Appendix C-1

Concussion Protocol: Prevention, Identification and Management Procedures

For a visual overview of the steps and role responsibilities in suspected and diagnosed concussions, see Chart 1 (pg 19-20).

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 this appendix 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 in this document to be the minimum standard.

School boards may localize the components of the concussion protocol, to meet the specific needs of their school district, keeping in mind that they can raise the minimum standards but cannot lower the standards. 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.

The Ontario Physical Education Safety Guidelines Concussion Protocol (OPESGCP) 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 yearly basis. School boards and users of this document are advised to refer to the OPESGCP each and every

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year in September for the current OPESGCP**.** Where revisions are of a critical nature Ophea will inform its users through electronic notification.

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 develop strategies to assist students as they "return to learn" in the classroom as it is to develop strategies to assist them "return to physical activity". Without addressing 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.

Administrators, educators (including occasional teachers), school staff, students, parents and school volunteers play an important 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.

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CONCUSSION DIAGNOSIS

A concussion is a clinical diagnosis made by a medical doctor or nurse practitioner. It is critical that a student 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.

[1] Journal of Clinical Sport Psychology, 2012, 6, 293-301; Charles H. Tator, Professor of Neurosurgery, Toronto Western Hospital, Toronto, ON Can.
[2] Journal of Clinical Sport Psychology, 2012, 6, 293-301; Charles H. Tator, Professor of Neurosurgery, Toronto Western Hospital, Toronto, ON Can.

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Primary and secondary strategies are the focus of the concussion injury prevention information located in Appendix C- 5 - Sample 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]

a) INITIAL RESPONSE:

If a student 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 must take immediate action as follows:

Unconscious Student (any loss of consciousness, including seizure or convulsion)

- 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 before emergency medical services arrive.
    - Do not remove athletic equipment (e.g., helmet) unless there is difficulty breathing.
- Stay with the student until emergency medical services arrive.
- Contact the student'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.

[3] Policy/Program Memorandum 158: School Board Policies on Concussion, 3, March 19, 2014 , Ontario Ministry of Education

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- If the student regains consciousness, encourage him/her to remain calm and to lie still. Do not administer medication (unless the student requires medication for other conditions – e.g., insulin for a student with diabetes).

Conscious Student

- Stop the activity immediately.
- Initiate Emergency Action Plan.
- When the student can be safely moved, remove him/her from the current activity or game.
- Conduct an initial concussion assessment of the student (e.g., using "Appendix C-2 – Sample Tool to Identify a Suspected Concussion").

b) INITIAL CONCUSSION ASSESSMENT

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:

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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 *(call 911 immediately)* • lying motionless on the ground or slow to get up • amnesia • seizure or convulsion (*call 911 immediately)* • grabbing or clutching of head **Cognitive** • 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) **Emotional/Behavioural** • strange or inappropriate emotions (e.g., laughing, crying, getting angry easily) **Sleep Disturbance** • drowsiness • insomnia	**Physical** • headache • pressure in 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 or remembering • slowed down, fatigue or low energy • dazed or in a fog **Emotional/Behavioural** • irritable, sad, more emotional than usual • nervous, anxious, depressed **Sleep Disturbance** • 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.

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- 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 younger students (under the age of 10), students with special needs or students 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.

C) STEPS TO TAKE FOLLOWING AN INITIAL ASSESSMENT

i. If sign(s) are observed and/or symptom(s) are reported and/or the student fails the Quick Memory Function Assessment (see Appendix C-2):

Teacher Response

- A concussion should be suspected – do not allow the student to return to play in the activity, game or practice that day even if the student states that he/she is feeling better.
- Contact the student's parent/guardian (or emergency contact) to inform them:
    - of the incident;
    - that they need to come and pick up the student; and,
    - that the student 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. If any signs or symptoms worsen, call 911.
    - Refer to your board's injury report form for documentation procedures.
- Do not administer medication (unless the student requires medication for other conditions – e.g., insulin for a student with diabetes).
- Stay with the student until her/his parent/guardian (or emergency contact) arrives.
    - The student must not leave the premises without parent/guardian (or emergency contact) supervision.

Information to be Provided to Parent/Guardian:

- Parent/Guardian must be:
    - informed that the student needs to be examined by a medical doctor or nurse practitioner as soon as possible that day; and, provided with a copy of the

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tool used to identify the suspected concussion, (see "Appendix C-2 - Sample Tool to Identify a Suspected Concussion")

- o informed that they need to communicate to the school principal the results of the medical examination (i.e., the student does not have a diagnosed concussion or the student has a diagnosed concussion) prior to the student returning to school (see the sample reporting form "Appendix C-3 – Sample Documentation of Medical Examination").
  - If **no** concussion is diagnosed: the student may resume regular learning and physical activities.
  - If a concussion is diagnosed: the student follows a medically supervised, individualized and gradual Return to Learn/Return to Physical Activity Plan.

ii. If signs are NOT observed, symptoms are NOT reported AND the student passes the Quick Memory Function Assessment (see Appendix C-2):

Teacher response:

- A concussion is not suspected - the student may return to physical activity.
- However the student's parent/guardian (or emergency contact) must be contacted and informed of the incident.

Information to be Provided to Parent/Guardian:

- Parent/Guardian must be:
  - o informed that:
    - signs and symptoms may not appear immediately and may take hours or days to emerge;
    - the student should be monitored for 24-48 hours following the incident; and,
    - 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.
- Schools may wish to use "Appendix C-2 – Sample Tool to Identify a Suspected Concussion" to communicate this information.

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Responsibilities of the School Principal

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 with the suspected concussion; and, (*Prior to communicating with volunteers refer to board protocol for sharing of student information.)
- indicate that the student shall not participate in any learning or physical activities until the parent/guardian communicates the results of the medical examination (i.e., the student does not have a diagnosed concussion or the student has a diagnosed concussion) to the school principal (e.g., by completing "Appendix C-3 – Sample Documentation of Medical Examination" or by returning a note signed and dated by the parent/guardian).

DOCUMENTATION OF MEDICAL EXAMINATION:

Prior to a student with a suspected concussion returning to school, the parent/guardian must communicate the results of the medical examination (i.e., student does not have a diagnosed concussion or the student has a diagnosed concussion) to the school principal (see the sample reporting form "Appendix C-3 – Sample Documentation of Medical Examination").

- If no concussion is diagnosed: the student may resume regular learning and physical activities.
- If a concussion is diagnosed: the student follows a medically supervised, individualized and gradual Return to Learn/Return to Physical Activity Plan (see section below: Management Procedures for a Diagnosed Concussion).

Responsibilities of the School Principal

Once the parent/guardian has informed the school principal of the results of the medical examination, 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 of the diagnosis; and, (*Prior to communicating with volunteers refer to board protocol for sharing of student information.)
- file written documentation (e.g., "Appendix C-3 – Sample Documentation of Medical Examination", parent's note) of the results of the medical examination (e.g., in the student's OSR).

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- Principal provides parent/guardian with a form to record documentation of the student's progress through the Return to Learn/Return to Physical Activity Plan (e.g., Appendix C-4 – Sample Documentation for a Diagnosed Concussion –Return to Learn/Return to Physical Activity Plan).

3. MANAGEMENT PROCEDURES 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 socialize, full return to school should be a priority following a concussion."[4]

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, this awareness and knowledge could help contribute to the student's long-term health and academic success.

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., Step 2b – Return to Learn) and beginning Step 2 – Return to Physical Activity.

In developing the Plan, the return to learn process is individualized 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. In contrast, the return to physical activity process follows an internationally recognized graduated stepwise approach.

[4] 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)

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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.

Ongoing communication and monitoring by all members of the team is essential for the successful recovery of the student.

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 steps 1-4 of the Return to Learn/Return to Physical Activity Plan are completed. As such, written documentation from a medical doctor or nurse practitioner (e.g., "Appendix C-4 – Sample Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan") 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.

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- 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 signs and symptoms of a concussion often last for 7 – 10 days, but may last longer in children and adolescents[5].

Step 1 – Return to Learn/Return to Physical Activity

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 sample "Appendix C-4 – Sample Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan") either that:

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

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 Step 2a – Return to Learn **or** Step 2b – Return to Learn, as appropriate), one school staff (i.e. a member of the

[5] McCrory P., Johnston K., Meeuwisse W., et al. (2005). Summary and agreement statement of the 2nd International Conference on Concussion in Sport, Prague 2004. *British Journal of Sports Medicine. 39*(4), 196-204, as cited in McCrory P. el al. (2013). Consensus statement con concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012. *British Journal of Sports Medicine, 47*(5), 250-258.

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collaborative team, either the school principal or another staff person designated by the school principal) needs to serve 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.

Step 2a – Return to Learn

A student with symptoms that are improving, but who is not yet symptom free, may return to school and begin Step 2a – Return to Learn.

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/Approaches). 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[6].

[6] 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

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TABLE 2: Return to Learn Strategies/Approaches[7]

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 pace with work demands	• 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

[7] 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

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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

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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."[8]

Parent/Guardian:

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

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

A student who:

- has progressed through Step 2a – Return to Learn and is now symptom free may proceed to Step 2b – Return to Learn; or,
- becomes symptom free soon after the concussion may begin at Step 2b – Return to Learn (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 Step 2 – Return to Physical Activity.

Note: Since concussion symptoms can reoccur during cognitive and physical activities, students at Step 2b – Return to Learn 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 "Appendix

[8] 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

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C-4 – Sample Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan") before the student can return to school**.**

Step 2 – Return to Physical Activity

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., see "Appendix C-4 – Sample Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan") that the student continues to be symptom free in order for the student to proceed to Step 3.

Step 3 – Return to Physical Activity

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

Step 4 – Return to Physical Activity

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

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Teacher:

Communicates with parents/guardians that the student has successfully completed Steps 3 and 4 (see "Appendix C-4 – Sample Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan")

Parent/Guardian:

Must provide the school principal with written documentation from a medical doctor or nurse practitioner (e.g., completed "Appendix C-4 – Sample Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan") 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 Step 5 – Return to Physical Activity.

School Principal:

Written documentation (e.g., "Appendix C-4 – Sample Documentation for a Diagnosed Concussion – Return to Learn/Return to Physical Activity Plan") is then filed (e.g., in the student's OSR) by the school principal.

Step 5 – Return to Physical Activity

Activity: Full participation in regular physical education/intramural/interschool activities in non-contact sports. Full 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

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

Activity: Full participation in contact sports
Restrictions: None

For a single-page, electronic 11" x 17" version of the chart, please email safety@ophea.net.

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CHART 1: Steps and Responsibilities in Suspected and Diagnosed Concussions

Student:
receives a blow to the head, face or neck, or a blow to the body that transmits a force to the head, and as a result may have suffered a concussion

Student: CONSCIOUS

Student: UNCONSCIOUS

Teacher/coach/supervisor:
Stop activity - initiate emergency action plan

Teacher/coach/supervisor:
Stop activity - initiate emergency action plan and call 911

Teacher/coach/supervisor:
Conduct initial concussion assessment (e.g., Appendix C-2 - Sample Tool to Identify Suspected Concussion)

Student: Concussion NOT Suspected

Student: Concussion Suspected

Student:
may resume full participation in physical activity

Student:
does not return to play that day

Teacher/coach/supervisor:
contact parent/guardian and provide information of the injury and importance of continued monitoring (e.g., Appendix C-2)

Teacher/coach/supervisor:
contact parent/guardian re: the injury and of the need to pick up the student. Provide information on the the injury and form to document medical examination (e.g., Appendix C-2, and Appendix C-3 - Sample Documentation of Medical Examination; inform principal of suspected concussion)

Parent/guardian:
Continued monitoring for 24-48 hours

Parent/guardian:
informed that student is to be examined by medical doctor or nurse practitioner as soon as possible that day

***Principal** informs school staff of suspected concussion*

Student:
CONCUSSION DIAGNOSED

***Parent/guardian**: report to school principal outcome of medical examination (e.g, Appendix C-3)*

***Principal** provides parent/guardian with form (e.g., Appendix C-4 - Sample Documentation for a Diagnosed Concussion - Return to Learn/Return to Physical Activity Plan)*

Signs and/or Symptoms Present

***Principal** informs school staff of concussion and establishes collaborative team identifying designated school staff lead*

***Parent/guardian**: report back to school principal (e.g., Appendix C-4 - Sample Documentation for a Diagnosed Concussion - Return to Learn/Return to Physical Activity Plan: Step 1)*

Student is monitored for the return of concussion signs and/or symptoms and/or deterioration of work habits or performance. If at any time concussion signs and/or symptoms return and/or deterioration of work habits or performance occurs, the student must be examined by a medical doctor or nurse practitioner who will determine which step in the Return to Learn/Return to Physical Activity process the student must return to using Appendix C-4: Return of Symptoms

Return to Learn/Return to Physical Activity - Step 1 (home)
Student: complete cognitive and physical rest

Student:
Returns to School

Symptoms are Improving

Return to Learn - Step 2a (with symptoms)
Student: requires individualized classroom strategies and/or approaches, see Appendix C-1, TABLE 2: Return to Learn Strategies

Symptom Free

***Parent/guardian**: report back to school principal student progress through Step 2a (e.g., Appendix C-4: Step 2a)*

Return to Learn - Step 2b (symptom free)
Student: begins regular learning activities

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Return to Physical Activity - Step 2 (home)
Student: individual light aerobic physical activity only

***Parent/guardian**: report back to school principal student progress through Step 2b/ Step2 (e.g., Appendix C-4: Step 2b/Step 2)*

Return to Physical Activity - Step 3 (school)
Student: individual sport specific physical activity only

Return to Physical Activity - Step 4 (school)
Student: activity with no body contact

***Parent/guardian**: report back to school principal - include written documentation from medical doctor or nurse practitioner to indicate the student remains symptom free and able to return to full participation (e.g., Appendix C-4: Step 4)*

***Teacher**: inform parent of completion of Step 4 (e.g., Appendix C-4: Step 4)*

Return to Physical Activity - Step 5 (school)
Student: full participation in non-contact sports - full training for all sports

Return to Physical Activity - Step 6 (school)
Student: full participation in all physical activity (including contact sports)

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