



CONCUSSION POLICY

UPDATED: October 21, 2020

The British Columbia Freestyle Ski Association, hereafter referred to as Freestyle BC (FBC), recognizes that participation in freestyle skiing has an inherent amount of risk that may lead to head injuries and concussions. The purpose of this policy statement is to outline in broad terms the objectives to be achieved by the policy.

The policy applies to all members of the Freestyle BC, including all members and clubs, and is consistent with Freestyle Canada's Concussion Policy and the Canadian Guidelines on Concussion in Sport (2017).

This document is designed to provide guidance to Freestyle BC members responsible for operating, regulating, or planning Freestyle BC sanctioned activities with a risk of concussion to participants in the development, establishment and implementation of policies, procedures and programs for the prevention, treatment, and education of sport-related concussions and head injuries.

PURPOSE

1. The objective of this policy is to protect the short-term and long-term health and safety of Freestyle BC members who may have a suspected concussion or have received a concussion diagnosis.
2. This policy and related protocols cover the recognition, medical diagnosis, and management of Freestyle BC members who are athletes and who may sustain a suspected concussion during a sport activity. It aims to ensure that athletes with a suspected concussion receive timely and appropriate care and proper management to allow them to return back to their sport safely. This policy may not address every possible clinical scenario that can occur during sport-related activities but includes critical elements based on the latest evidence and current expert consensus.

DEFINITIONS

3. The following terms will have this meaning in this Policy:

- a. **“Freestyle BC Members”** – All categories of membership within FBC, as well as all individuals engaged in activities with FBC, including but not limited to, athletes, coaches, officials, judges, volunteers, directors, officers, administrators, spectators, team personnel, and parents of FBC members
- b. **“Concussion”** - means a form of traumatic brain injury induced by biomechanical forces that results in signs and symptoms that are typically resolved spontaneously within 1 to 4 weeks of injury. (1)

In plain language, a concussion:

- i. Is a brain injury that causes changes in how the brain functions, leading to symptoms that can be physical (e.g. headache, dizziness), cognitive (e.g., difficulty concentrating or remembering), emotional/behavioural (e.g., depression, irritability) and/or related to sleep (e.g., drowsiness, poor quality of sleep);
 - ii. May be caused either by a direct blow to the head, face or neck, or a blow to the body that transmits a force to the head that causes the brain to move rapidly within the skull;
 - iii. Can occur even if there has been no loss of consciousness (in fact most concussions occur without a loss of consciousness); and,
 - iv. Cannot normally be seen on x-rays, standard CT scans or MRIs.
- c. **“Suspected Concussion”** – means the recognition that an individual appears to have either experienced an injury or impact that may result in a concussion or is exhibiting unusual behaviour that may be the result of concussion.
 - d. **“Concussion Diagnosis”** – means a clinical diagnosis made by a medical doctor or nurse practitioner.
 - e. **“Youth or youth athlete”** – means an athlete who is less than 18 years of age.
 - f. **“Recognition”** – means the detection of an event (i.e. suspected concussion) occurring during sports or a sport activity.
 - g. **“Persistent Symptoms”** – means concussion symptoms that last longer than 2

¹ McCrory P, Meeuwisse W, Dvorak J, et al. “Consensus statement on concussion in sport – the 5th international conference on concussion in sport held in Berlin, October 2016,” in Br J Sports Medicine 51(11), 838-847.

weeks after the injury in adults and long than 4 weeks after injury in youth.

- h. **“Licensed healthcare professional”** – means a healthcare provider who is licensed by a national-professional regulatory body to provide concussion-related healthcare services that fall within their licensed scope of practice. Example include medical doctors, nurses, physiotherapists, athletic therapists, and chiropractors.

Among licensed healthcare professionals, only medical doctors and nurse practitioners are qualified to conduct a comprehensive medical assessment and provide a concussion diagnosis in Canada. The types of medical doctors qualified to do such an evaluation are pediatricians; family medicine, sport medicine, internal medicine, orthopedic surgeon, emergency department and rehabilitation (physiatrists) physicians; neurologists; and neurosurgeons.

- i. **“Medical Assessment”** – means the evaluation of an individual by a licensed healthcare professional to determine the presence or absence of a medical condition or disorder, such as a concussion.
- j. **“Treatment”** – means an intervention provided by a licensed healthcare professional to address a diagnosed medical condition/disorder or its associated symptoms, such as physical therapy.
- k. **“Multidisciplinary concussion clinic”** – means a facility or network of licensed healthcare professionals that provide assessment and treatment of concussion patients and are supervised by a physician with training and experience in concussion.
- l. **“Tool”** – means a standardized instrument or device that can be used to help recognize an event (i.e. a suspected concussion) or assess an individual with a suspected medical diagnosis (i.e. Sport Concussion Assessment Tool 5).
- m. **“Concussion Recognition Tool – 5th Edition (CRT5)”** – means a tool intended to be used for the identification of suspected concussion in children, youth, and adults. Published in 2017 by the Concussion in Sport Group, the CRT5 replaced the previous Pocket Concussion Recognition Tool from 2013.

SCOPE

- This Policy applies to all Freestyle BC Members as described in the Definitions. It is the responsibility of Athletes, Coaches, Officials, FBC Staff, Parents, and Volunteers to work together to recognize and prevent concussions during all FBC-related activities.

RECOGNIZE AND REMOVE

- Although the formal diagnosis of concussion should be made following a medical assessment, all sport stakeholders, including athletes, parents, coaches, officials, teachers, trainers, and licensed healthcare professionals are responsible for the recognition and reporting of athletes who demonstrate visual signs of a head injury or who report concussion symptoms. This is particularly important because many training and competition venues will not have access to on-site licensed healthcare professionals.
- Recognizing Symptoms: A person does not need to be knocked out (lose consciousness) to have had a concussion. Common symptoms include:

• Headaches or head pressure	• Easily upset or angered
• Repetition or confusion	• Feeling slowed down
• Dizziness	• Sadness
• Nausea and vomiting	• Nervousness or anxiety
• Blurred or fuzzy vision	• Feeling more emotional
• Sensitivity to light or sound	• Sleeping more or sleeping less
• Balance problems	• Having a hard time falling asleep
• Feeling tired or having no energy	• Difficulty working on a computer
• Nothing thinking clearly	• Difficulty reading
• Losing sense of time	• Difficulty learning new information

- Early identification of a suspected concussion is important to properly manage a suspected concussion. As soon as a concussion is suspected, the individual should be removed from play. Removing an athlete from play is critical for preventing subsequent concussions and making the condition of the athlete worse.

IDENTIFICATION OF SUSPECTED CONCUSSION

- A concussion should be suspected in any athlete 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 \(CRT5\)](#). 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.

9. In some cases, an athlete may demonstrate signs or symptoms of a more severe head or spine injury including convulsions, worsening headaches, vomiting or neck pain. If an athlete demonstrates any of the “Red Flags” indicated in the CRT5, a more severe head or spine injury should be suspected, and Emergency Medical Assessment should be pursued.

DOCUMENTATION OF INCIDENT

10. Tracking the incidence of suspected concussion is a key component of the Freestyle BC concussion policy. Freestyle BC will use the Freestyle Canada Accident Report to record the details of the incident to Freestyle Canada. The accident report will record the date, time, location, weather conditions, course conditions and describe the mechanics of the incident.
11. The Freestyle Canada Accident Report will be submitted to Freestyle Canada by the proper authority (e.g. Head Coach, Coach Developer, etc.). If the incident occurs during training, the Coach will be required to submit the Freestyle Canada Accident Report within 48 hours of the incident. If the incident occurs during a competition, the Technical Delegate (or Event Organizer) will submit the Freestyle Canada Accident Report within 48 hours of the incident.
12. Coaches will follow up with their athletes to determine if a physician has diagnosed concussion and, if required, request that a formal note from the physician be provided.

ON-SITE MEDICAL ASSESSMENT

13. Depending on the suspected severity of the injury, an initial assessment may be completed by emergency medical professionals or by an on-site licensed healthcare professional where available. In cases where an athlete loses consciousness or it is suspected an athlete might have a more severe head or spine injury, Emergency Medical Assessment by emergency medical professionals should take place (see “13a” below). If a more severe injury is not suspected, the athlete should undergo Sideline Medical Assessment or Medical Assessment, depending on if there is a licensed healthcare professional present (see “13b” below).

a. **Emergency Medical Assessment**

If an athlete is suspected of sustaining a more severe head or spine injury during an event or training, an ambulance should be called immediately to transfer the patient 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 athlete until an ambulance has arrived. The athlete should not be left alone until the ambulance arrives. After the emergency medical services staff has completed the Emergency Medical Assessment, the athlete should be transferred to the nearest hospital for Medical Assessment. In the case of youth (under 18 years of age), the athlete's parents should be contacted immediately to inform them of the athlete's injury. For athletes over 18 years of age, their emergency contact person should be contacted if one has been provided

Who: Emergency medical professionals

b. **Sideline Medical Assessment**

If an athlete is suspected of sustaining a concussion and there is no concern for a more serious head or spine injury, the athlete should be immediately removed from the sport environment.

Who: Athletic therapists, physiotherapists, medical doctor

How: [Sport Concussion Assessment Tool 5 \(SCAT5\)](#), [Child Sport Concussion Assessment Tool 5 \(Child SCAT5\)](#)

MEDICAL ASSESSMENT

14. In order to provide comprehensive evaluation of athletes 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, medical doctors that are qualified to evaluate patients with a suspected concussion include: pediatricians; family medicine, sports medicine, emergency department, internal medicine, orthopedic surgeons, and rehabilitation (physiatrists) physicians; neurologists; and neurosurgeons.
15. In geographic regions of Canada 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 athlete has been diagnosed with a concussion or not. Athletes with a diagnosed concussion should be provided with a Medical Assessment Letter indicating a concussion has been diagnosed. Athletes 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 athlete can return to school, work and sports activities without restriction.

Who: Medical doctor, nurse practitioner, nurse

How: Medical Assessment Letter (See Appendix B)

CONCUSSION MANAGEMENT

16. When an athlete has been diagnosed with a concussion, it is important that the athlete's parent/legal guardian is informed. All athletes diagnosed with a concussion must be provided with a standardized Medical Assessment Letter that notifies the athlete 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 athlete or their parent/legal guardian to provide this documentation to the athlete's coaches, teachers, or employers. It is also important for the athlete to provide this information to sport organization officials that are responsible for injury reporting and concussion surveillance where applicable.
17. Athletes 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. Athletes 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 or nurse practitioner. When available, 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 the athlete has 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 and issue a Medical Clearance Letter (See Appendix C).
18. The stepwise progressions for Return-to-School and Return-to-Sport Strategies are outlined below. As indicated in stage 1 of the Return-to-Sport Strategy, reintroduction

of daily, school, and work activities using the Return-to-School Strategy must precede return to sport participation.

RETURN-TO-SCHOOL STRATEGY

19. The following is an outline of the Return-to-School Strategy that should be used to help student-athletes, parents, and teachers to collaborate 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. Athletes should also be encouraged to ask their school if they have a school-specific Return-to-Learn Program in place to help student-athletes make a gradual return to school.

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 schoolwork

RETURN-TO-SPORT STRATEGY

20. The following is an outline of the **Freestyle Canada**-Specific 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. An initial period of 24-48 hours of rest is recommended before starting the **Freestyle Canada - Specific Return-to-Sport Strategy**. The athlete should spend a minimum duration of 24 hours without symptom increases at each stage before progressing to the next one. If the athlete experiences new symptoms or worsening symptoms at any stage, they should go back to the previous stage.

- a. **It is important that youth and adult student-athletes return to full-time school activities before progressing to stage 5 and 6 of the Freestyle Canada Specific Return-to-Sport Strategy.**

- b. It is also important that all athletes provide their coach and Freestyle BC with a *Medical Clearance Letter* prior to returning to full contact sport activities.

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

How: *Return-to-Learn Strategy, Sport-Specific Return-to Sport Strategy, Medical Assessment Letter (See Appendix C)*

STEP	ACTIVITY LEVEL	FREESTYLE SKI CONTEXT	Symptoms Present?	
			Yes	No
1	No activity, only complete rest.	Minimum of 24-48 hours of rest. Limit school, work and tasks requiring concentration. Refrain from physical activity until symptoms are gone.		A physician, should be consulted before moving to step 2
2	Light aerobic exercise.	Activities such as walking or stationary cycling. Someone who can help monitor for symptoms and signs should supervise the athlete. No resistance training or weightlifting. The duration and intensity of the aerobic exercise can be gradually increased over time if no symptoms or signs return during the exercise or the next day. Follow this 2-step process with 24 hours of rest between each step. Step 1 - 15 minutes on stationary bicycle, rest 24 hrs. If symptom free go to step 2 Step 2 - 60 minutes of more aggressive cardio work (75% of max Heart Rate) such as bike or jogging.	Return to rest and step 1 until symptoms have resolved. If symptoms persist, consult a physician.	Proceed to Step 3 only if athlete is: asymptomatic after 60-minute cardio session
3	Sport specific activities	Consider off snow sport specific progressions prior to returning to snow – in snow sports this is a common point of discussion given the risk of falling when on snow – thus, consider step 3 to be off snow training and step 4 to be return to snow with medical clearance prior to. Continuous skiing for 60 minutes. Gentle skiing on flat, easy terrain. No jumping or jarring movements. No bouncing on trampolines.	Return to rest until symptoms have resolved then resume at step 2. If symptoms persist, consult a physician.	Proceed to Step 4 the next day if asymptomatic.
4	Begin Discipline Specific	60 minutes of continuous discipline-specific training (on or off snow) - Skiing on moderate, terrain with moguls.	Return to rest until symptoms have resolved then	The time needed to progress from non-contact exercise

STEP	ACTIVITY LEVEL	FREESTYLE SKI CONTEXT	Symptoms Present?	
			Yes	No
	Drills (up to moderate intensity)	<ul style="list-style-type: none"> - Skiing the halfpipe with small, easy jumps. - Riding "ability appropriate" boxes/rails - No big air tricks. - Small bouncing on trampoline or bounding drills. 	resume at step 3. If symptoms persist, consult a physician.	will vary with the severity of the concussion and with the athlete. Proceed to Step 5 with Medical Clearance Only.
5	Begin Sport Specific Drills (up to full intensity) **	Gradually increase the intensity of training to include all normal training activities.	Return to rest until symptoms have resolved then resume at step 4 If symptoms persist, consult a physician.	Proceed to Step 6 the next day.
6	Game Play	Return to Competition		

MULTIDISCIPLINARY CONCUSSION CARE

21. If available, individuals who experience persistent post-concussion symptoms (>4 weeks for youth athletes, >2 weeks for adult athletes) may benefit from referral to a medically supervised multidisciplinary concussion clinic that has access to professionals with licensed training in traumatic brain injury that may include experts in sport medicine, neuropsychology, physiotherapy, occupational therapy, neurology, neurosurgery, and rehabilitation medicine.
22. Referral to a multidisciplinary clinic for assessment should be made on an individualized basis at the discretion of an athlete's medical doctor or nurse practitioner. If access to a multidisciplinary concussion clinic is not available, a referral to a medical doctor with clinical training and experience in concussion (e.g. a sport medicine physician, neurologist, or rehabilitation medicine physician) should be considered for the purposes of developing an individualized treatment plan.

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

RETURN TO SPORT

23. 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 Freestyle Canada-Specific Return-to-Sport Strategy can be considered for return to full sports activities. The final decision to medically clear an athlete to return to full intensity should be based on the clinical judgment of the medical doctor or nurse practitioner taking into account the athlete'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).
24. Prior to returning to full training and competition, each athlete that has been diagnosed with a concussion must provide their coach with a standardized Medical Clearance Letter that specifies that a medical doctor or nurse practitioner has personally evaluated the patient and has cleared the athlete to return to sports. In geographic regions of Canada with limited access to medical doctors (i.e. rural or northern communities), a licensed healthcare professional (such as a nurse) with pre-arranged access to a medical doctor or nurse practitioner can provide this documentation. A copy of the Medical Clearance Letter should also be submitted to sports organization officials that have injury reporting and surveillance programs where applicable.
25. Athletes who have been provided with a Medical Clearance Letter may return to full sport activities as tolerated. If the athlete 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 athlete sustains a new suspected concussion, the Freestyle BC Concussion Protocol should be followed as outlined here.

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

Document: Standardized Medical Clearance Letter (See Appendix C)

COMMUNICATION

26. The individual, the individual's family, coach and medical professionals must communicate regularly with each other during the recovery process. The coordinated efforts to ensure the proper care and recovery steps are taken will ensure the individual returns to play when fully recovered.

SURVEILLANCE

27. Freestyle BC will determine appropriate methods to collect information regarding suspected concussions, concussion diagnoses and return to play. Data will be reported in an aggregated format without personal identification of any individual.

BASELINE TESTING

28. The following position on baseline testing is consistent with the Parachute Canada position [statement on baseline testing](#).
 - a. Baseline testing of youth and adult recreational athletes using any tool or combination of tools is not required to provide post injury care of those who sustain a suspected or diagnosed concussion. Baseline testing is not recommended in youth athletes regardless of the sport or level of play.
 - b. **Recognize and remove.** Rather than using resources for baseline testing, sport organizations are encouraged to develop processes within their organizations to “recognize and remove” an athlete when a suspected concussion has occurred.

AMENDMENTS

29. The policies in this document may from time to time be revised and amended by the Freestyle BC Board of Directors. Updated documents will be made available on the Freestyle BC website.

Appendix A

Pre-Season Concussion Education Sheet

HOW TO USE THIS EDUCATION SHEET:

Distribute this pre-season concussion education sheet to your athletes and their parents or legal guardians during a pre-season meeting, at the time of registration or the first day of training. We recommend the athlete and parent sign this sheet and a copy of retained by the club

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, hitting one's head on the floor in the gym class, or landing on your side or back while landing during a ski jump.

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 report ANY symptoms or demonstrates ANY visual signs of 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	• Easily upset or angered
• Repetition or confusion	• Feeling slowed down
• Dizziness	• Sadness
• Nausea and vomiting	• Nervousness or anxiety
• Blurred or fuzzy vision	• Feeling more emotional
• Sensitivity to light or sound	• Sleeping more or sleeping less
• Balance problems	• Having a hard time falling asleep
• Feeling tired or having no energy	• Difficulty working on a computer
• Nothing thinking clearly	• Difficulty reading
• Losing sense of time	• Difficulty learning new information

WHAT ARE THE VISUAL SIGNS OF A CONCUSSION?

Visual signs of a concussion may include:

<ul style="list-style-type: none"> Lying motionless on the playing surface 	<ul style="list-style-type: none"> Blank or vacant stare
<ul style="list-style-type: none"> Slow to get up after a direct or indirect hit to the head 	<ul style="list-style-type: none"> Balance, gait difficulties, motor incoordination, stumbling slow labored movements
<ul style="list-style-type: none"> Disorientation or confusion or inability to respond appropriately to questions 	<ul style="list-style-type: none"> Facial injury after head trauma
	<ul style="list-style-type: none"> 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 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 AN ATHLETE RETURN TO SCHOOL OR 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-Sports 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-Sports strategy.

Return-to-School Strategy

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	Increase tolerance to

Stage	Aim	Activity	Goal of each step
		activities outside of the classroom.	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-Sports Strategy

STEP	ACTIVITY LEVEL	FREESTYLE SKI CONTEXT	Symptoms Present?	
			Yes	No
1	No activity, only complete rest.	Minimum of 24-48 hours of rest. Limit school, work and tasks requiring concentration. Refrain from physical activity until symptoms are gone.		A physician, should be consulted before moving to step 2
2	Light aerobic exercise.	Activities such as walking or stationary cycling. Someone who can help monitor for symptoms and signs should supervise the athlete. No resistance training or weight lifting. The duration and intensity of the aerobic exercise can be gradually increased over time if no symptoms or signs return during the exercise or the next day. Follow this 2-step process with 24 hours of rest between each step. <ul style="list-style-type: none"> a) Step 1 - 15 minutes on stationary bicycle, rest 24 hrs. If symptom free go to step 2 b) Step 2 - 60 minutes of more aggressive cardio work (75% of max Heart Rate) such as bike or jogging. 	Return to rest and step 1 until symptoms have resolved. If symptoms persist, consult a physician.	Proceed to Step 3 only if athlete is: asymptomatic after 60 minute cardio session
3	Sport specific activities	Gentle skiing on flat, easy terrain. No jumping or jarring movements. No bouncing on trampolines.	Return to rest until symptoms have resolved then resume at step 2.	Proceed to Step 4 the next day if asymptomatic.

STEP	ACTIVITY LEVEL	FREESTYLE SKI CONTEXT	Symptoms Present?	
			Yes	No
		Continuous skiing for 60 minutes.	If symptoms persist, consult a physician.	
4	Begin Discipline Specific Drills (up to moderate intensity)	60 minutes of continuous discipline-specific training (on or off snow) - Skiing on moderate, terrain with moguls. - Skiing the halfpipe with small, easy jumps. - Riding “ability appropriate” boxes/rails - No big air tricks. - Small bouncing on trampoline or bounding drills.	Return to rest until symptoms have resolved then resume at step 3. If symptoms persist, consult a physician.	The time needed to progress from non-contact exercise will vary with the severity of the concussion and with the athlete. Proceed to Step 5 with Medical Clearance Only.
5	Begin Sport Specific Drills (up to full intensity) **	Gradually increase the intensity of training to include all normal training activities.	Return to rest until symptoms have resolved then resume at step 4 If symptoms persist, consult a physician.	Proceed to Step 6 the next day.
6	Game Play	Return to Competition		

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 (less than 18 years of age) 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.



HOW CAN I HELP PREVENT CONCUSSIONS AND THEIR CONSEQUENCES?

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

TO LEARN MORE ABOUT CONCUSSIONS PLEASE VISIT: 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 B

Medical Assessment Letter

To the Physician/NP: This athlete has been identified as having possibly sustained a concussion. Freestyle BC's policy is that all athletes who sustain a suspected concussion should be reviewed by a physician or nurse practitioner, as per the Canadian Guideline on Concussion in Sport. (<https://parachute.ca/en/professional-resource/concussion-collection/canadian-guideline-on-concussion-in-sport/>) We appreciate your assistance in helping this athlete safely return to his or her sport.*

Date: _____

Athlete Name: _____

Results of the 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:

- This patient has been diagnosed with a concussion.

- In the management of this confirmed concussion, I would recommend that this patient be allowed to participate in school and low-risk physical activity as tolerated starting on _____ (date).

Other Comments:

I have personally completed a Medical Assessment of this patient,

Signature/print _____

M.D. / N.P (circle the appropriate designation) *

Freestyle BC greatly appreciates your assistance in completing these form(s).

* 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 be otherwise accepted.

To the Physician/NP in the case of confirmed Concussion:

In order to assist you in helping this athlete safely return to sport, we are providing for your reference the Return-to-School and Return-to-Sport Strategies as outlined in the current Canadian Guideline on Concussion in Sports. As you know, 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. Your 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. Your patient has been advised not to 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 (attached), in accordance with the Canadian Guideline on Concussion in Sports.

Return-to-School Strategy

The following is an outline for 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 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.

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

Return-to-Sports Strategy

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.

STEP	ACTIVITY LEVEL	FREESTYLE SKI	
		CONTEXT	Symptoms Present? Yes No
1	No activity, only complete rest.	<p>Minimum of 24-48 hours of rest.</p> <p>Limit school, work and tasks requiring concentration. Refrain from physical activity until symptoms are gone.</p>	<p>A physician, should be consulted before moving to step 2</p>
2	Light aerobic exercise.	<p>Activities such as walking or stationary cycling. Someone who can help monitor for symptoms and signs should supervise the athlete. No resistance training or weight lifting. The duration and intensity of the aerobic exercise can be gradually increased over time if no symptoms or signs return during the exercise or the next day.</p> <p>Follow this 2-step process with 24 hours of rest between each step.</p> <p>a) Step 1 - 15 minutes on stationary bicycle, rest 24 hrs. If symptom free go to step 2</p> <p>b) Step 2 - 60 minutes of more aggressive cardio work (75% of max Heart Rate) such as bike or jogging.</p>	<p>Return to rest and step 1 until symptoms have resolved.</p> <p>If symptoms persist, consult a physician.</p>
3	Sport specific activities	<p>Gentle skiing on flat, easy terrain. No jumping or jarring movements. No bouncing on trampolines.</p> <p>Continuous skiing for 60 minutes.</p>	<p>Return to rest until symptoms have resolved then resume at step 2.</p> <p>If symptoms persist, consult a physician.</p>
4	Begin Discipline Specific Drills (up to moderate intensity)	<p>60 minutes of continuous discipline-specific training (on or off snow)</p> <ul style="list-style-type: none"> - Skiing on moderate, terrain with moguls. - Skiing the halfpipe with small, easy jumps. - Riding "ability appropriate" boxes/rails - No big air tricks. - Small bouncing on trampoline or bounding drills. 	<p>Return to rest until symptoms have resolved then resume at step 3.</p> <p>If symptoms persist, consult a physician.</p>

STEP	ACTIVITY LEVEL	FREESTYLE SKI CONTEXT	Symptoms Present?	
			Yes	No
5	Begin Sport Specific Drills (up to full intensity) **	Gradually increase the intensity of training to include all normal training activities.	Return to rest until symptoms have resolved then resume at step 4 If symptoms persist, consult a physician.	Proceed to Step 6 the next day.
6	Game Play	Return to Competition		

What if symptoms occur? 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 practice or games and sustains a new suspected concussion should be managed according to the *Canadian Guideline on Concussion in Sport*.



Appendix C

Medical Clearance Letter

Date: _____

Athlete Name: _____

This athlete has been followed by me for a concussive injury. I have monitored the athlete's progression through the Return to School and Return to Sport Strategies as outlined in the Canadian Guideline on Concussion in Sports. As per the Guideline, clearance by a medical doctor or nurse practitioner is required before the athlete can return to any activity with significant risk of recurrent head injury.

In my opinion, the athlete is now ready to return to:

- Full-contact practice (including gym class activities with risk of contact and head impact, e.g. soccer, dodgeball, basketball)
- Full game play

Other Comments:

Signature/print _____

M.D. / N.P (circle the appropriate designation) *

Freestyle BC greatly appreciates your assistance in completing these form(s).

* 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 be otherwise accepted.

Appendix D

Concussion Recognition Tool 5 (CRT5)

Available on-line at: <http://bjism.bmj.com/content/bjsports/51/11/872.full.pdf>

CONCUSSION RECOGNITION TOOL 5 ©

To help identify concussion in children, adolescents and adults



FIFA®

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RECOGNISE & REMOVE

Head impacts can be associated with serious and potentially fatal brain injuries. The Concussion Recognition Tool 5 (CRT5) is to be used for the identification of suspected concussion. It is not designed to diagnose concussion.

STEP 1: RED FLAGS – CALL AN AMBULANCE

If there is concern after an injury including whether ANY of the following signs are observed or complaints are reported then the player should be safely and immediately removed from play/game/activity. If no licensed healthcare professional is available, call an ambulance for urgent medical assessment:

- Neck pain or tenderness
- Double vision
- Weakness or tingling/ burning in arms or legs
- Severe or increasing headache
- Seizure or convulsion
- Loss of consciousness
- Deteriorating conscious state
- Vomiting
- Increasingly restless, agitated or combative

Remember:

- In all cases, the basic principles of first aid (danger, response, airway, breathing, circulation) should be followed.
- Assessment for a spinal cord injury is critical.
- Do not attempt to move the player (other than required for airway support) unless trained to do so.
- Do not remove a helmet or any other equipment unless trained to do so safely.

If there are no Red Flags, identification of possible concussion should proceed to the following steps:

STEP 2: OBSERVABLE SIGNS

Visual clues that suggest possible concussion include:

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

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STEP 3: SYMPTOMS

- Headache
- "Pressure in head"
- Balance problems
- Nausea or vomiting
- Drowsiness
- Dizziness
- Blurred vision
- Sensitivity to light
- Sensitivity to noise
- Fatigue or low energy
- "Don't feel right"
- More emotional
- More Irritable
- Sadness
- Nervous or anxious
- Neck Pain
- Difficulty concentrating
- Difficulty remembering
- Feeling slowed down
- Feeling like "in a fog"

STEP 4: MEMORY ASSESSMENT

(IN ATHLETES OLDER THAN 12 YEARS)

Failure to answer any of these questions (modified appropriately for each sport) correctly may suggest a concussion:

- "What venue are we at today?"
- "Which half is it now?"
- "Who scored last in this game?"
- "What team did you play last week/game?"
- "Did your team win the last game?"

Athletes with suspected concussion should:

- Not be left alone initially (at least for the first 1-2 hours).
- Not drink alcohol.
- Not use recreational/ prescription drugs.
- Not be sent home by themselves. They need to be with a responsible adult.
- Not drive a motor vehicle until cleared to do so by a healthcare professional.

The CRT5 may be freely copied in its current form for distribution to individuals, teams, groups and organisations. Any revision and any reproduction in a digital form requires approval by the Concussion in Sport Group. It should not be altered in any way, rebranded or sold for commercial gain.

ANY ATHLETE WITH A SUSPECTED CONCUSSION SHOULD BE IMMEDIATELY REMOVED FROM PRACTICE OR PLAY AND SHOULD NOT RETURN TO ACTIVITY UNTIL ASSESSED MEDICALLY, EVEN IF THE SYMPTOMS RESOLVE

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Appendix E

Concussion Action Plan (Pathway)



Concussion Action Plan

