

CONCUSSION DIAGNOSIS AND MANAGEMENT

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POLICY

Heartland Forest will follow the Ontario Physical Education Safety Guidelines in regards to diagnosing and managing concussion.

PURPOSE

To ensure proper and immediate care of all persons who have or are suspected to have a concussion while on Heartland Forest property.

SCOPE

This policy applies to all employees, volunteers and students in a supervisory role over other employees, volunteers and students.

CONTEXT

Recent research has made it clear that a concussion can have a significant impact on a persons cognitive and physical ability. Without identification and proper management, a concussion can result in permanent brain damage and in rare occasions, even death.

Research also suggests that a person 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.

Program facilitators play a crucial role in the identification of a suspected concussion

as well as the ongoing monitoring and management of a person with a concussion. Awareness of the signs and symptoms of concussion and knowledge of how to properly manage a diagnosed concussion is critical in a person's recovery and is essential in helping to prevent the person from returning to physical activities too soon and risking further complications. Ultimately, this awareness and knowledge could help contribute to the persons long-term health success.

ROLES, RESPONSIBILITIES AND PROCEDURE

Each January the Policy will be reviewed by the Board of Directors; any updates will be made at that time.

For a visual overview of the steps and role responsibilities in suspected and diagnosed concussions, see Chart 1 (page 15 and 16 of this policy).

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CONCUSSION DIAGNOSIS

A concussion is a clinical diagnosis made by a medical doctor or nurse practitioner. It is critical that any person with a suspected concussion be examined by a medical doctor or nurse practitioner.

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 in TABLE 1.

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 child or person with special needs may be reluctant to report symptoms because of a fear that he/she will be removed from the activity, or participation could be impacted.
- It may be difficult for younger children (under the age of 10), children with special needs or children for whom English is not their first language to communicate how they are feeling.
- Signs for younger children (under the age of 10) may not be as obvious as in older children.

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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, employee, volunteer, peer).	Possible Symptoms Reported: a symptom is something the person with a possible concussion will feel/report.
<p>Physical</p> <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 <p>Cognitive</p> <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) <p>Emotional/Behavioural</p> <ul style="list-style-type: none"> • Strange or inappropriate emotions (e.g., laughing, crying, getting angry easily) 	<p>Physical</p> <ul style="list-style-type: none"> • 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 <p>Cognitive</p> <ul style="list-style-type: none"> • difficulty concentrating or remembering • slowed down, fatigue or low energy • dazed or in a fog <p>Emotional/Behavioural</p> <ul style="list-style-type: none"> • irritable, sad, more emotional than usual • nervous, anxious, depressed <p>Sleep Disturbance</p> <ul style="list-style-type: none"> • drowsy

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Sleep Disturbance <ul style="list-style-type: none">• Drowsiness• insomnia	<ul style="list-style-type: none">• sleeping more/less than usual• difficulty falling asleep
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INITIAL RESPONSE: IDENTIFICATION

If a person 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. program facilitator, program support staff) responsible for that person must take immediate action as follows:

Unconscious Person (or where there was any loss of consciousness)

- Stop the activity immediately – assume there is a concussion.
- Initiate Emergency Action Plan and call 911. Do not move the person.
- Assume there is a possible neck injury and, only if trained, immobilize the person before emergency medical services arrive.
 - Do not remove athletic equipment (e.g., helmet) unless there is difficulty breathing.
- Stay with the person until emergency medical services arrive.
- Contact the persons parent/legal 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 child.
- If the person regains consciousness, encourage him/her to remain calm and to lie still. Do not administer medication (unless the person requires medication for other conditions – e.g., insulin for a person with diabetes).

Conscious Person

- Stop the activity immediately.
- Initiate Emergency Action Plan.
- When the person can be safely moved, remove him/her from the current activity or game.
- Conduct an initial concussion assessment of the person (i.e., using “TABLE 1: Common Signs and Symptoms of a Concussion”):

If sign(s) are observed and/or symptom(s) are reported and/or the person fails a quick memory function assessment consisting of 5 simple questions related to time, location and or names that person should easily know the answers to:

Supervisor Response

- A concussion should be suspected – do not allow the participant to return to the activity or game even if the participant states that he/she is feeling better.

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- Contact the participant's parent/legal guardian (or emergency contact) to inform them:

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- of the incident;
- that they need to come and pick up the participant; and,
- that the participant 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 participant. If any signs or symptoms worsen, call 911. Refer to incident report form for documentation procedures.
- Do not administer medication (unless the participant requires medication for other conditions – e.g., insulin for a person with diabetes).
- Stay with the participant until her/his parent/guardian (or emergency contact) arrives. The participant must not leave the premises without parent/guardian (or emergency contact) supervision.

Information to be provided to Parent/Legal Guardian

- provided with a copy of “TABLE 1: Common Signs and Symptoms of a Concussion” signed by the program supervisor.
- informed that the participant 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 Program Supervisor the results of the medical examination (i.e., the participant does not have a diagnosed concussion or the participant has a diagnosed concussion) prior to the participant returning to the program
 - If no concussion is diagnosed: the participant may resume regular activities.
 - If a concussion is diagnosed: the participant follows a medically supervised, individualized and gradual Return to Physical Activity Plan.

If signs are NOT Observed, symptoms are NOT reported AND the child passes the Quick Memory Function Assessment:

Supervisor response:

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

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Information to be provided to Parent/Legal Guardian

- provided with a copy of “TABLE 1: Common Signs and Symptoms of a Concussion” signed by the program supervisor; and, informed that:

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- signs and symptoms may not appear immediately and may take hours or days to emerge;
- the participant should be monitored for 24-48 hours following the incident; and,
- if any signs or symptoms emerge, the participant needs to be examined by a medical doctor or nurse practitioner as soon as possible that day.

Responsibilities of The Program Coordinator

Once a Participant has been identified as having a suspected concussion, the Program Coordinator must:

- inform all program employees, volunteers and students who work with the participant of the suspected concussion; and,
- indicate that the participant shall not participate in any physical activities until the parent/legal guardian communicates the results of the medical examination (i.e., the participant does not have a diagnosed concussion or the participant has a diagnosed concussion) to the Program Coordinator by returning a note signed and dated by the parent/legal guardian).

Once the parent/legal guardian has informed the Program Coordinator of the results of the medical examination, the Program Coordinator must:

- inform all program employees, volunteers and students who work with the participant of the diagnosis; and,
- file written documentation (e.g. parent's note) of the results of the medical examination. Notes may be filed in participants active files, if an active file does not exist for a participant it may be stapled to the incident report.

DOCUMENTATION OF MEDICAL EXAMINATION:

Prior to a participant with a suspected concussion returning to program, the parent/legal guardian must communicate the results of the medical examination (i.e., participant does not have a diagnosed concussion or the participant has a diagnosed concussion) to the Program Coordinator by returning a note signed and dated by the parent/legal guardian.

- If no concussion is diagnosed: the participant may resume regular physical activities.
- If a concussion is diagnosed: the participant follows a medically supervised, individualized and gradual Return to Activity Plan. The parent/legal guardian must inform Heartland Forest of the diagnosis.

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Return to Activity Plan

A person with a diagnosed concussion needs to follow a medically supervised, individualized and gradual Return to Physical Activity Plan. A person with a diagnosed concussion must be symptom free prior to returning to regular activities. The return to activity process follows an internationally recognized graduated stepwise approach.

Collaborative Team Approach:

It is critical to a participant's recovery that the Return to Activity Plan be developed through a collaborative team approach. Led by the Parents/Legal Guardians, the team should include:

- the concussed participant;
- her/his parents/legal guardians;
- Heartland Forest employees;
- program staff and volunteers who work with the child – in all community programs; 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 participant.

Completion of the Steps within the Plan:

The steps of the Return to Activity Plan may occur at home or at Heartland Forest as the program setting is typically short term.

The collaborative team must ensure that steps 1-4 of the Return to Activity Plan are completed. As such, written documentation from a medical doctor or nurse practitioner that indicates the participant is symptom free and able to return to full participation in physical activity must be provided by the participant's parent/legal guardian to the Program Coordinator to be kept on file.

It is important to note:

- Cognitive or physical activities can cause a participant'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 participant.
- The signs and symptoms of a concussion often last for 7 – 10 days, but may last longer in children and adolescents.

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Step 1 – Return to Activity

The participant does not attend programs 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 participant’s symptoms begin to improve; **OR**,
- the participant is symptom free;

as determined by the parents/legal guardians and the concussed child.

Parent/Legal Guardian:

Before the participant can return to programming, the parent/legal guardian must communicate to the program coordinator that:

- the participant is **symptom free** (and the participant will proceed directly to Step 2b – Return to Program and Step 2 – Return to Physical Activity).

The participant can only return to the program when they are symptom free as confirmed by the parent/legal guardian in a written note and signed off by documentation of medical examination.

Program staff will work the parent/legal guardian to ensure the safety of the participant.

Return to Program – Designated Heartland Forest Lead:

The designated Heartland Forest lead will monitor the participant’s progress through the Return to Program/Return to Physical Activity Plan. This may include identification of the participant’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 participant.

Step 2a – Return to Program

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

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During this step, the participant requires individualized in program strategies and/or approaches to return to activities - these will need to be adjusted as recovery occurs. At this step, the participant's cognitive activity should be increased slowly (both in program and at home), since the concussion may still affect his/her cognitive performance. Cognitive activities can cause a child's concussion symptoms to reappear or worsen.

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

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/Legal Guardian:

Must communicate to Heartland Forest's Program Coordinator that the child is symptom free before the child can proceed to Step 2b – Return to Program and Step 2 – Return to Physical Activity.

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TABLE 2: Return to Program Strategies/Approaches

COGNITIVE DIFFICULTIES		
Post Concussion Symptoms	Impact on Student's Learning	Potential Strategies and/or Approaches
Headache and Fatigue	Difficulty concentrating, paying attention or multitasking	<ul style="list-style-type: none"> ensure instructions are clear (e.g., simplify directions, have the participant repeat directions back to the program employees) allow the participant to have frequent breaks, or return to program gradually (e.g., 1-2 hours, half-days, late starts) keep distractions to a minimum (e.g., move the participant away from bright lights or noisy areas)
Difficulty remembering or processing speed	Difficulty retaining new information, remembering instructions, accessing learned information	<ul style="list-style-type: none"> provide a daily organizer and prioritize tasks provide visual aids/cues and/or advance organizers (e.g., visual cueing, non-verbal signs) divide large tasks into smaller tasks repeat instructions
Difficulty paying attention/ concentrating	Limited/short-term focus. Difficulty maintaining or keeping pace with work demands	coordinate assignments and projects among all programs: <ul style="list-style-type: none"> extend deadlines or break down tasks provide alternate assignments and/or tests check frequently for comprehension

EMOTIONAL/BEHAVIOURAL DIFFICULTIES		
Post Concussion Symptoms	Impact on Student's Learning	Potential Strategies and/or Approaches

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Anxiety	Decreased attention/concentration Overexertion to avoid falling behind	<ul style="list-style-type: none"> inform the participant of any changes in the daily timetable/schedule adjust the participants schedule as needed to avoid fatigue (e.g., 1-2 hours/periods, half-days, full-days) build in more frequent breaks during the day provide the participant with preparation time to respond to questions
Irritable or Frustrated	Inappropriate or impulsive behaviour during class	<ul style="list-style-type: none"> encourage program supports to use consistent strategies and approaches acknowledge and empathize with the participants frustration, anger or emotional outburst if and as they occur reinforce positive behaviour provide structure and consistency on a daily basis prepare the participant for change and transitions set reasonable expectation anticipate and remove the participant from a problem situation (without characterizing it as punishment)
Light/Noise Sensitivity	Difficulties working in certain environments (e.g., lights, noise, etc.)	<ul style="list-style-type: none"> arrange strategic seating (e.g., move the participant 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 avoid noisy crowded environments

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		<ul style="list-style-type: none"> • allow the student to eat lunch in a quiet area • where possible provide ear plugs/headphones, sunglasses
Depression/ Withdrawal	Withdrawal from participation in activities or with friends	<ul style="list-style-type: none"> • partner participants with a “buddy” for activities

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

A Participant who:

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

At this step, the participant begins regular learning activities without any individualized program 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, participants at Step 2b – Return to Program or any of the following return to physical activity steps must continue to be closely monitored by the designated Heartland Forest lead and collaborative team for the return of any concussion symptoms and/or a deterioration of habits and performance.

- If, at any time, concussion signs and/or symptoms return and/or deterioration of habits or performance occur, the participant must be examined by a medical doctor or nurse practitioner.
- The parent/legal guardian must communicate the results and the appropriate step to resume the Return to Program/Return to Physical Activity Plan to the Program Coordinator before the participant can return to the program.

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 participants. No drills. No body contact.

Objective: To increase heart rate

Parent/Guardian:

Must report back to the Program Coordinator that the participant continues to be symptom free in order for the participant to proceed to Step 3.

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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

Heartland Forest Designated Employee(s):

Communicates with parents/guardians that the student has successfully completed Steps 3 and 4

Parent/Guardian:

Must provide the Program Coordinator with written documentation from a medical doctor or nurse practitioner that indicates the participant is symptom free and able to return to full participation in physical activity in order for the participant to proceed to Step 5 – Return to Physical Activity.

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

See Chart 1 (pages 15-16 of this policy) for a visual overview of the steps and role responsibilities in suspected and diagnosed concussions as prepared by the Ministry of Education.

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DEFINITIONS

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.

COMMUNICATION

The policy will be accessible in the Office Administration Area of the Nature Centre, and will be accessible on the Heartland Forest website.

TRAINING/IMPLEMENTATION

At time of orientation the facilitator will review this policy with all new team members. Team members who are responsible for the direct supervision of programs will review this policy annually.

EVALUATION

Risk assessments, completed annually by the Health and Safety Representative will be reviewed by the Health and Safety Representative and the Executive Team.

FORMS

Incident Reports

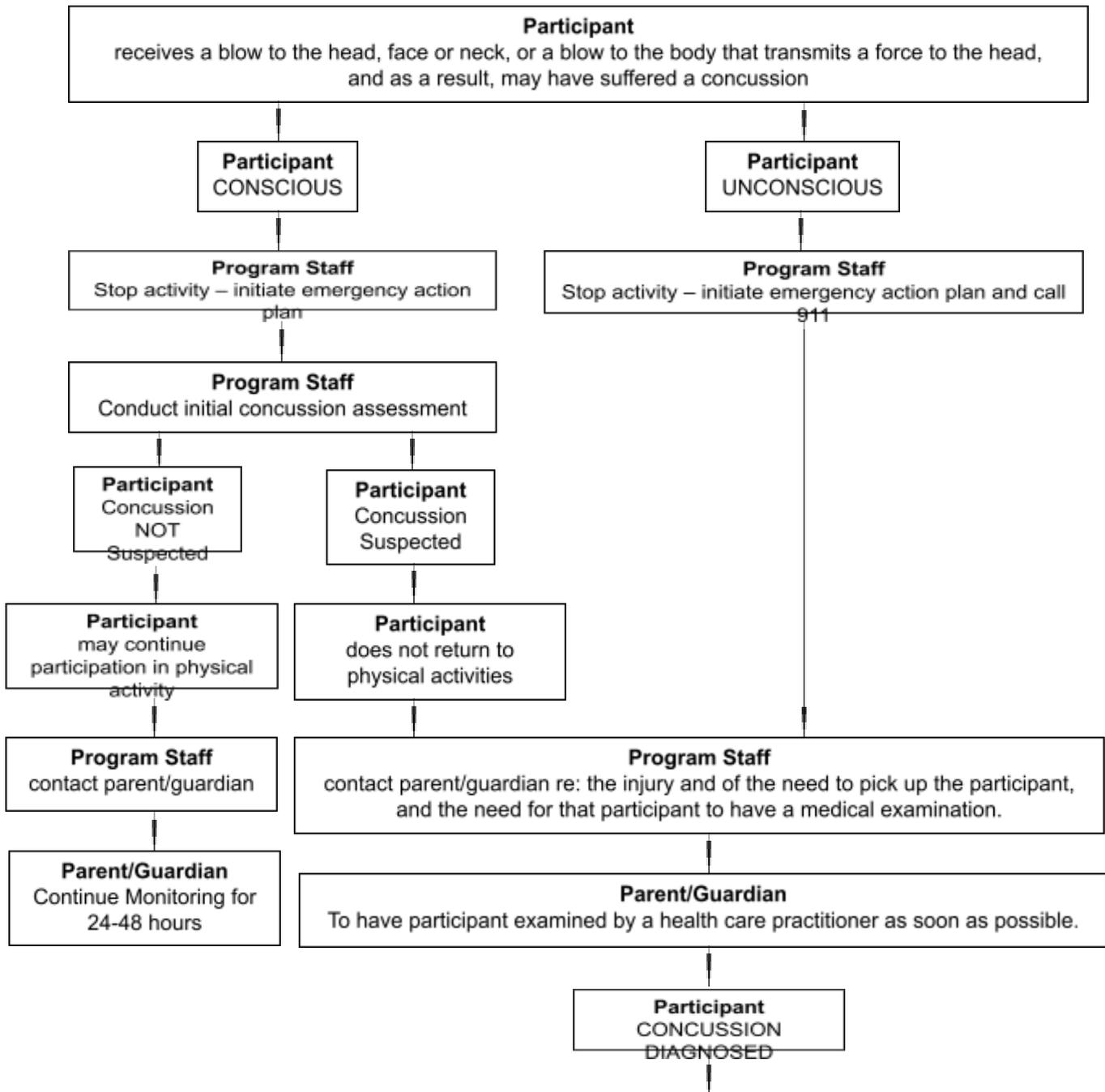
REFERENCES

Ontario Physical Education Safety
Healthy Schools and Healthy Communities

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Chart 1 Steps and Responsibilities in Suspected and Diagnosed Concussions



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Signs and/or Symptoms Present

Return to Program/Return to Physical Activity – Step 1 (home)
Participant: complete cognitive and physical rest

Participant
Return to Program

Symptoms are Improving

Participant 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 participant must be examined by a medical doctor or nurse practitioner who will determine which step in the Return to Program/Return to Physical Activity process the student must return to using

Return to Program Step 2a
Participant: individual light aerobic physical activity only

Symptom Free

Return to Program Step 2b (symptom free)
Participant: begins regular activities

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

Return to Physical Activity – Step 3 (Heartland Forest)
Participant: individual sport specific physical activity only

Return to Physical Activity – Step 4 (Heartland Forest)
Participant: activity with no body contact

Return to Physical Activity – Step 5 (Heartland Forest)
Participant: full participation in non-contact sports

