are feeling.
- Signs for younger students/athletes (under the age of 10) may not be as obvious as in older students

IDENTIFICATION STAGE: INITIAL RESPONSE

If a student/athlete receives a 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, and as a result may have suffered a concussion, the individual (e.g., teacher/coach) responsible for that student/athlete must take immediate action as follows:

☐ **Unconscious Student/Athlete (or where there was any loss of consciousness)**

Teacher/Coach/Supervisor Response:

- Stop the activity immediately – assume there is a concussion
- Initiate Emergency Action Plan and call 911. Do not move the student
- Assume there is a possible neck injury and, only if trained, immobilize the student/athlete before emergency medical services arrive
  - Do not remove athletic equipment (e.g., helmet) unless there is difficulty breathing
- Stay with the student/athlete until emergency medical services arrive
- Provide EMS with a copy of Tool to Identify a Suspected Concussion Tool C-2
- Contact the student's/athlete's parent/guardian (or emergency contact) to inform them of the incident and that emergency medical services have been contacted
- Monitor and document any changes (i.e., physical, cognitive, emotional/behavioural) in the student.
  - Refer to your board's injury report form for documentation procedures
- If the student/athlete regains consciousness, encourage him/her to remain calm and to lie still. Do not administer medication (unless the student/athlete requires medication for other conditions – e.g., insulin for a student/athlete with diabetes)
- Inform principal of the name of student/athlete who was taken to hospital with a suspected concussion

Information to be Provided to Parent/Guardian:

- Parent/Guardian must be provided with a copy of Monitoring/Medical Examination Form C-3
- informed that their child/ward needs to be examined by a medical doctor or nurse practitioner as soon as possible that day; and,
- informed that they need to communicate to the school principal the results of the medical examination (i.e., the child/ward does not have a diagnosed concussion or their child/ward has a diagnosed concussion) prior to the child/ward returning to school using Monitoring/Medical Examination Form C-3
- If **no** concussion is diagnosed: their child/ward may resume regular learning and physical activities
- If a concussion is diagnosed: their child/ward follows a medically supervised, individualized and gradual Return to Learn/Return to Physical Activity Plan

Responsibilities of the School Principal:

Once a student/athlete has been identified as having a suspected concussion, the school principal must:

- inform all school staff (e.g., classroom teachers, physical education teachers, intramural supervisors, coaches) and volunteers who work with the student/athlete of the suspected concussion; and,
- indicate that the student/athlete shall not participate in any learning or physical activities until the parent/guardian communicates the results of the medical examination (i.e., their child/ward does not have a diagnosed concussion or their child/ward has a diagnosed concussion) to the school principal (e.g. using Monitoring/Medical Examination Form C-3 or by returning a note signed and dated by the parent/guardian)

☐ **Conscious Student /Athlete**

Scenario 1: Signs / Symptoms ARE evident
Scenario 2: Signs / Symptoms ARE NOT evident

Teacher/Coach/Supervisor Response:

- Stop the activity if necessary so that the student/athlete can be safely moved
- Remove him/her from the current activity or game
- Initiate Emergency Action Plan
- Conduct an initial concussion assessment of the student/athlete (i.e., using Tool to Identify a Suspected Concussion Tool C-2)

1. **If sign(s) and/or symptom(s) ARE OBSERVED:**
   - **If sign(s) and/or symptoms(s) are reported and/or the student/athlete fails the Quick Memory Function Assessment (see Tool C-2)**

Teacher/Coach/Supervisor Response:

- A concussion should be suspected – do not allow the student/athlete to return to play in the activity, game or practice that day even if the student/athlete states that he/she is feeling better.
- Contact the student's/athlete's parent/guardian (or emergency contact) to **inform them**:
  - of the incident;
  - that they need to come and pick up their child/ward; and,
  - that their child/ward needs to be examined by a medical doctor or nurse practitioner as soon as possible that day
- Monitor and document any changes (i.e., physical, cognitive, emotional/behavioural) in the student/athlete. If any signs or symptoms worsen, call 911
  - Refer to your board's injury report (OSBIE) form for documentation procedures
- Do not administer medication (unless the student/athlete requires medication for other conditions – e.g., insulin for a student/athlete with diabetes)
- Stay with the student/athlete until her/his parent/guardian (or emergency contact) arrives
- The student/athlete must not leave the premises without parent/guardian (or emergency contact) supervision
- Inform principal of the name of student who was removed from the activity with a suspected concussion

Information to be Provided to Parent/Guardian:

- Parent/Guardian must be provided with:
  - a copy of Tool to Identify a Suspected Concussion Tool C-2
  - a copy of Monitoring/Medical Examination Form C-3
- informed that their child/ward needs to be examined by a medical doctor or nurse practitioner as soon as possible that day; and,
- informed that they need to communicate to the school principal the results of the medical examination (i.e., their child/ward does not have a diagnosed concussion or their child/ward has a diagnosed concussion) prior to their child/ward returning to school using Monitoring/Medical Examination Form C-3
- If no concussion is diagnosed: their child/ward may resume regular learning and physical activities
- If a concussion is diagnosed: their child/ward follows a medically supervised, individualized and gradual Return to Learn/Return to Physical Activity Plan

Responsibilities of the School Principal

Once a student/athlete has been identified as having a suspected concussion, the school principal must:

- inform all school staff (e.g., classroom teachers, physical education teachers, intramural supervisors, coaches) and volunteers who work with the student/athlete of the suspected concussion; and,
- indicate that the student/athlete shall not participate in any learning or physical activities until the parent/guardian communicates the results of the medical examination (i.e., their child/ward does not have a diagnosed concussion or their child/ward has a diagnosed concussion) to the school principal (e.g. using Documentation of Monitoring/Medical Examination Form C-3 or by returning a note signed and dated by the parent/guardian)
- file written documentation (e.g., Documentation of Monitoring/Medical Examination Form C-3 and/or parent's/guardian's note) of the results of the medical examination (e.g., in the student's OSR)

2. **If sign(s) or symptom(s) ARE NOT OBSERVED:**
   - **If signs are NOT observed, symptoms are NOT reported AND the student passes the Quick Memory Function Assessment (see Tool C-2)**

Teacher/Coach/Supervisor Response:

- Since signs and symptoms of a concussion can occur hours or days after the incident:

Student/Athlete is immediately removed from physical activity, and is not to return to physical activity for 24 hours, as a precautionary action

- Student's/Athlete's parent/guardian (or emergency contact) must be contacted and informed of the incident
- Inform principal of the name of student/athlete who was removed from the activity with no signs or symptoms of a suspected concussion, as a precautionary action

Information to be provided to Parent/Guardian:

- Parent/Guardian must be provided with a copy of Tool to Identify a Suspected Concussion Tool C-2 and, Documentation Monitoring/Medical Examination Form C-3
- signs and symptoms did not appear immediately and may take hours or days to emerge;
- Child/ward can continue to attend school and is to be monitored for 24 hours following the incident;
- parents/guardians to monitor child/ward when at home using Tool to Identify a Suspected Concussion Tool C-2
- Child/Ward will be monitored by school staff when attending school
- If any signs or symptoms emerge, their child/ward needs to be examined by a medical doctor or nurse practitioner as soon as possible that day
- Results of the medical examination are to be documented on Monitoring/Medical Examination Form C-3 with results brought to the principal

Responsibilities of the School Principal

- **Once a student/athlete has been identified requiring monitoring for signs and symptoms of a concussion for 24 hours the school principal must:**
  - inform all school staff (e.g., classroom teachers, physical education teachers, intramural supervisors, coaches) and volunteers who work with the student/athlete that:
  - Student/athlete is not to participate in any physical activity until parents/guardians have completed and returned the Monitoring/Medical Examination Form C-3
  - Identify staff who is to monitor the student/athlete for signs and symptoms of a suspected concussion using Tool to Identify a Suspected Concussion Tool C-2
  - If no signs or symptoms are observed by school staff/parents and Monitoring/Medical Examination Form C-3 is returned indicating no signs or symptoms, the principal informs all appropriate school staff that the student/athlete can return to regular learning and physical activity
  - The principal informs all appropriate school staff that if/when signs and symptoms are observed by school staff they are to be reported to the principal/designate
  - The principal will notify Parents/guardians that signs and symptoms have been observed, that there is a suspected concussion, and that their child/ward needs to be examined by a medical doctor or nurse practitioner as soon as possible that day; and,
  - That they need to communicate to the school principal the results of the medical examination (i.e., their child/ward does not have a diagnosed concussion or their child/ward has a diagnosed concussion) prior to their child/ward returning to school (see the reporting Documentation of Monitoring/Medical Examination Form C-3)
  - File written documentation (e.g., Documentation of Medical Examination Form C-3 and/or parent's/guardian's note) of the results of the medical examination (e.g., in the student's OSR).

- **Once a student has been identified as having a suspected concussion, the school principal must:**
  - inform all school staff (e.g., classroom teachers, physical education teachers, intramural supervisors, coaches) and volunteers who work with the student/athlete of the suspected concussion; and,
  - indicate that the student/athlete shall not participate in any learning or physical activities until the parent/guardian communicates the results of the medical examination (i.e., their child/ward does not have a diagnosed concussion or their child/ward has a diagnosed concussion) to the school principal (e.g. using Monitoring/Medical Examination Form C-3 or by returning a note signed and dated by the parent/guardian).
  - File written documentation (e.g., Documentation of Medical Examination Form C-3 and/or parent's/guardian's note) of the results of the medical examination (e.g., in the student's OSR).

MANAGEMENT STAGE: FOR A DIAGNOSED CONCUSSION

"*Given that children and adolescents spend a significant amount of their time in the classroom, and that school attendance is vital for them to learn and socialise, full return to school should be a priority following a concussion.*" [1]

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 (i.e. Return to Learn - Step 2b)) and beginning Return to Physical Activity – Step 2.

In developing the Plan, 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.

Collaborative Team Approach:

It is critical to a student's recovery that the Return to Learn/Return to Physical Activity Plan be developed through a collaborative team approach. Led by the school principal, the team should include:

- the concussed student;
- her/his parents/guardians;
- school staff and volunteers who work with the student; and,
- the medical doctor or nurse practitioner

Resources:

- Collaborative Team Plan: Role of the Principal; Role of the Point Person; Role of the Classroom teacher; Role of the Secondary Health and Physical Education Department Head; Role of the Elementary Physical Education Resource Teacher; Concussion Assessment and Accommodations' form
- FAQ's for classroom teacher
- Sport Concussion Library
- Nationwide Children's Hospital: An Educator's Guide to Concussion in the Classroom
- Framework for returning to school – time – portion of day, half day, full day

Ongoing communication and monitoring by all members of the team is essential for the successful recovery of the student (Resource: Script for School Contact to Parents when a Concussion has been diagnosed).

Completion of the Steps within the Plan:

The steps of the Return to Learn/Return to Physical Activity Plan may occur at home or at school.
The members of the collaborative team must factor in special circumstances which may affect the setting in which the steps may occur (i.e., at home and/or school), for example:

- the student has a diagnosed concussion just prior to winter break, spring break or summer vacation; or,
- the student is neither enrolled in Health and Physical Education class nor participating on a school team

Given these special circumstances, the collaborative team must ensure that Return to Learn/Return to Physical Activity Plan – Steps 1 - 4 are completed. As such, written documentation from a medical doctor or nurse practitioner (e.g. Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan Form C-4) that indicates the student is symptom free and able to return to full participation in physical activity must be provided by the student's parent/guardian to the school principal and kept on file (e.g., in the student's OSR).

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
- The duration of signs and symptoms of a concussion for children and adolescents, are unique to the individual

1 Davis GA, Purcell LK. The evaluation and management of acute concussion differs in young children. Br J Sports Med. Published Online First 23 April 2013 doi:10.1136/bjsports-2012-092132 (p. 3)

Return to Learn/Return to Physical Activity – Step 1

The student does not attend school during Step 1.

The most important treatment for concussion is rest (i.e., 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 (see Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan Form C-4 A) 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 the student will proceed directly to Return to Learn – Step 2b and Return to Physical Activity – Step 2)

Return to Learn – Designated School Staff Lead:

Once the student has completed Step 1 (as communicated to the school principal by the parent/guardian) and is therefore able to return to school (and begins either Return to Learn – Step 2a or Return to Learn – Step 2b, as appropriate), one school staff (i.e. a member of the collaborative team, either the school principal or another staff person designated by the school principal) needs to serves as the main point of contact for the student, the parents/guardians, other school staff and volunteers who work with the student, and the medical doctor or nurse practitioner.

The designated school staff lead will monitor the student's progress through the Return to Learn/Return to Physical Activity Plan. This may include identification of the student's symptoms and how he/she responds to various activities in order to develop and/or modify appropriate strategies and approaches that meet the changing needs of the student.

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.

During this step, the student requires individualized classroom strategies and/or approaches to return to learning activities - these will need to be adjusted as recovery occurs (see Table 2 - Return to Learn Strategies). At 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. Cognitive activities can cause a student's concussion symptoms to reappear or worsen.

It is important for the designated school staff lead, in consultation with other members of the collaborative team, to identify the student's symptoms and how he/she responds to various learning activities in order to develop appropriate strategies and/or approaches that meet the needs of the student. School staff and volunteers who work with the student need to be aware of the possible difficulties (i.e., cognitive, emotional/behavioural) a student may encounter when returning to learning activities following a concussion. These difficulties may be subtle and temporary, but may significantly impact a student's performance.

TABLE 2: Return to Learn Strategies/Approaches[4]

COGNITIVE DIFFICULTIES		
Post-Concussion Symptoms	**Impact on Student's Learning**	**Potential Strategies and/or Approaches**
Headache and Fatigue	Difficulty concentrating, paying attention or multitasking	• ensure instructions are clear (e.g., simplify directions, have the student repeat directions back to the teacher) • allow the student to have frequent breaks, or return to school gradually (e.g., 1-2 hours, half-days, late starts) • keep distractions to a minimum (e.g., move the student away from bright lights or noisy areas) • limit materials on the student's desk or in their work area to avoid distractions • provide alternative assessment opportunities (e.g., give tests orally, allow the student to dictate responses to tests or assignments, provide access to technology)
Difficulty remembering or processing speed	Difficulty retaining new information, remembering instructions, accessing learned information	• provide a daily organizer and prioritize tasks • provide visual aids/cues and/or advance organizers (e.g., visual cueing, non-verbal signs) • divide larger assignments/assessments into smaller tasks • provide the student with a copy of class notes • provide access to technology • repeat instructions • provide alternative methods for the student to demonstrate mastery
Difficulty paying attention/concentrating	Limited/short-term focus on schoolwork Difficulty maintaining a regular academic workload or keeping up	• coordinate assignments and projects among all teachers • use a planner/organizer to manage and record daily/weekly homework and assignments • reduce and/or prioritize homework, assignments and projects • extend deadlines or break down tasks • facilitate the use of a peer note taker • provide alternate assignments and/or tests • check frequently for comprehension • consider limiting tests to one per day and student may need extra time or a quiet environment

EMOTIONAL/BEHAVIOURAL DIFFICULTIES		
Post-Concussion Symptoms	**Impact on Student's Learning**	**Potential Strategies and/or Approaches**
Anxiety	Decreased attention/concentration Overexertion to avoid falling behind	• inform the student of any changes in the daily timetable/schedule • adjust the student's timetable/schedule as needed to avoid fatigue (e.g., 1-2 hours/periods, half-days, full-days) • build in more frequent breaks during the school day • provide the student with preparation time to respond to questions
Irritable or Frustrated	Inappropriate or impulsive behaviour during class	• encourage teachers to use consistent strategies and approaches • acknowledge and empathize with the student's frustration, anger or emotional outburst if and as they occur • reinforce positive behaviour • provide structure and consistency on a daily basis • prepare the student for change and transitions • set reasonable expectations • anticipate and remove the student from a problem situation (without characterizing it as punishment)
Light/Noise Sensitivity	Difficulties working in classroom environment (e.g., lights, noise, etc.)	• arrange strategic seating (e.g., move the student away from window or talkative peers, proximity to the teacher or peer support, quiet setting) • where possible provide access to special lighting (e.g., task lighting, darker room) • minimize background noise • provide alternative settings (e.g., alternative work space, study carrel) • avoid noisy crowded environments such as assemblies and hallways during high traffic times • allow the student to eat lunch in a quiet area with a few friends • where possible provide ear plugs/headphones, sunglasses
Depression/ Withdrawal	Withdrawal from participation in school activities or friends	• build time into class/school day for socialization with peers • partner student with a "buddy" for assignments or activities

Note: "Compared to older students, elementary school children are more likely to complain of physical problems or misbehave in response to cognitive overload, fatigue, and other concussion symptoms."[5]

Parent/Guardian:

Must communicate to the school principal (see Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan Form C-4 B) that the student is symptom free before the student can proceed to Return to Learn – Step 2b and Return to Physical Activity – Step 2.

[4] Adapted from Davis GA, Purcell LK. The evaluation and management of acute concussion differs in young children. Br J Sports Med. Published Online First 23 April 2013 doi:10.1136/bjsports-2012-092132

[5] Concussion in the Classroom. (n.d.). Upstate University Hospital Concussion Management Program. Retrieved from http://www.upstate.edu/pmr/healthcare/programs/concussion/pdf/classroom.pdf

Return to Learn – Step 2b (occurs concurrently with Return to Physical Activity – Step 2)

A student who:

- has progressed through Return to Learn – Step 2a and is now symptom free may proceed to Return to Learn – Step 2b; or,
- becomes symptom free soon after the concussion may begin at Return to Learn – Step 2b (and may return to school if previously at Step 1)

At this step, the student begins regular learning activities without any individualized classroom strategies and/or approaches.

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

Note: Since concussion symptoms can reoccur during cognitive and physical activities, students at Return to Learn – Step 2b, or any of the following return to physical activity steps, must continue to be closely monitored by the designated school staff lead and collaborative team for the return of any concussion symptoms and/or a deterioration of work habits and performance.

- If, at any time, concussion signs and/or symptoms return and/or deterioration of work habits or performance occur, the student must be examined by a medical doctor or nurse practitioner
- The parent/guardian must communicate the results and the appropriate step to resume the Return to Learn/Return to Physical Activity Plan to the school principal (e.g., see Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan Form C-4 F) before the student can return to school

Return to Physical Activity- Step 2

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 report back to the school principal (e.g. Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan form C-4 C) 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

Teacher:
Communicates with parents/guardians that the student has completed Steps 3 and 4 (see Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan – Form C-4 D1)

Parent/Guardian:
Must provide the school principal with written documentation from a medical doctor or nurse practitioner (e.g., completed Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity

Plan- Form C-4 D2) 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.

School Principal:
Written documentation (e.g. Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan Form C-4 A/B/C/D) is then filed (e.g., in the student's OSR) by the school principal.

Return to Physical Activity – Step 5

Activity: Full participation in regular non-contact physical education/intramural/interschool activities
Restrictions**:** No competition (e.g., games, meets, events) that involve body contact

School Principal – for student participation in non-contact activities:
Form Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan C-4 is filed in the student's OSR by the school principal.

Activity: Full training/practices for contact sports.
Restrictions**:** Where student is participating in a full body contact activity they must first participate in a practice with full body contact with no signs or symptoms.

Coach – Principal:
Coach informs principal that the student completed full contact practice and completes the section on C-4 E1.

Principal – Parent Guardian Form C-4 E1
Principal provides parent /guardian with Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan C-4 – section E that indicates the student successfully participated in full body contact practice.

Parent/Guardian – Principal form C-4 E2:
Parent/ guardian must communicate to the school principal with written acknowledgement/signature that the student has no signs or symptoms and consent for their child to participate in full contact competitions using form Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan C-4 E2.

Principal – Coach:
Principal informs coach parent/guardian has given permission for student to participate in full body contact competition.

School Principal – for student participation in contact activities:
Form Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan C-4 (all appropriate sections of Package C-4) is filed in the student's OSR.

Return to Physical Activity – Step 6 (Contact sports only)

Activity: Full participation in contact sports
Restrictions: None