

**St. James-Assiniboia School Division**  
**CONCUSSION PROTOCOL**





# SJASD CONCUSSION PROTOCOL

St. James-Assiniboia School Division has developed the St. James-Assiniboia School Division Concussion Protocol to help guide the management of students who sustain a suspected concussion as a result of participation in St. James-Assiniboia School Division activities.

## Purpose

This protocol covers the recognition, medical diagnosis, and management of students who may sustain a suspected concussion during a school activity. It aims to ensure that students with a suspected concussion receive timely and appropriate care and proper management to allow them to return to their school activities and sports safely. This protocol may not address every possible clinical scenario that can occur during St. James-Assiniboia School Division activities, but includes critical elements based on the latest evidence and current expert consensus.

## Application to non-sport related concussion

This guideline has been adapted from the [Canadian Guideline on Concussion in Sport \(http://www.parachutecanada.org/injury-topics/item/canadian-guideline-on-concussion-in-sport\)](http://www.parachutecanada.org/injury-topics/item/canadian-guideline-on-concussion-in-sport). The management principles described in these guidelines should also be applied to children and adolescents who sustain a concussion outside of school-related activities and are returning to school and school sports.

## Who should use this protocol?

This guideline is intended for use by all individuals who interact with students inside and outside the context of school and non-school based activities, and organized sports activity, including students, parents, coaches, officials, teachers, trainers, and licensed healthcare professionals.

## Recommendations

### 1. Pre-Season Education

Despite recent increased attention focusing on concussion, there is a continued need to improve concussion education and awareness. Optimizing the prevention and management of concussion depends highly on annual education of all sport stakeholders (students, parents, coaches, officials, teachers, trainers, licensed healthcare professionals) on current evidence-informed approaches that can prevent concussion and more serious forms of head injury and help identify and manage a student with a suspected concussion. Concussion education should include information on:

- the definition of concussion
- possible mechanisms of injury
- common signs and symptoms



## ST. JAMES-ASSINIBOIA SCHOOL DIVISION CONCUSSION PROTOCOL

- steps that can be taken to prevent concussions and other injuries from occurring in sport
- what to do when an athlete has suffered a suspected concussion or more serious head injury
- what measures should be taken to ensure proper medical assessment
- *Return-to-School and Return-to-Sport Strategies*
- Return-to-Sport medical clearance requirements.

**Who:** Students, parents, coaches, officials, teachers, and trainers, licensed healthcare professionals

**How:** [Canadian Guideline on Concussion in Sport Pre-season Concussion Education Sheet](#)

All St. James-Assiniboia School Division students and their parents are encouraged to review the Canadian Guideline on Concussion in Sport Pre-season Concussion Education Sheet prior to the first day of school. In addition to reviewing information on concussion, it is also important that all sport stakeholders have a clear understanding of the [St. James-Assiniboia School Division Concussion Protocol](#) found on the [sjasd.ca](http://sjasd.ca) website.

### 2. Head Injury Recognition

Although the formal diagnosis of concussion should be made following a medical assessment, all school and sport stakeholders including students, parents, teachers, coaches, teachers, officials, and licensed healthcare professionals are responsible for the recognition and reporting of students who may demonstrate visual signs of a head injury or who report concussion-related symptoms. This is particularly important because many sport, education and recreation venues will not have access to on-site licensed healthcare professionals.

#### **A concussion should be suspected:**

- If any student who sustains a significant impact to the head, face, neck, or body and demonstrates ANY of the visual signs of a suspected concussion or reports ANY symptoms of a suspected concussion as detailed in the Concussion Recognition Tool 5.
- If any student reports ANY concussion symptoms to one of their peers, parents, teachers, or coaches or if anyone witnesses a student exhibiting any of the visual signs of concussion.

In some cases, a student may demonstrate signs or symptoms of a more severe head or spine injury including convulsions, worsening headaches, vomiting or neck pain.

If a student demonstrates any of the 'Red Flags' indicated by the Concussion Recognition Tool 5, a more severe head or spine injury should be suspected.



**Who:** Students, parents, coaches, officials, teachers, trainers, and licensed healthcare professionals.

**How:** Concussion Recognition Tool 5

### 3. Onsite Medical Assessment

Depending on the suspected severity of the injury, an initial assessment may be completed by emergency medical professionals or by an on-site licensed health professional where available.

#### 3.1. Emergency Medical Assessment

If a St. James-Assiniboia School Division student is suspected of sustaining a more severe head or spine injury during a game, practice, or other school activity, an ambulance should be called immediately to transfer the student to the nearest emergency department for further Medical Assessment. Coaches, parents, teachers, trainers and officials should not make any effort to remove equipment or move the student until an ambulance has arrived and the student should not be left alone until the ambulance arrives. After the emergency medical services staff has completed the Emergency Medical Assessment, the student should be transferred to the nearest hospital for Medical Assessment. In addition, the student's parents should be contacted immediately to inform them of the student's injury.

**Who:** Emergency medical professionals

#### 3.2. Sideline Medical Assessment

If a St. James-Assiniboia School Division student is suspected of sustaining a concussion and there is no concern for a more serious head or spine injury, the student should be immediately removed from the field of play or setting in which the injury occurred. If a licensed healthcare professional is present, the student should be taken to a quiet area and undergo Sideline Medical Assessment using:

- Sport Concussion Assessment Tool-5 (SCAT5)
- Child SCAT5

The SCAT5 and Child SCAT5 are clinical tools that should **only** be used by a **licensed medical professional** that has experience using these tools. It is important to note that the results of SCAT5 and Child SCAT5 testing can be normal in the setting of acute concussion. As such, these tools can be used by licensed healthcare professionals to document initial neurological status but should not be used to make sideline return-to-sport decisions in St. James-Assiniboia School Division student-athletes. Any student who is suspected of having sustained a concussion must not return to the game, practice, or phys. ed. class and must be referred to a medical doctor, nurse practitioner or physician assistant for Medical Assessment.



If a student is removed from play or an activity following a significant impact but there are NO visual signs of a concussion and the student reports NO concussion symptoms then the student can be returned to play or that activity but should be monitored for delayed symptoms.

**Who:** Athletic therapists, physiotherapists, medical doctor

**How:** Sport Concussion Assessment Tool 5 (SCAT5), Child Sport Concussion Assessment Tool 5 (Child SCAT5)

#### 4. Medical Assessment

In order to provide comprehensive evaluation of students with a suspected concussion, the Medical Assessment must rule out more serious forms of traumatic brain and spine injuries, must rule out medical and neurological conditions that can present with concussion-like symptoms, and must make the diagnosis of concussion based on findings of the clinical history and physical examination and the evidence-based use of adjunctive tests as indicated (i.e. CT scan). In addition to nurse practitioners and physician assistants, medical doctors<sup>1</sup> that are qualified to evaluate patients with a suspected concussion include pediatricians, family medicine, sports medicine, emergency department and rehabilitation (physiatrists) physicians as well as neurologists and neurosurgeons. In geographic regions of Manitoba with limited access to medical doctors (i.e. rural or northern communities), a licensed healthcare professional (i.e. nurse) with pre-arranged access to a medical doctor or nurse practitioner can facilitate this role. The Medical Assessment is responsible for determining whether the student has been diagnosed with a concussion or not. St. James-Assiniboia School Division students with a diagnosed concussion should be provided with a Canadian Guideline on Concussion in Sport Medical Assessment Letter indicating a concussion has been diagnosed. Students that are determined to have not sustained a concussion must be provided with a Medical Assessment Letter indicating a concussion has not been diagnosed and the student can return to school, work and sports activities without restriction.

**Who:** Medical doctor, nurse practitioner, physician assistant, nurse

**How:** Canadian Guideline on Concussion in Sport Medical Assessment Letter

<sup>1</sup> Medical doctors, nurse practitioners, and physicians are the only healthcare professionals in Manitoba with licensed training and expertise to meet these needs; therefore, all athletes with a suspected concussion should undergo evaluation by one of these professionals.

#### 5. Concussion Management

When a St. James-Assiniboia School Division student has been diagnosed with a concussion, it is important that the student's parent/legal guardian is informed. All St. James-Assiniboia School Division student-athletes diagnosed with a concussion must be provided with a standardized Canadian Guideline on Concussion in Sport Medical Assessment Letter that notifies the student and their parents/legal guardians/spouse that



they have been diagnosed with a concussion and may not return to any activities with a risk of concussion until medically cleared to do so by a medical doctor or nurse practitioner. Because the Medical Assessment Letter contains personal health information, it is the responsibility of the student or their parent/legal guardian to provide this documentation to the student’s coaches, teachers, or employers. It is also important for the student to provide this information to sport or school organization officials that are responsible for injury reporting and concussion surveillance where applicable.

St. James-Assiniboia School Division students diagnosed with a concussion should be provided with education about the signs and symptoms of concussion, strategies about how to manage their symptoms, the risks of returning to sport without medical clearance and recommendations regarding a gradual return to school and sport activities. Students diagnosed with a concussion are to be managed according to their Return-to-School and Sport-Specific Return-to-Sport Strategy under the supervision of a medical doctor, nurse practitioner or physician assistant. When available, student-athletes should be encouraged to work with the team athletic therapist or physiotherapist to optimize progression through their Sport-Specific Return-to-Sport Strategy. Once student-athletes have completed their Return-to-School and Sport-Specific Return-to-Sport Strategy and are deemed to be clinically recovered from their concussion, the medical doctor or nurse practitioner can consider the athlete for a return to full sports activities.

**Return-to-School Strategy**

The following is an outline of the Return-to-School Strategy that should be used to help students, parents, and teachers to collaborate in allowing the student-athlete to make a gradual return to school activities. Depending on the severity and type of symptoms present, students will progress through the following stages at different rates. If the student experiences new symptoms or worsening symptoms at any stage, they should go back to the previous stage.

Stage	Aim	Activity	Goal of each step
1	Daily activities at home that do not give the student-athlete symptoms	Typical activities of the child during the day as long as they do not increase symptoms (i.e. reading, texting, screen time) Start at 5-15 minutes at a time and gradually build up	Gradual return to typical activities
2	School activities	Homework, reading or other cognitive activities outside of the classroom	Increase tolerance to cognitive work
3	Return to school part-time	Gradual introduction of schoolwork. May need to start with a partial school day or with increased breaks during the day	Increase academic activities
4	Return to school full-time	Gradually progress	Return to full academic activities and catch up on missed school work



**Return-to-Sport Strategy**

The following is an outline of the Return-to-Sport Strategy that should be used to help student-athletes, coaches, trainers, teachers and medical professionals to partner in allowing the student-athlete to make a gradual return to sport activities.

An initial period of 24-48 hours of rest is recommended before starting the Sport- Specific Return-to-Sport Strategy. If the student-athlete experiences new symptoms or worsening symptoms at any stage, they should go back to the previous stage. It is important that student-athletes return to full-time school activities before progressing to Stage 5 and 6 of the Sport-Specific Return-to-Sport Strategy.

It is also important that all St. James - Assiniboia School Division student-athletes provide their teacher/coach/school with a Canadian Guideline on Concussion in Sport Medical Clearance Letter prior to returning to full sports contact activities.

Stage	Aim	Activity	Goal of each step
1	Symptom-limiting activity	Daily activities that do not provoke symptoms	Gradual reintroduction of work/school activities
2	Light aerobic activity	Walking or stationary cycling at slow to medium pace. No resistance training	Increase heart rate
3	Sport-specific exercise	Running or skating drills. No head impact activities	Add movement
4	Non-contact training drills	Harder training drills, i.e. passing drills. May start progressive resistance training	Exercise, coordination and increased thinking
5	Full contact practice	Following medical clearance	Restore confidence and assess functional skills by coaching staff
6	Return to sport	Normal game play	

**Who:** Medical doctor, nurse practitioner, physician assistant and team athletic therapist or physiotherapist (where available)

**How:** Return-to-Learn Strategy, Sport-Specific Return-to Sport Strategy, Canadian Guideline on Concussion in Sport Medical Assessment Letter, Canadian Guideline on Concussion in Sport Medical Clearance Letter

**6. Multidisciplinary Concussion Care**

Most children and adolescents who sustain a concussion while participating in sport will make a complete recovery and be able to return to full school and sport activities within



one to four weeks of injury. However, some individuals will experience symptoms that persist beyond this period. St. James-Assiniboia School Division students who experience persistent post-concussion symptoms (>4 weeks) may benefit from their family doctor or pediatrician making a referral to the Pan Am Concussion Program, a medically-supervised multidisciplinary concussion clinic that has access to professionals with licensed training in traumatic brain injury that include experts in neurosurgery, sport medicine, neuropsychology, physiotherapy, and neurology.

Referral to a multidisciplinary clinic for assessment should be made on an individualized basis at the discretion of the student's medical doctor or nurse practitioner.

**Who:** Multidisciplinary medical team, medical doctor with clinical training and experience in concussion (e.g. a sports medicine physician, neurologist, or rehabilitation medicine physician), licensed healthcare professionals.

### 7. Return to Sport

Student-athletes who have been determined not to have sustained a concussion and those that have been diagnosed with a concussion and have successfully completed their Return-to-School and Sport-Specific Return-to-Sport Strategy, can be considered for return to full sports and school activities. The final decision to medically clear a student-athlete to return to full game and school activity should be based on the clinical judgment of the medical doctor or nurse practitioner taking into account the student's past medical history, clinical history, physical examination findings and the results of other tests and clinical consultations where indicated (i.e. neuropsychological testing, diagnostic imaging). Prior to returning to full contact practice and game play, each student athlete that has been diagnosed with a concussion must provide their coach/ teacher/school with a standardized Canadian Guideline on Concussion in Sport Medical Clearance Letter that specifies that a medical doctor, nurse practitioner, or physician assistant has personally evaluated the athlete and has cleared the athlete to return to sports.

A copy of the Canadian Guideline on Concussion in Sport Medical Clearance Letter should also be submitted to sports organization/school officials that have injury reporting and surveillance programs where applicable.

St. James-Assiniboia School Division student-athletes who have been provided with a Medical Clearance Letter may return to full sport and school activities as tolerated. If the student experiences any new concussion-like symptoms while returning to play, they should be instructed to stop playing immediately, notify their parents, coaches, trainer or teachers, and undergo follow-up Medical Assessment. In the event that the student sustains a new-suspected concussion, the ST. JAMES-ASSINIBOIA SCHOOL DIVISION CONCUSSION PROTOCOL should be followed as outlined here.

**Who:** Medical doctor, nurse practitioner, physician assistant

**Document:** Canadian Guideline on Concussion in Sport Medical Clearance Letter. For more information on concussion and to download the Concussion Recognition Tool 5 please visit <http://www.parachutecanada.org/downloads/resources/CRT5.pdf> .





### CONCUSSION PROTOCOL ADMINISTRATIVE PROCESS

St. James - Assiniboia Division has developed the SJASD Concussion Protocol to help guide the management of students who sustain a suspected concussion as a result of participation in SJASD school and sport activities. The Concussion Protocol Administrative Process is meant to provide direction to schools about the necessary steps to ensure the Concussion Protocol is appropriately followed. Please note that only medical professionals can diagnose concussion. The role for SJASD staff is to optimize the prevention and management of concussion.

#### A. CONCUSSION PROTOCOL – EDUCATION

1. All students attending a SJASD school and their parents are encouraged to review the [Canadian Guidelines on Concussion in Sport Pre-Season Concussion Education](#) sheet at the beginning of the school year. In addition, **ALL** students that are participating in extracurricular activities are **required** to attend an information session provided by the school to review the concussion protocol. This information session can be delivered in a variety of ways including but not limited to; grade level meetings and team presentations. What format this information session takes, can be determined by the school administration, teachers and coaches. The school must ensure that all students have received clear direction on the SJASD Concussion Protocol.
2. The Principal will include a reminder to parents and staff/volunteers at the start of the school year to review the SJASD Concussion Protocol located on our website.
3. Concussion education should include information on:
  - a. The definition of concussion
  - b. Possible mechanisms of injury
  - c. Common signs and symptoms
  - d. Steps that can be taken to prevent concussions and other injuries from occurring in sport or other activities
  - e. What to do when an athlete or student has suffered a suspected concussion or more serious head injury
  - f. What measures should be taken to ensure proper medical assessment
  - g. Return-to-School and Return-to-Sport strategies
  - h. Return-to-Sport medical clearance requirement.

#### B. CONCUSSION PROTOCOL – IMMEDIATE ACTION

In the event that a SJASD student is suspected to have sustained a head injury or concussion, the following procedures must be followed:

1. If any student is suspected of sustaining a severe head or spinal injury during a SJASD activity or develops symptoms of a concussion during a SJASD activity, the attending teacher/coach/volunteer must immediately contact the student's parent/guardian and call an ambulance to transfer the student to Children's



## ST. JAMES-ASSINIBOIA SCHOOL DIVISION CONCUSSION PROTOCOL

Hospital Emergency Department or the nearest hospital for Medical Assessment. If any student develops symptoms several hours later, the attending teacher/coach/volunteer must immediately contact the student's parent/guardian and advise them to seek immediate medical assessment.

2. Head Injury Recognition
3. Onsite Medical Assessment
  - a. Emergency Medical Assessment
  - b. Sideline Medical Assessment
4. Medical Assessment.
5. The attending teacher/coach/volunteer must complete an accident report and report to the school Principal the injury/incident and actions taken within four (4) hours of the incident.
6. The Principal or designate will establish a Concussion Protocol file for the student:
  - a. Advise student's parent/legal guardian and provide them with a copy of the [Medical Assessment Letter](#) and the [Medical Clearance Letter](#). If the student is in CFS care or living in a group home, letters should be sent to the primary contact.
  - b. Enter this medical intervention into the PowerSchool Medical Alert Box and place a copy in the URIS file.
  - c. The Medical Clearance Letter is to be placed in the student's URIS file.
  - d. This information remains in the student's file throughout their career with SJASD as it informs future staff about a student's history with concussion.

### C. CONCUSSION PROTOCOL – NEXT STEPS

In the event that a SJASD student is diagnosed by a medical professional with a concussion, the Return-to-School and Return-to-Sports strategies in the SJASD Concussion protocol are to be followed:

1. The student or their parent/legal guardian will provide a copy of the Medical Assessment Letter/Medical Clearance Letter, completed by a medical doctor, nurse practitioner, or physician assistant, to the student's school office. They should also provide a copy of the letter(s) to coaches of non-school sports.
2. The school office will add a copy of the letter(s) to the student's Concussion Protocol file in their URIS file.



3. The Principal or designate will activate the Return-to-School and Return-to-Sport Strategies, meeting with the student and/or parent/legal guardian to schedule regular progress reports. During this time the student will be provided with education about the signs and symptoms of concussion, strategies about how to manage their symptoms, the risks of returning to sport without medical clearance and recommendations regarding a gradual return to school and sports activities. (Refer to SJASD Concussion Protocol point 5, **Concussion Management**, for resources) until the student has provided a Medical Clearance Letter completed by a medical doctor, nurse practitioner, or physician assistant. This letter allows the student to return to full academic activities and school sports. The student should also provide a copy of the letter to coaches of non-school sports.
4. The Principal or designate will advise the student's teachers and school sports coaches on the student's progress through the Return-to-School and Return-to-Sports strategies.

---

### RESOURCES

#### Appendix A: 1 - Parent/Guardian Cover Letter

#### 2 - Medical Clearance Letter

#### 3 – Medical Assessment Letter

#### Appendix B: 1 - Pre-Season Education Sheet – Parachute

#### Appendix C: 1 – Concussion Guide for Teachers

#### 2 – Concussion Guide for Coaches

#### 3 – Concussion Guide for Athletes

LINKS for the following can be found at <http://www.parachutecanada.org/injury-topics/item/concussion-resources-for-schools>:

1. Canadian Guideline on Concussion in Sport
2. Concussion Recognition Tool 5 (CRT5)
3. Sport Concussion Assessment Tool 5 (SCAT5)
4. Child Sport Concussion Assessment Tool 5 (Child SCAT5)



### SJASD CONCUSSION PROTOCOL QUESTIONS AND ANSWERS

1. When the student returns to school to whom do they present the Medical Assessment Letter/Medical Clearance Letter?
  - a. Students should report to the Principal or designate at the school office with their medical assessment letter and later with their medical clearance letter.
2. Who will cover the medical professional's fee for signing the Medical Assessment and Medical Clearance letters?
  - a. According to the Canadian Guideline on Concussion in Sport, all Medical Assessment and Medical Clearance Letters should be provided to students without any charge.
3. If a student returns to school without having seen medical personnel, are we within our rights as a school to keep a student out of activities until a medical assessment letter has been provided?
  - a. The school is within its rights to keep a student out of activities until a medical assessment letter is provided. As stated in the protocol, all students with a suspected concussion must seek medical attention before returning to school and provide the school with a Medical Assessment Letter completed by a medical doctor, nurse practitioner, or physician assistant, before they can return to full academic activities and school sports.
4. When a student is on the Concussion Protocol, how is this information communicated with teachers/coaches/supervisors?
  - a. The principal or designate informs the student's teachers and school sports coaches. Information is also entered in PowerSchool and the student's URIS file.
5. What are the expected reporting and recording processes if a suspected concussion occurs during a school activity?
  - a. The supervising teacher/coach contacts the parents/guardian, completes an accident report and informs the Principal that a concussion protocol must be implemented.
6. What accommodations may need to be made for academic courses?
  - a. See "Return-to-School Strategy" SJASD Concussion Protocol Recommendation 5.
7. Who will ensure a student on the Concussion Protocol is provided with education about the signs and symptoms of concussion, strategies about how to manage their symptoms, etc.?
  - a. The Principal or designate who activates the Return-to-School and Return-to-Sport Strategies will include this education as part of the strategy, using the Canadian Guideline on Concussion in Sport as a tool.
8. What are the possible legal concerns a non-medical professional might face when



assessing a concussion?

- a. It is important to remember that the role of SJASD staff is to optimize the evaluation and management of concussions, not provide a diagnosis.
9. How will coaches report a possible concussion to the Principal or designate if it happens at a late evening or weekend game?
- a. Technology provides options to get this information to the Principal or designate— it's important that the Principal or designate be informed prior to the start of the next school day to ensure the student doesn't take part in activities that could put them at further risk of brain injury. The coach can send a message to the Principal or designate by email, text message, or voice mail.
10. What if the attending teacher/coach/volunteer does not think the student needs to seek medical attention after they have sustained a head or spinal injury?
- a. The SJASD Concussion Protocol errs on the side of caution to protect the student and the staff member. Individuals react differently to concussion and our role is not to diagnose. There may be underlying conditions or previous history that the attending teacher/coach/volunteer is unaware of, and they should not make an assumption. A medical professional is required to rule out serious medical concerns such as a trauma to the brain or spine.



### Additional Question and Answers from Parachute Canada

#### **What is a concussion?**

A concussion is a common form of head and brain injury, and can be caused by a direct or indirect hit to the head or body (for example, a car crash, and a fall or sport injury). This causes a change in brain function, which results in a variety of symptoms. With a concussion, there is no visible injury to the structure of the brain, meaning that tests like MRI or CT scans usually appear normal.

#### **What actually happens?**

When a person suffers a concussion, the brain suddenly shifts or shakes inside the skull. A hard hit to the body can result in an acceleration-deceleration injury to the brain. It is not yet known exactly what happens to brain cells in a concussion, but the mechanism appears to involve a change in chemical function.

#### **How do concussions occur?**

Most concussions occur as a result of a collision with another object while the object or person is moving at a high rate of speed. Forces such as these (and others) can result in deceleration and rotational concussive injuries.

#### **Whom to contact?**

It is important to seek medical advice immediately after a high impact hit to the head or body. Often, concussions can go untreated (and even unnoticed by others) because symptoms are often invisible to casual observers. Many times, the symptoms of a concussion may not be identified until the person recovers to the point where increased exertion causes symptoms to worsen.

Although symptoms may not be immediately apparent, it is important to be aware of possible physical, cognitive and emotional changes. Symptoms may actually worsen throughout the day of the injury or even the next day. Without proper management, a concussion can result in permanent problems and seriously affect one's quality of life.

Because a concussion affects the function of the brain, and can result in symptoms such as memory loss or amnesia, it is important that others be aware of the signs and symptoms of concussions in order to help identify the injury in others. Individuals should be removed immediately from the current activity (including sports, work and school), should not drive and seek medical attention immediately.

#### **Symptoms of a concussion**

Following a concussion, individuals may experience many different signs and symptoms. A symptom is something the athlete will feel, whereas a sign is something friends, family or a coach may notice. It is important to remember that some symptoms may appear right



away and some may appear later. No two concussions are the same. The signs and symptoms may be a little different for everyone. Some may be subtle and may go unnoticed by you as the injured person, co-workers, friends and family.

### **Screening and diagnosis**

Concussions can resolve fully with proper rest and management in a week or two, but concussions that are not diagnosed can lead to long term and more serious health implications. The first and most important step is to consult a medical doctor, nurse practitioner or physician assistant, preferably one familiar in concussion management.

There are many potential factors that may help to inform individual diagnosis, concussion management and recovery, although many of these are still being researched to find the exact link. For example, severity is likely impacted by a number of factors such as the person's history of previous head injuries, including number of past concussions, length of recovery time, timing between past concussions, age and style of play. Factors such as these can lead to a different, slower recovery, which is why it is important that concussion history be monitored.

Return to activity while still concussed and experiencing symptoms can lead to an increased risk for another concussion, more intense symptoms, and a prolonged recovery.

Diagnosing a concussion may take several steps. A doctor may ask questions about concussion and work/sport history, other recent injuries, and will conduct a neurological exam. This can include checking your memory and concentration, vision, coordination and balance. Further tests including a CT scan or MRI can be important to assess for other skull or brain injury but they do not inform concussion diagnosis. In the majority of concussions, there will not be any obvious damage found on these tests. Sometimes the role of neuropsychological testing is important in identifying subtle cognitive (e.g., memory, concentration) problems caused by the concussion and may at times help to plan return to pre-injury activity. In addition, balance testing may be required. Usually these are arranged by the concussion expert.

### **When should I return to activity?**

Working under the supervision of a doctor, concussed Individuals wishing to resume daily activities must follow the graduated stages of recovery as detailed within the "Return to School" (in case of students) and "Return to Sport" strategies. Concussed individuals must only return to normal daily activity after they have been cleared by their medical doctor, nurse practitioner or physician assistant. A concussed person should be removed from activity immediately and assessed by one of these medical professionals. Given that symptoms may worsen after the event, individuals should not return to activity until cleared to do so. When concussed, the ability to assess situations and events may be impaired. Post-concussive symptoms may intensify with an increase in activity, so it is important that return to activity is gradual and monitored/supervised by a medical professional as described above.



### Prevention

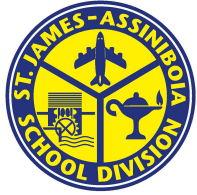
It is important to take a preventive approach when dealing with concussions. This is especially true after a recent concussion. Prevention of concussions and head injuries is most successful when teammates and colleagues are properly educated, the safety rules of the working, and sporting environment are enforced. Respect for the mutual safety of others must be highlighted. Because concussions are an invisible injury, it is important to share concussion information with others – to inform them of the injury and provide information education on concussions.

Protective equipment can reduce the risk and severity of head injury. It is important to have a good quality, properly fitted hard hat/helmet for work environments and collision sports. Safety procedures should be mandated on work sites and protective equipment should be certified and well maintained.



## APPENDIX A

- 1 - Parent/Guardian Cover Letter**
- 2 - Medical Clearance Letter**
- 3 – Medical Assessment Letter**



# St. James–Assiniboia School Division

*Great Schools for Growing and Learning*

**B. J. Lough**  
Chief Superintendent

**M. J. Friesen**  
Secretary-Treasurer / Chief Financial Officer

Dear Parent/Guardian:

The enclosed package provides information on the St James Assiniboia School Division concussion protocol. As an essential step of the protocol, a medical professional must complete the attached letters for your child to return to school activities and sports. As these letters are provided from the *Canadian Guideline on Concussion in Sport Pre-Season Concussion Education Sheet*, they refer to the student as “athlete”, although the injury may have occurred during a school activity other than sports.

The letters are to be completed by the appropriate medical professional and returned to the school before your child can return to any school or sports activities.

Thank you.



### Medical Clearance Letter

Date: \_\_\_\_\_ Athlete's Name: \_\_\_\_\_

To whom it may concern,

Athletes who are diagnosed with a concussion should be managed according to the *Canadian Guideline on Concussion in Sport* including the *Return---to---School* and *Return---to---Sport Strategies* (see page 2 of this letter). Accordingly, the above athlete has been medically cleared to participate in the following activities as tolerated effective the date stated above (please check all that apply):

- Symptom-limiting activity (cognitive and physical activities that don't provoke symptoms)**
- Light aerobic activity (Walking or stationary cycling at slow to medium pace. No resistance training)**
- Sport-specific exercise (Running or skating drills. No head impact activities)**
- Non-contact practice (Harder training drills, e.g. passing drills. May start progressive resistance training. Including gym class activities without a risk of contact, e.g. tennis, running, swimming)**
- Full-contact practice (Including gym class activities with risk of contact and head impact, e.g. soccer, dodgeball, basketball)**
- Full game play**

**What if symptoms recur?** Any athlete who has been cleared for physical activities, gym class or non-contact practice, and who has a recurrence of symptoms, should immediately remove himself or herself from the activity and inform the teacher or coach. If the symptoms subside, the athlete may continue to participate in these activities as tolerated.

Athletes who have been cleared for full contact practice or game play must be able to participate in full-time school (or normal cognitive activity) as well as high intensity resistance and endurance exercise (including non-contact practice) without symptom recurrence. Any athlete who has been cleared for full-contact practice or full game play and has a recurrence of symptoms, should immediately remove himself or herself from play, inform their teacher or coach, and undergo medical assessment by a medical doctor or nurse practitioner before returning to full---contact practice or games.

Any athlete who returns to practices or games and sustains a new suspected concussion should be managed according to the *Canadian Guideline on Concussion in Sport*.

Other comments:

---

---

Thank-you very much in advance for your understanding.

Yours Sincerely,

Signature/print \_\_\_\_\_ M.D. / N.P.  
(circle appropriate designation)\*

*\*In rural or northern regions, the Medical Clearance Letter may be completed by a nurse with pre-arranged access to a medical doctor or nurse practitioner. Forms completed by other licensed healthcare professionals should not otherwise be accepted.*

**We recommend that this document be provided to the athlete without charge.**

## Return-to-School Strategy<sup>1</sup>

The following is an outline of the *Return-to-School Strategy* that should be used to help student-athletes, parents, and teachers to partner in allowing the athlete to make a gradual return to school activities.

Depending on the severity and type of the symptoms present, student athletes will progress through the following stages at different rates. If the student-athlete experiences new symptoms or worsening symptoms at any stage, they should go back to the previous stage.

Stag	Aim	Activity	Goal of each step
1	Daily activities at home that do not give the student-athlete symptoms	Typical activities during the day as long as they do not increase symptoms (i.e. reading, texting, screen time). Start at 5-15 minutes at a time and gradually build up.	Gradual return to typical activities.
2	School activities	Homework, reading or other cognitive activities outside of the classroom.	Increase tolerance to cognitive work.
3	Return to school part-time	Gradual introduction of schoolwork. May need to start with a partial school day or with increased breaks during the day.	Increase academic activities.
4	Return to school full-time	Gradually progress.	Return to full academic activities and catch up on missed school work.

## Sport-Specific Return-to-Sport Strategy<sup>1</sup>

The following is an outline of the *Return-to-Sport Strategy* that should be used to help athletes, coaches, trainers, and medical professionals to partner in allowing the athlete to make a gradual return to sport activities. Activities should be tailored to create a sport-specific strategy that helps the athlete return to their respective sport.

An initial period of 24-48 hours of rest is recommended before starting their *Sport-Specific Return-to-Sport Strategy*. If the athlete experiences new symptoms or worsening symptoms at any stage, they should go back to the previous stage. It is important that youth and adult student-athletes return to full-time school activities before progressing to stage 5 and 6 of the *Sport-Specific Return-to-Sport Strategy*. It is also important that all athletes provide their coach with a *Medical Clearance Letter* prior to returning to full contact sport activities.

Stag	Aim	Activity	Goal of each step
1	Symptom limiting activity	Daily activities that do not provoke symptoms.	Gradual re-introduction of work/school activities.
2	Light aerobic activity	Walking or stationary cycling at slow to medium pace. No resistance training.	Increase heart rate.
3	Sport-specific exercise	Running or skating drills. No head impact activities.	Add movement.
4	Non-contact training drills	Harder training drills, e.g. passing drills. May start progressive	Exercise, coordination and increased thinking.
5	Full contact	Following medical clearance and complete return to school.	Restore confidence and assess functional skills by coaching
6	Return to sport	Normal game play.	

<sup>1</sup>Source: McCrory et al. (2017). Consensus statement on concussion in sport – the 5<sup>th</sup> international conference on concussion in sport held in Berlin, October 2016. *British Journal of Sports Medicine*, 51(11), 838–847. <http://dx.doi.org/10.1136/bjsports-2017->



**St. James-Assiniboia School Division**  
*Great Schools for Growing and Learning*

**Medical Assessment Letter**

Date: \_\_\_\_\_ Athlete's Name: \_\_\_\_\_

To whom it may concern,

Athletes who sustain a suspected concussion should be managed according to the *Canadian Guideline on Concussion in Sport*. Accordingly, I have personally completed a Medical Assessment on this patient.

**Results of Medical Assessment**

- This patient has not been diagnosed with a concussion and can resume full participation in school, work, and sport activities without restriction.
- This patient has not been diagnosed with a concussion but the assessment led to the following diagnosis and recommendations:

\_\_\_\_\_  
\_\_\_\_\_

- This patient has been diagnosed with a concussion.

The goal of concussion management is to allow complete recovery of the patient's concussion by promoting a safe and gradual return to school and sport activities. The patient has been instructed to avoid all recreational and organized sports or activities that could potentially place them at risk of another concussion or head injury. Starting on \_\_\_\_\_(date), I would ask that the patient be allowed to participate in school and low-risk physical activities as tolerated and only at a level that does not bring on or worsen their concussion symptoms. The above patient should not return to any full contact practices or games until the coach has been provided with a *Medical Clearance Letter* provided by a medical doctor or nurse practitioner in accordance with the *Canadian Guideline on Concussion in Sport*.

Other comments:

\_\_\_\_\_  
\_\_\_\_\_

Thank-you very much in advance for your understanding.

Yours Sincerely,

Signature/print \_\_\_\_\_ M.D. / N.P.  
(circle appropriate designation)\*

*\*In rural or northern regions, the Medical Assessment Letter may be completed by a nurse with pre-arranged access to a medical doctor or nurse practitioner. Forms completed by other licensed healthcare professionals should not otherwise be accepted.*

**We recommend that this document be provided to the athlete without charge.**

## Return-to-School Strategy<sup>1</sup>

The following is an outline of the *Return-to-School Strategy* that should be used to help student-athletes, parents, and teachers to partner in allowing the athlete to make a gradual return to school activities.

Depending on the severity and type of the symptoms present, student-athletes will progress through the following stages at different rates. If the student-athlete experiences new symptoms or worsening symptoms at any stage, they should go back to the previous stage.

Stag	Aim	Activity	Goal of each step
1	Daily activities at home that do not give the student-athlete symptoms	Typical activities during the day as long as they do not increase symptoms (i.e. reading, texting, screen time). Start at 5-15 minutes at a time and gradually build up.	Gradual return to typical activities.
2	School activities	Homework, reading or other cognitive activities outside of the classroom.	Increase tolerance to cognitive work.
3	Return to school part-time	Gradual introduction of schoolwork. May need to start with a partial school day or with increased breaks during the day.	Increase academic activities.
4	Return to school full-time	Gradually progress.	Return to full academic activities and catch up on missed school work.

## Sport-Specific Return-to-Sport Strategy<sup>1</sup>

The following is an outline of the *Return-to-Sport Strategy* that should be used to help athletes, coaches, trainers, and medical professionals to partner in allowing the athlete to make a gradual return to sport activities. Activities should be tailored to create a sport-specific strategy that helps the athlete return to their respective sport.

An initial period of 24-48 hours of rest is recommended before starting their *Sport-Specific Return-to-Sport Strategy*. If the athlete experiences new symptoms or worsening symptoms at any stage, they should go back to the previous stage. It is important that youth and adult student-athletes return to full-time school activities before progressing to stage 5 and 6 of the *Sport-Specific Return-to-Sport Strategy*. It is also important that all athletes provide their coach with a *Medical Clearance Letter* prior to returning to full contact sport activities.

Stag	Aim	Activity	Goal of each step
1	Symptom-limiting	Daily activities that do not provoke symptoms.	Gradual re-introduction of work/school activities.
2	Light aerobic activity	Walking or stationary cycling at slow to medium pace. No resistance	Increase heart rate.
3	Sport-specific exercise	Running or skating drills. No head impact activities.	Add movement.
4	Non-contact training drills	Harder training drills, e.g. passing drills. May start progressive	Exercise, coordination and increased thinking.
5	Full contact practice	Following medical clearance and complete return to school.	Restore confidence and assess functional skills by coaching
6	Return to sport	Normal game play.	

<sup>1</sup>Source: McCrory et al. (2017). Consensus statement on concussion in sport – the 5<sup>th</sup> international conference on concussion in sport held in Berlin, October 2016. *British Journal of Sports Medicine*, 51(11), 838-847. <http://dx.doi.org/10.1136/bjsports-2017->

APPENDIX B

**1 - Pre-Season Education Sheet – Parachute**

## Pre-Season Concussion Education Sheet

### WHAT IS A CONCUSSION?

A concussion is a brain injury that can't be seen on x-rays, CT or MRI scans. It affects the way an athlete thinks and can cause a variety of symptoms.

### WHAT CAUSES A CONCUSSION?

Any blow to the head, face or neck, or somewhere else on the body that causes a sudden jarring of the head may cause a concussion. Examples include getting body-checked in hockey or hitting one's head on the floor in gym class.

### WHEN SHOULD I SUSPECT A CONCUSSION?

A concussion should be suspected in any athlete who sustains a significant impact to the head, face, neck, or body and reports ANY symptoms or demonstrates ANY visual signs of a concussion. A concussion should also be suspected if an athlete reports ANY concussion symptoms to one of their peers, parents, teachers, or coaches or if anyone witnesses an athlete exhibiting ANY of the visual signs of concussion. Some athletes will develop symptoms immediately while others will develop delayed symptoms (beginning 24-48 hours after the injury).

### WHAT ARE THE SYMPTOMS OF A CONCUSSION?

A person does not need to be knocked out (lose consciousness) to have had a concussion. Common symptoms include:

- ▶ Headaches or head pressure
- ▶ Dizziness
- ▶ Nausea and vomiting
- ▶ Blurred or fuzzy vision
- ▶ Sensitivity to light or sound
- ▶ Balance problems
- ▶ Feeling tired or having no energy
- ▶ Not thinking clearly
- ▶ Feeling slowed down
- ▶ Easily upset or angered
- ▶ Sadness
- ▶ Nervousness or anxiety
- ▶ Feeling more emotional
- ▶ Sleeping more or sleeping less
- ▶ Having a hard time falling asleep
- ▶ Difficulty working on a computer
- ▶ Difficulty reading
- ▶ Difficulty learning new information

### WHAT ARE THE VISUAL SIGNS OF A CONCUSSION?

Visual signs of a concussion may include:

- ▶ Lying motionless on the playing surface
- ▶ Slow to get up after a direct or indirect hit to the head
- ▶ Disorientation or confusion or inability to respond appropriately to questions
- ▶ Blank or vacant stare
- ▶ Balance, gait difficulties, motor incoordination, stumbling, slow labored movements
- ▶ Facial injury after head trauma
- ▶ Clutching head

### WHAT SHOULD I DO IF I SUSPECT A CONCUSSION?

If any athlete is suspected of sustaining a concussion during sports they should be immediately removed from play. Any athlete who is suspected of having sustained a concussion during sports must not be allowed to return to the same game or practice.

**It is important that ALL athletes with a suspected concussion undergo medical assessment by a medical doctor or nurse practitioner, as soon as possible. It is also important that ALL athletes with a suspected concussion receive written medical clearance from a medical doctor or nurse practitioner before returning to sport activities.**



## WHEN CAN THE ATHLETE RETURN TO SCHOOL AND SPORTS?

It is important that all athletes diagnosed with a concussion follow a step-wise return to school and sports-related activities that includes the following Return-to-School and Return-to-Sport Strategies. It is important that youth and adult student-athletes return to full-time school activities before progressing to stage 5 and 6 of the Return-to-Sport Strategy.

### Return-to-School Strategy<sup>1</sup>

Stage	Aim	Activity	Goal of each step
1	Daily activities at home that do not give the student-athlete symptoms	Typical activities during the day as long as they do not increase symptoms (i.e. reading, texting, screen time). Start at 5-15 minutes at a time and gradually build up.	Gradual return to typical activities.
2	School activities	Homework, reading or other cognitive activities outside of the classroom.	Increase tolerance to cognitive work.
3	Return to school part-time	Gradual introduction of schoolwork. May need to start with a partial school day or with increased breaks during the day.	Increase academic activities.
4	Return to school full-time	Gradually progress.	Return to full academic activities and catch up on missed school work.

### Sport-Specific Return-to-Sport Strategy<sup>1</sup>

Stage	Aim	Activity	Goal of each step
1	Symptom-limiting activity	Daily activities that do not provoke symptoms.	Gradual re-introduction of work/school activities.
2	Light aerobic activity	Walking or stationary cycling at slow to medium pace. No resistance training.	Increase heart rate.
3	Sport-specific exercise	Running or skating drills. No head impact activities.	Add movement.
4	Non-contact training drills	Harder training drills, e.g. passing drills. May start progressive resistance training.	Exercise, coordination and increased thinking.
5	Full contact practice	Following medical clearance and complete return to school.	Restore confidence and assess functional skills by coaching staff.
6	Return to sport	Normal game play.	

## HOW LONG WILL IT TAKE FOR THE ATHLETE TO RECOVER?

Most athletes who sustain a concussion will make a complete recovery within 1-2 weeks while most youth athletes will recover within 1-4 weeks. Approximately 15-30% of patients will experience persistent symptoms (>2 weeks for adults; >4 weeks for youth) that may require additional medical assessment and management.

<sup>1</sup>Source: McCrory et al. (2017). Consensus statement on concussion in sport – the 5<sup>th</sup> international conference on concussion in sport held in Berlin, October 2016. *British Journal of Sports Medicine*, 51(11), 838-847. <http://dx.doi.org/10.1136/bjsports-2017->

**HOW CAN I HELP PREVENT CONCUSSIONS AND THEIR CONSEQUENCES?**

Concussion prevention, recognition and management require athletes to follow the rules and regulations of their sport, respect their opponents, avoid head contact, and report suspected concussions.

**TO LEARN MORE ABOUT CONCUSSIONS PLEASE VISIT:**

Parachute Canada: [www.parachutecanada.org/concussion](http://www.parachutecanada.org/concussion)

**SIGNATURES (OPTIONAL):** The following signatures certify that the athlete and his/her parent or legal guardian have reviewed the above information related to concussion.

\_\_\_\_\_  
Printed name of athlete

\_\_\_\_\_  
Signature of athlete

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of parent

\_\_\_\_\_  
Signature of parent

\_\_\_\_\_  
Date

## APPENDIX C

- 1 – Concussion Guide for Teachers**
- 2 – Concussion Guide for Coaches**
- 3 – Concussion Guide for Athletes**



## What is a concussion?

A concussion is a brain injury that cannot be seen on routine X-rays, CT scans, or MRIs. It affects the way a student may think and remember things, and can cause a variety of symptoms.

## What are the signs and symptoms of a concussion?

**A student does not need to be knocked out (lose consciousness) to have had a concussion.** The student might experience one or more of the following:

Thinking Problems	Student's Complaints	Other Problems
<ul style="list-style-type: none"> <li>• Does not know time, date, place, details about a recent activity</li> <li>• General confusion</li> <li>• Cannot remember things that happened before and after the injury</li> <li>• Knocked out</li> </ul>	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Dizziness</li> <li>• Feels dazed</li> <li>• Feels “dinged” or stunned; “having my bell rung”</li> <li>• Sees stars, flashing lights</li> <li>• Ringing in the ears</li> <li>• Sleepiness</li> <li>• Loss of vision</li> <li>• Sees double or blurry</li> <li>• Stomachache, stomach pain, nausea</li> </ul>	<ul style="list-style-type: none"> <li>• Poor co-ordination or balance</li> <li>• Blank stare/glassy-eyed</li> <li>• Vomiting</li> <li>• Slurred speech</li> <li>• Slow to answer questions or follow directions</li> <li>• Easily distracted</li> <li>• Poor concentration</li> <li>• Strange or inappropriate emotions (i.e., laughing, crying, getting mad easily)</li> <li>• Not participating well</li> </ul>

**Get medical help immediately if a student has any “red flag” symptoms** such as neck pain, repeated vomiting, growing confusion, seizures, and weakness or tingling in their arms or legs. These may be signs of a more serious injury.



## What causes a concussion?

Any blow to the head, face or neck, or a blow to the body which causes a sudden jarring of the head may cause a concussion (e.g., a ball to the head, colliding with another person).

## What should I do if I suspect a student has a concussion?

**In all suspected cases of concussion, the student should stop the activity right away.**

Continuing increases their risk of more severe, longer-lasting concussion symptoms, as well as increases their risk of other injury.

The [Concussion Recognition Tool 5](#) (CRT5) can be used by anyone to help recognize the signs and symptoms of a possible concussion.

The student should not be left alone and should be seen by a doctor as soon as possible that day. They should not drive.

If the student loses consciousness, call an ambulance to take them to the hospital right away. Do not move them or remove any equipment such as a helmet.

The student should not return to play the same day.

## How long will it take for the student to get better?

The signs and symptoms of a concussion often last for one to four weeks but may last longer. In some cases, students may take many weeks or months to heal. If the student has had a concussion before, they may take longer to heal.

If the student's symptoms are persistent (i.e., last longer than four weeks in youth under 18 years old or last longer than two weeks in students aged 18

or older), they should be referred to a healthcare professional who is an expert in the management of concussion.

## How is concussion treated?

After an initial short period of rest (24 to 48 hours), light cognitive and physical activity can begin, as long as these don't worsen symptoms.

As the student is recovering from concussion, they should not do any activities that may make their symptoms worse. This might mean limiting activities such as exercising, driving, and screen time on their phone or other devices. If mental activities (e.g., reading, using the computer) worsen the student's symptoms, they might have to stay home from school.

Recovering from concussion is a process that takes patience. If the student goes back to activities before they are ready, it is likely to make their symptoms worse, and their recovery might take longer.

## When should the student go to the doctor?

Anyone with a possible head injury should be seen by a doctor as soon as possible.

The student should go back to the doctor immediately if, after being told they have a concussion, they have worsening symptoms, such as:

- being more confused
- headache that is getting worse
- vomiting more than twice
- not waking up
- having any trouble walking
- having a seizure
- strange behaviour

## When can the student return to school?

The student may find it hard to concentrate in class, may get a worse headache, or feel sick to their stomach. They should stay home from school if being in class makes their symptoms worse. Once they feel better, they can try going back to school part time to start (i.e., for half days) and if they are OK with that, then they can go back full time.

On average, students with concussion miss one to four days of school. Each concussion is unique, so the student may progress at a different rate than others.

The [Return-to-School Strategy](#) provides information on the stages of returning to the classroom. Return to school must come before full return to sport.

## When can the student return to sport and physical activity?

It is very important that the student does not go back to full participation in sport if they have any concussion signs or symptoms. Return to sport and physical activity must follow a step-wise approach.

In this approach:

- Each stage is at least 24 hours.
- The student moves on to the next stage when they can tolerate activities without new or worsening symptoms.
- If any of the student's symptoms worsen, they should stop and go back to the previous stage for at least 24 hours.

**Stage 1: After an initial 24 to 48 hours of rest, light cognitive and physical activity** can begin, as long as these don't worsen symptoms. The student can start with daily activities like moving around the home and simple chores, such as making their bed.

**Stage 2: Light aerobic activity** such as walking or stationary cycling, for 10 to 15 minutes. The student

shouldn't do any heavy lifting or resistance training (e.g., bodyweight exercises, weight training).

**Stage 3: Individual physical activity with no risk of contact** for 20 to 30 minutes. The student can participate in simple, individual activities, such as going for a walk at recess or shooting a basketball. The student shouldn't do any resistance training.

**Stage 4: Begin practising with no contact** (no checking, no heading the ball, etc.). Add in longer and more challenging physical activity. Start to add in resistance training (if appropriate for the student).

**Get clearance from a doctor before moving on to Stages 5 and 6.**

**Stage 5: Participate in practice with contact**, if the student plays a contact sport.

**Stage 6: Full game play or competition.**

The [Return-to-Sport Strategy](#) provides more information on the stages of returning to sport.

## The student should never return to sport until cleared by a doctor!

Returning before full recovery from concussion puts the student at higher risk of sustaining another concussion, with symptoms that may be more severe and last longer.

### Additional Resources

#### Return-to-School Strategy

<http://horizon.parachutecanada.org/en/article/parachutes-return-to-learn-protocol>

#### Return-to-Sport Strategy

<http://horizon.parachutecanada.org/wp-content/uploads/2017/06/Concussion-ReturnToSport.pdf>

#### Canadian Guideline on Concussion in Sport

<http://www.parachutecanada.org/guideline>



## What is a concussion?

A concussion is a brain injury that cannot be seen on routine X-rays, CT scans, or MRIs. It affects the way an athlete may think and remember things, and can cause a variety of symptoms.

## What are the signs and symptoms of a concussion?

**An athlete does not need to be knocked out (lose consciousness) to have had a concussion.** The athlete might experience one or more of the following:

Thinking Problems	Athlete's Complaints	Other Problems
<ul style="list-style-type: none"><li>• Does not know time, date, place, period of game, opposing team, score of game</li><li>• General confusion</li><li>• Cannot remember things that happened before and after the injury</li><li>• Knocked out</li></ul>	<ul style="list-style-type: none"><li>• Headache</li><li>• Dizziness</li><li>• Feeling dazed</li><li>• Feeling “dinged” or stunned; “having my bell rung”</li><li>• Seeing stars, flashing lights</li><li>• Ringing in the ears</li><li>• Sleepiness</li><li>• Loss of vision</li><li>• Seeing double or blurry vision</li><li>• Stomachache, stomach pain, nausea</li></ul>	<ul style="list-style-type: none"><li>• Poor co-ordination or balance</li><li>• Blank stare/glassy-eyed</li><li>• Vomiting</li><li>• Slurred speech</li><li>• Slow to answer questions or follow directions</li><li>• Easily distracted</li><li>• Poor concentration</li><li>• Strange or inappropriate emotions (i.e., laughing, crying, getting mad easily)</li><li>• Not playing as well</li></ul>

**Get medical help immediately if an athlete has any “red flag” symptoms** such as neck pain, repeated vomiting, growing confusion, seizures, and weakness or tingling in their arms or legs. These may be signs of a more serious injury.



## What causes a concussion?

Any blow to the head, face or neck, or a blow to the body which causes a sudden jarring of the head may cause a concussion (e.g., a ball to the head, being checked into the boards).

## What should I do if I think an athlete might have a concussion?

**In all suspected cases of concussion, the athlete should stop playing right away.** Continuing to play increases their risk of more severe, longer-lasting concussion symptoms, as well as increases their risk of other injury.

The [Concussion Recognition Tool 5](#) (CRT5) can be used by anyone to help recognize the signs and symptoms of a possible concussion.

The athlete should not be left alone and should be seen by a doctor as soon as possible that day. They should not drive.

If the athlete loses consciousness, call an ambulance to take them to the hospital right away. Do not move them or remove any equipment such as a helmet.

The athlete should not return to play the same day.

## How long will it take for the athlete to get better?

The signs and symptoms of a concussion usually last for one to four weeks, but may last longer. In some cases, it may take many weeks or months to heal. If the athlete has had a previous concussion, they may take longer to heal.

If the athlete's symptoms are persistent (i.e., last longer than two weeks in adults or longer than four

weeks in youth under 18 years old) they should be referred to a healthcare professional who is an expert in the management of concussion.

## How is concussion treated?

After an initial short period of rest (24 to 48 hours), light cognitive and physical activity can begin, as long as these don't worsen symptoms.

As the athlete is recovering from concussion, they should not do any activities that may make their symptoms worse. This might mean limiting activities such as exercising, driving, and screen time on their phone or other devices.

Recovering from concussion is a process that takes patience. Going back to activities before the athlete is ready is likely to make their symptoms worse, and their recovery may take longer.

## When should the athlete go to the doctor?

Anyone with a possible head injury should be seen by a doctor as soon as possible.

The athlete should go back to the doctor immediately if, after being told they have a concussion, they have worsening symptoms, such as:

- being more confused
- headache that is getting worse
- vomiting more than twice
- not waking up
- having any trouble walking
- having a seizure
- strange behaviour



## When can the athlete return to school?

On average, students with concussion miss one to four days of school. Each concussion is unique, so the athlete may progress at a different rate than others.

The [Return-to-School Strategy](#) provides information on the stages of returning to the classroom. **Return to school must come before full return to sport.**

## When can the athlete return to sport?

It is very important that an athlete not go back to full participation in sport if they have any concussion signs or symptoms. Return to sport and physical activity must follow a step-wise approach.

In this approach:

- Each stage is at least 24 hours.
- The athlete moves on to the next stage when they can tolerate activities without new or worsening symptoms.
- If any symptoms worsen, the athlete should stop and go back to the previous stage for at least 24 hours.

**Stage 1: After an initial 24 to 48 hours of rest, light cognitive and physical activity** can begin, as long as these don't worsen symptoms. The athlete can start with daily activities such as moving around the home and simple chores, such as making their bed.

**Stage 2: Light aerobic activity** such as walking or stationary cycling, for 10 to 15 minutes. The athlete shouldn't do any resistance training or other heavy lifting.

**Stage 3: Individual sport-specific exercise** with no contact for 20 to 30 minutes (e.g., running, throwing). The athlete shouldn't do any resistance training.

**Stage 4: Begin practising with no contact** (no checking, no heading the ball, etc.). Add in more challenging drills. Start to add in resistance training.

**Stage 5: Participate in practice with contact**, once cleared by a doctor.

**Stage 6: Full game play or competition.**

The [Return-to-Sport Strategy](#) provides more information on the stages of returning to sport.

## An athlete should never return to sport until cleared by a doctor!

Returning before full recovery from concussion puts athletes at higher risk of sustaining another concussion, with symptoms that may be more severe and last longer.

### Additional Resources

#### Return-to-School Strategy

<http://horizon.parachutecanada.org/en/article/parachutes-return-to-learn-protocol>

#### Return-to-Sport Strategy

<http://horizon.parachutecanada.org/wp-content/uploads/2017/06/Concussion-ReturnToSport.pdf>

#### Canadian Guideline on Concussion in Sport

<http://www.parachutecanada.org/guideline>

#### Concussion: Baseline Testing

<http://www.parachutecanada.org/downloads/injurytopics/BaselineTesting-FactSheet-Parachute.pdf>

#### Making Headway eLearning (Coaching Association of Canada)

<https://coach.ca/making-head-way-concussion-elearning-series-p153487&language=en>



## What is a concussion?

A concussion is a brain injury that cannot be seen on routine X-rays, CT scans, or MRIs. It affects the way you may think and remember things, and can cause a variety of symptoms.

## What are the signs and symptoms of a concussion?

**You do not need to be knocked out (lose consciousness) to have had a concussion.** You might experience one or more of the following:

Thinking Problems	How You Might Feel	Other Problems
<ul style="list-style-type: none"> <li>• Do not know time, date, place, period of game, opposing team, score of game</li> <li>• General confusion</li> <li>• Cannot remember things that happened before and after the injury</li> <li>• Knocked out</li> </ul>	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Dizziness</li> <li>• Feeling dazed</li> <li>• Feeling “dinged” or stunned; “having my bell rung”</li> <li>• Seeing stars, flashing lights</li> <li>• Ringing in the ears</li> <li>• Sleepiness</li> <li>• Loss of vision</li> <li>• Seeing double or blurry vision</li> <li>• Stomachache, stomach pain, nausea</li> </ul>	<ul style="list-style-type: none"> <li>• Poor co-ordination or balance</li> <li>• Blank stare/glassy-eyed</li> <li>• Vomiting</li> <li>• Slurred speech</li> <li>• Slow to answer questions or follow directions</li> <li>• Easily distracted</li> <li>• Poor concentration</li> <li>• Strange or inappropriate emotions (i.e., laughing, crying, getting mad easily)</li> <li>• Not playing as well</li> </ul>

**Get medical help immediately if you have any “red flag” symptoms** such as neck pain, repeated vomiting, growing confusion, seizures, and weakness or tingling in your arms or legs. These may be signs of a more serious injury.



## What causes a concussion?

Any blow to your head, face or neck, or a blow to your body which causes a sudden jarring of your head may cause a concussion (e.g., a ball to the head, being checked into the boards).

## What should I do if I think I might have a concussion?

**You should stop playing right away.** Continuing to play increases your risk of more severe, longer-lasting concussion symptoms, as well as increases your risk of other injury.

Tell a coach, parent, official, or other responsible person that you are concerned you might have a concussion. You should not be left alone and should be seen by a doctor as soon as possible that day. You should not drive.

If you lose consciousness, an ambulance should be called to take you to a hospital immediately.

Do not return to play the same day.

## What should I do if I think my teammate might have a concussion?

If another athlete tells you about symptoms or if you notice signs they might have a concussion, tell a coach, parent, official or other responsible person. They should not be left alone and should be seen by a doctor as soon as possible that day.

If another athlete is knocked out, an ambulance should be called to take them to a hospital immediately.

## How long will it take to get better?

The signs and symptoms of a concussion usually last for one to four weeks, but may last longer. In some cases, it may take many weeks or months to heal. If you have had a previous concussion, you may take longer to heal.

If your symptoms are persistent (i.e., last longer than four weeks if you're under 18 or last longer than two weeks if you're 18 or older) you should be referred to a healthcare professional who is an expert in the management of concussion.

## How is concussion treated?

After an initial short period of rest (24 to 48 hours), light cognitive and physical activity can begin, as long as these don't worsen your symptoms.

As you're recovering from concussion, you should not do any activities that may make your symptoms worse. This might mean limiting activities such as exercising, driving, and screen time on your phone or other devices. If mental activities (e.g., reading, using the computer) worsen your symptoms, you might have to stay home from school or work.

Recovering from concussion is a process that takes patience. Going back to activities before you are ready is likely to make your symptoms worse, and your recovery may take longer.

## When should I go to the doctor?

Anyone with a possible head injury should be seen by a doctor as soon as possible. If you are diagnosed with a concussion, your doctor should schedule a follow-up visit with you within the next one to two weeks.

You should go back to the doctor immediately if, after being told you have a concussion, you have worsening symptoms, such as:

- being more confused
- headache that is getting worse
- vomiting more than twice
- not waking up
- having any trouble walking
- having a seizure
- strange behaviour

## When can I return to school?

You may find it hard to concentrate in class, may get a worse headache, or feel sick to your stomach. You should stay home from school if being in class makes your symptoms worse. Once you feel better, you can try going back to school part-time to start (i.e., for half days) and if you are OK with that, then you can go back full time.

On average, students with concussion miss one to four days of school. Each concussion is unique, so you may progress at a different rate than other people you know.

The [Return-to-School Strategy](#) provides information on the stages of returning to the classroom. Remember, return to school must come before full return to sport.

## When can I return to sport?

It is very important that you do not go back to full participation in sport if you have any concussion signs or symptoms. Return to sport and physical activity must follow a step-wise approach.

In this approach:

- Each stage is at least 24 hours.
- Move on to the next stage when you can tolerate activities without new or worsening symptoms.
- If any symptoms worsen, stop and go back to the previous stage for at least 24 hours.

**Stage 1: After an initial 24 to 48 hours of rest, light cognitive and physical activity** can begin, as long as these don't worsen your symptoms. Start with daily activities like moving around your home and simple chores, such as making your bed.

**Stage 2: Light aerobic activity** such as walking or stationary cycling, for 10 to 15 minutes. Don't do any resistance training or other heavy lifting.

**Stage 3: Individual sport-specific exercise** with no contact for 20 to 30 minutes (e.g., running, throwing). Don't do any resistance training.

**Stage 4: Begin practising with no contact** (no checking, no heading the ball, etc.). Add in more challenging drills. Start to add in resistance training.

**Stage 5: Participate in practice with contact**, once cleared by a doctor.

**Stage 6: Full game play or competition.**

The [Return-to-Sport Strategy](#) provides more information on the stages of returning to sport.

## Never return to sport until cleared by a doctor!

Returning to active play before full recovery from concussion puts you at higher risk of sustaining another concussion, with symptoms that may be more severe and last longer.

## Additional Resources

### Return-to-School Strategy

<http://horizon.parachutecanada.org/en/article/parachutes-return-to-learn-protocol>

### Return-to-Sport Strategy

<http://horizon.parachutecanada.org/wp-content/uploads/2017/06/Concussion-ReturnToSport.pdf>

### Canadian Guideline on Concussion in Sport

<http://www.parachutecanada.org/guideline>