



WINNIPEG SCHOOL DIVISION

Concussion Protocol

SUMMARY

The following is a summary of the WINNIPEG SCHOOL DIVISION CONCUSSION PROTOCOL.

- 1) All students attending a WINNIPEG SCHOOL DIVISION school and their parents are encouraged to review the Canadian Guideline on Concussion in Sport Pre-season Concussion Education Sheet prior to the first practice of the season. In addition to reviewing information on concussion, it is also important that all school and sport stakeholders have a clear understanding of the WINNIPEG SCHOOL DIVISION CONCUSSION PROTOCOL.
- 2) In the event that a Winnipeg School Division student is suspected to have sustained a head injury or concussion the following procedures must be followed:
 - a) If any student is suspected of sustaining a severe head or spine injury during a Winnipeg School Division activity, the attending teacher/coach/volunteer must immediately contact the student's parent/guardian and an ambulance should be called immediately to transfer the student to Children's Hospital Emergency Department or nearest hospital for Medical Assessment. If follow-up care is needed, the treating medical doctor, physician assistant or nurse practitioner may refer the patient to their primary care provider or the Pan Am Concussion Program.
 - b) If the student develops symptoms of a concussion during a Winnipeg School Division activity, the attending teacher/coach/volunteer must immediately contact the student's parent/guardian and advise them that the student must be evaluated immediately at the Children's Hospital Emergency Department or the nearest emergency room. If followup care is needed, the treating medical doctor, physician assistant or nurse practitioner may refer the patient to their primary care provider or the Pan Am Concussion Program.
 - c) If the student develops delayed concussion symptoms several hours later, the student should be evaluated by a family medicine physician, nurse practitioner, physician assistant, pediatrician, or sports medicine physician. If follow-up care is needed, the treating medical doctor, physician assistant or nurse practitioner may refer the patient to the Pan Am Concussion Program.

All Winnipeg School Division students with a suspected concussion must provide their coach/teacher/school with a Canadian Guideline on Concussion in Sport Medical Assessment or Medical Clearance Letter before returning to any school and sports activities.

For more information on the WINNIPEG SCHOOL DIVISION CONCUSSION PROTOCOL please see below for outline of the complete protocol.

For more information on concussion please visit:

<http://www.parachutecanada.org/injurytopics/item/canadian-guideline-on-concussion-in-sport>

WINNIPEG SCHOOL DIVISION CONCUSSION PROTOCOL

WINNIPEG SCHOOL DIVISION has developed the WINNIPEG SCHOOL DIVISION CONCUSSION PROTOCOL to help guide the management of students who sustain a suspected concussion as a result of participation in WINNIPEG 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 back to their school activities and sports safely. This protocol may not address every possible clinical scenario that can occur during Winnipeg 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. However, 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
- 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 Winnipeg 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 WINNIPEG SCHOOL DIVISION CONCUSSION PROTOCOL.

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.

3a. Emergency Medical Assessment

If a Winnipeg 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

3b. Sideline Medical Assessment

If a Winnipeg 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 the Sport Concussion Assessment Tool-5 (SCAT5) or the 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 Winnipeg School Division student-athletes.

Any student who is suspected of having sustained a concussion must not return to the game, practice, or gym 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 doctors¹ 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. Winnipeg 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*

¹ 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 Winnipeg School Division student has been diagnosed with a concussion, it is important that the student's parent/legal guardian is informed. All Winnipeg School Division 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.

Winnipeg 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 Winnipeg 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 academic activities
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, approximately 15 to 30% of individuals will experience symptoms that persist beyond this time frame.

Winnipeg 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 to have not 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.

Winnipeg 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 WINNIPEG 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 how to download the Concussion Recognition Tool 5, SCAT5 & Child SCAT5 please visit:

<http://www.parachutecanada.org/injury-topics/item/canadian-guideline-on-concussionin-sport>