



BIATHLON ONTARIO

Concussion Management Policy

Biathlon Ontario is committed to seeing practices recommended by the Ministry of Tourism, Culture and Sport, as well as Biathlon Canada, be used to ensure that those diagnosed with a concussion are properly reintroduced to the biathlon programs.

Purpose

The purpose of this Concussion Policy and Code of Conduct is to increase education and awareness for coaches, parents/guardians, biathletes, officials, managers and other team or club members on the signs and symptoms of concussion and the specific protocols for managing concussion in Biathlon Ontario (BION) sanctioned activities. This Concussion Policy and Code of Conduct aims to 1) ensure that biathletes with a suspected concussion are removed-from-sport and seek medical assessment and 2) all biathletes with a suspected and/or diagnosed concussion do not participate in BION sanctioned activities before being medically cleared to return.

Jurisdiction

This Concussion Policy and Code of Conduct applies to coaches and team trainers of all BION sanctioned teams, to athletes participating in all BION sanctioned activities, and to parents/guardians of biathletes.

Concussion Awareness Resources & Education:

For Coaches & Team Trainers

Every coach and team trainer of every BION sanctioned team and program is responsible for:

- a) Reviewing annually (and confirming such review as required by BION) the concussion awareness resources available from the Ontario Ministry of Tourism, Culture and Sport website (MTCS); and
- b) Reviewing annually (and confirming such review as required by BION) this Concussion Policy and Code of Conduct annually and implementing it in all BION sanctioned activities. Any changes to this Concussion Policy and Code of Conduct will be highlighted and communicated prior to the start of a season.

For Biathletes

Every participant in a BION sanctioned activity is responsible for:

- a) Confirming annually as required by BION their review of the concussion awareness resources available from the Ontario Ministry of Tourism, Culture and Sport website; and
- b) Confirming annually as required by BION their review of this Concussion Policy and Code of Conduct.



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If a participant is under 18 years of age, the parents/guardians of such participant is also responsible for a) and b) above.

Annual Evaluation of Concussion Policy & Code of Conduct

BION will evaluate the effectiveness of this Concussion Policy and Code of Conduct and its implementation annually and make changes as necessary.

BION Concussion Recognition & Removal-from-Play & Return-to-Play Protocols

Step 1: Recognition

Recognizing a suspected concussion and removal from biathlon

a) What is a concussion? A concussion is a traumatic brain injury caused by a blow to the head, face or neck or to another part of the body that causes the brain to move inside the skull and results in changes to how the brain functions. A concussion is a serious injury that can have significant impact on a person's cognitive, physical and emotional functioning. A concussion is different from most other injuries because there are not always observable signs that a concussion has occurred and symptoms may not appear immediately after the impact. Additionally, a concussion cannot be seen on X-rays, standard CT scans or MRIs.

b) When should a concussion be suspected? All biathletes who experience any reported concussion signs and symptoms (**FIGURE 1**) or visual/observable symptoms (**FIGURE 2**) following a blow to the head or another part of the body is considered to have a suspected concussion and must stop participation in the BION sanctioned activity immediately. Symptoms of concussion typically appear immediately but may be delayed and evolve within the first 24-48 hours.

c) A suspected concussion can be recognized in three ways:

1. Reported signs and symptoms by a player – even if only one symptom (Figure 1)
2. Visual/observable signs and symptoms from any team official (Figure 2)
3. Peer-reported signs and symptoms from biathletes, parents and team officials (Figure 1 and 2)
4. If a player experiences a sudden onset of any of the "red flag symptoms", 911 should be called immediately (Figure 3). As well, in any situation, the head coach must call 911 if, in the head coach's opinion, doing so is necessary. If in doubt, sit them out.

Figure 1: REPORTED CONCUSSION SIGNS & SYMPTOMS

Headache	Feeling mentally foggy	Sensitive to light
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Nausea	Feeling slowed down	Sensitive to noise
Dizziness	Difficulty concentrating	Irritability
Vomiting	Difficulty remembering	Sadness
Visual problems	Drowsiness	Nervous/anxious
Balance problems	Sleeping more/less than usual	More emotional
Numbness/tingling	Trouble falling asleep	Fatigue

Figure 2: VISUAL/OBSERVABLE SYMPTOMS

Lying down motionless on the playing surface
Slow to get up after direct or indirect hit
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

Figure 3: RED FLAG SYMPTOMS

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



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Seizure or convulsion

Focal neurological signs (e.g. paralysis, weakness, etc.)

In any situation, the head coach must call 911 if, in the head coach's opinion, doing so is necessary. If in doubt, sit them out.

Note: The [Concussion Recognition Tool 5](#) is valuable for all first responders in recognizing suspected concussion and responding to more severe brain injury or potential neck injury. In any situation, the head coach must call 911 if, in the head coach's opinion, doing so is necessary. If in doubt, sit them out.

Step 2: Removal-from-Play Protocol

Ensuring immediate and safe removal of a suspected concussion from activity

a) Who is responsible for removal from play? If a suspected concussion occurs, coaches are to remove biathletes with a suspected concussion from participation in the BiON activity immediately. However, all team officials (head coach, assistant coach, trainer, manager, assistant manager, match officials or executive member) hold a responsibility to recognize the signs and symptoms of concussion, and report the suspected concussion to the head coach. If there is doubt whether a concussion has occurred, it is to be assumed that it has and the player is to be removed from play. **If in doubt, sit them out.** As well, if an athlete is under 18 years of age, the parents/guardians of such athlete must be informed of the removal.

Note: When present and hired by BION to do so, healthcare professionals may complete sideline assessment and be the primary person responsible for Removal-from-Play (Step 2) and use clinical tools (i.e. Child SCAT5 or SCAT 5) to document initial neurological status. However, these tools should not be used to make Return-to-Play decisions, and every player with a suspected concussion must be referred to a medical doctor (Step 4) and must not return to the activity until medically cleared to do so in accordance with the Return-to-Play Protocol.

b) Monitoring the player: Head coaches are responsible for ensuring the player with a suspected concussion is monitored until a parent/guardian is contacted, informed of the removal, and on-site. Biathletes with a suspected concussion should not be left alone or drive a motor vehicle.

c) Red Flag Symptoms: If there are any red flag symptoms or a neck injury is suspected, or in **ANY** situation where, in the head coach's opinion, doing so is necessary, activate your Emergency Action Plan and call 911 immediately. The player should not be moved and should only be removed from the play by emergency healthcare professionals with appropriate spinal care. More severe forms of brain injury may be mistaken for concussion. If any of the red flags symptoms (**FIGURE 3**) are observed or reported within 48 hours of an injury or in **ANY** situation where, in the head coach's opinion, doing so is necessary, the



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player should be transported for urgent medical assessment at the nearest emergency department.

Step 3: Reporting a Suspected Concussion & Referring for Medical Assessment

Head coaches are responsible for reporting suspected concussions immediately after a potential concussion has occurred.

Head coaches must provide copies of their reports to:

1. The individual's parents/guardian to bring to their medical appointment
2. The member club's administrator
3. To BiON (within 24 hours of completing the report)

c) Referring for medical assessment: Head coaches are also to recommend to the player's parent/guardian that they see a **medical doctor or nurse practitioner** Biathletes with suspected concussions may not return to any BiON activity until they've received medical assessment and submitted necessary documentation (see steps 4 & 5).

Step 4: Initial Medical Assessment

Assessment and diagnosis by a medical doctor (MD) or nurse practitioner (NP)

a) Head coach: Additional Immediate Responsibilities: The **head coach** is also responsible for:

- a. advising the athlete (or, if the athlete is under 18 years of age, the athlete's parent/guardian) that the athlete is required to undergo a medical assessment by a physician or a nurse practitioner before the athlete will be permitted to return to training, practice or competition in accordance with the Return-to-Play Protocol; and
- b. providing the athlete (or, if the athlete is under 18 years of age, the athlete's parent/guardian) a copy of this Concussion Policy and Code of Conduct as soon as practicable after the athlete is removed from further practice, training or competition.

b) Seeking medical assessment: If a player has been deemed to have had a suspected concussion, it is the parent/guardian's responsibility to take the player to see a medical doctor or nurse practitioner immediately.

Step 5: Medical Diagnosis

Submission of medical documentation of concussion diagnosis

a) If a medical doctor / nurse practitioner determines that the player with a suspected concussion does not have a concussion:

- i. Parent/guardian must take the written documentation from the medical doctor/nurse practitioner (highlighting that the player did not have a concussion), and provide this documentation to their head coach.



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- ii. It is the responsibility of each parent/guardian to submit all documentation to their head coach before the player is permitted to return to a full practice and/or race in a BION sanctioned activity.
- iii. The head coach must send all such documentation immediately to BiON VP Tech via electronic or physical communication mediums.
- iv. Parent/guardian should continue to monitor the player for at least 24-72 hours after the event, as signs and symptoms may take hours or days to appear.
- v. Head coaches have the right to refuse a player to return to any BION sanctioned activity if they deem the player unfit to do so.

b) If a medical doctor/nurse practitioner determines that the player with a suspected concussion does have a concussion:

- i. Parent/guardian must take the written documentation from the medical doctor/nurse practitioner (highlighting that the player has been diagnosed with a concussion) to their head coach.
- ii. The head coach must send all such documentation immediately to BiON VP Tech via electronic or physical communication mediums.
- iii. When the Medical Assessment Letter indicates a concussion has occurred, the participant must complete each stage of the Return-to-Play Protocol (Figure 4). An initial period of 24 to 48 hours of both relative physical rest and cognitive rest is recommended before beginning the Return-to-Play Protocol (Figure 4).

Note: Written documentation by medical doctor or nurse practitioner may be provided in any format from medical assessment.

Step 6: Concussion Management

Initial recovery and management

An initial period of 24-48 hour of rest is recommended before starting the Return-to-Play Protocol. Most biathletes 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 4 weeks of injury. However, approximately 15-30% will experience symptoms that persist beyond that timeframe. If available, biathletes who experience persistent concussion symptoms for longer than four weeks may benefit from a referral to a medically-supervised multidisciplinary concussion service.

Step 7: Return-to-Play and Medical Clearance

BION Return-to-Play Protocol (see also Figure 4 below).

- a) After an initial period of **24-48 hours** of rest, the player with a concussion must complete each stage of the Return-to-Play Protocol (Figure 4).



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- b) Parent/guardian and the player are responsible to ensure that each stage of the Return-to-Play Protocol (Figure 4) is followed appropriately. Biathletes must be able to participate in each stage's activities for a **minimum of 24 hours without experiencing symptoms during or after the activities before moving onto the next stage.**
- c) If the player experiences onset or worsening of symptoms during or after the activities in any stage, the player should stop that activity and return to the previous successful stage as tolerated.
- d) Once Stages 1-4 of the Return-to-Play Protocol (Figure 4) have been completed, the player must receive **medical clearance** to proceed to Stage 5: Full practice with team (i.e. unrestricted practice). A player is not permitted to return to Stage 5: Full contact practice with team (i.e. unrestricted practice) or Stage 6: Game Play until written permission by a medical doctor/nurse practitioner.
- e) Once medical clearance for Stage 5: Full contact practice with team (i.e. unrestricted practice) is obtained, the parent/guardian must take the written clearance from the medical doctor/nurse practitioner (highlighting player is safe to return to full team practice and game play) and provide the written clearance from the medical doctor/nurse practitioner to the head coach and the member club administrator before the player is permitted to return to a Stage 6: Return to competition. (See Figure 4 below.)
- f) The head coach must submit the written clearance from the medical doctor/nurse practitioner immediately to BiON VP Tech via electronic or physical communication mediums.
- g) The player should not progress to game play until they have regained their pre-injury skill-level and is confident in their ability to return to activity.
- h) Head coaches have the right to refuse a player to return to any BION-sanctioned activity if they deem the player unfit to do so.

Figure 4: Return-to-Play Protocol

This Return-to-Play Protocol applies in circumstances where either a head coach, a member club or BION becomes aware that one of its athletes has sustained a concussion or is suspected of having sustained a concussion, regardless of whether or not the concussion was sustained or is suspected of having been sustained during a biathlon activity.

An athlete who is diagnosed by a physician or nurse practitioner as having a concussion must proceed through the graduated return-to-sport steps that are set out in this Protocol.

Each head coach is responsible for ensuring that an athlete who has sustained a concussion or is suspected of having sustained a concussion does not return to training,



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practice or competition until permitted to do so in accordance with this Return-to-Play Protocol.

Stage	Activity	Guidelines
0	Rest	<ul style="list-style-type: none"> Initial mental and physical rest for 24-48 hours.
<p>Requirement: Any athlete who is diagnosed by a physician or nurse practitioner as having a concussion must not be permitted to return to training, practice or competition unless the athlete (or if the athlete is under 18 years of age, the athlete's parent/guardian) has shared the medical advice or recommendations they received (if any) with the head coach.</p>		
<p>Requirement: The head coach must inform an athlete who has been diagnosed as having a concussion or, if the athlete is under 18 years of age, the athlete's parent/guardian of the importance of disclosing the diagnosis to any other sport organization with which the athlete is registered or school that the athlete attends.</p>		
1	Symptom limiting activity	<ul style="list-style-type: none"> 5–10 minute warm up (stretching/flexibility) 15–20 minute cardio workout, which can include: stationary bicycle, elliptical, treadmill, fast-paced walking, light jogging, rowing or swimming
2	Light aerobic activity	<ul style="list-style-type: none"> longer duration stationary bike, stationary nordic track machine No jogging, no outdoor/roller skiing Mild resistance training Core, walking lunges, static squats, and balance training
3	Sport specific exercise	<ul style="list-style-type: none"> Increase time + intensity stationary bike Introduce roller skiing, XC skiing, jogging (=environmental component) **Time/intensity parameters < parameters accomplished on stationary bike> Build time/intensity on roller skiing, XC skiing, jogging to match bike parameters Moderate resistance
4	Sport-specific training	<ul style="list-style-type: none"> Incorporate interval training in cardio routine Return to full time/intensity training session (skiing/rollerskiing/XC skiing)



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		<ul style="list-style-type: none"> Return to regular resistance training drills/routine
<p>Note: Medical clearance letter from a medical doctor or nurse practitioner required before proceeding to Stage 5</p>		
<p>Requirement: The athlete or, if the athlete is under 18 years of age, the athlete's parent/guardian must provide a confirmation of medical clearance by a physician or nurse practitioner to the head coach and the member club administrator before proceeding to Stage 6. The head coach must send the confirmation of medical clearance to BiON VP Tech via electronic or physical communication mediums.</p>		
5	Full intensity practice	<ul style="list-style-type: none"> Progress to pre---injury race parameters: time + intensity + strategy + endurance
6	Return to competition	<ul style="list-style-type: none"> Full participation in practices and competitions 100% intensity

Resources

Coaches Association of Ontario

- Concussion Awareness Resources: <https://coach.ca/concussion-awareness>
- Concussion Recognition Tool 5: <https://coach.ca/sites/default/files/2020-01/CRT5.pdf>
- Concussion eLearning: <https://coach.ca/concussion-awareness>

Parachute

- Canadian Guideline on Concussion in Sport: <https://parachute.ca/en/professional-resource/concussion-collection/canadian-guideline-on-concussion-in-sport/>
- Concussion Protocol Resources for Sports Organizations: <https://parachute.ca/en/professional-resource/concussion-collection/concussion-protocol-resources-for-sport-organizations/>



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Policy Review and Amendments

This policy has been reviewed and approved by Biathlon Ontario Board of Directors on:

Original: 12 Nov 2015

Reviewed and approved: 27 May 2020

David Cheung

Vice President of Administration

Biathlon Ontario