

BC WHEELCHAIR SPORTS ASSOCIATION

Return to Play Policy and Concussion Guidelines

Preamble

1. BCWSA recognizes that both major and minor injuries to participants could cause lasting harm and affect the participant's ability to return to participation.
2. The Concussion Guidelines are based on the 5th Consensus Statement on Concussion in Sport that was released in April 2017. This Policy interprets the information contained in the report that was prepared by the 2017 Concussion in Sport Group (CISG), a group of sport concussion medical practitioners and experts, and adapts concussion assessment and management tools.
3. The CISG suggested 11 'R's of Sport-Related Concussion ("SRC") management to provide a logical flow of concussion management. This Policy is similarly arranged. The 11 R's in this Policy are: Recognize, Remove, Re-Evaluate, Rest, Rehabilitation, Refer, Recover, Return to Sport, Reconsider, Residual Effects, and Risk Reduction.
4. A concussion is a clinical diagnosis that can only be made by a physician. BCWSA accepts no liability for Participants or other individuals in their use or interpretation of this Policy.

Definitions

5. The following terms have these meanings in this Policy:
 - a) *"Participant"* – Coaches, athletes, volunteers, officials and other Registered Individuals
 - b) *"Registered Individuals"* – All individuals employed by, or engaged in activities with BCWSA, including but not limited to, employees, volunteers, sport science and medical personnel, administrators, committee members and Directors and Officers.
 - 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) *"Sport-Related Concussion ("SRC")* – A sport-related concussion is a traumatic brain injury induced by biomechanical forces. Several common features that may be used to define the nature of a SRC may include:
 - i. Caused either by a direct blow to the head, face, neck or elsewhere on the body with an impulsive force transmitted to the head.
 - ii. Typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously. However, in some cases, signs and symptoms evolve over a number of minutes to hours.
 - iii. May result in neuropathological changes, but the acute clinical signs and symptoms largely reflect a functional disturbance rather than a structural injury and, as such, no abnormality may be visibly apparent
 - iv. Results in a range of clinical signs and symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive features typically follows a sequential course. However, in some cases symptoms may be prolonged.

Purpose

6. BCWSA is committed to ensuring the safety of those participating in wheelchair sports. This Policy describes how BCWSA permits participants to return to play after suffering an injury.
7. BCWSA recognizes the increased awareness of concussions and their long-term effects and believes that prevention of concussions is paramount to protecting the health and safety of Participants.
8. This Policy provides guidance in identifying common signs and symptoms of a concussion, protocol to be followed in the event of a possible concussion, and return to participation guidelines should a concussion be diagnosed. Awareness of the signs and symptoms of concussion and knowledge of how to properly manage a concussion is critical to recovery and helping to ensure the individual is not returning to physical activities too soon, risking further complication.

Non-Concussion Injury or Mental Health Challenges

9. For injuries or serious health concerns that are not classified as concussions, but may include both mental health challenges and or physical injuries, BCWSA will not permit the Participant to return to participation unless approved in writing by a college registered medical or mental health practitioner. BCWSA will keep and maintain records of all medical practitioner approval documents.

Concussion - Recognize

10. If any of the following **red flags** are present following an injury, an ambulance should be called and/or an on-site licensed healthcare professional should be summoned:
 - a) Neck pain or tenderness
 - b) Double vision
 - c) Weakness or tingling / burning in arms or legs
 - d) Severe or increasing headache
 - e) Seizure or convulsion
 - f) Loss of consciousness
 - g) Deteriorating conscious state
 - h) Vomiting
 - i) Increasingly restless, agitated, or combative
11. The following **observable signs** may indicate a possible concussion:
 - a) Lying motionless on the playing surface
 - b) Slow to get up after a direct or indirect hit to the head
 - c) Disorientation or confusion / inability to respond appropriately to questions
 - d) Blank or vacant look
 - e) Balance or gait difficulties, motor incoordination, stumbling, slow laboured movements
 - f) Facial injury after head trauma
12. A concussion may result in the following **symptoms**:
 - a) Headache or “pressure in head”
 - b) Balance problems or dizziness
 - c) Nausea or vomiting
 - d) Drowsiness, fatigue, or low energy
 - e) Blurred vision
 - f) Sensitivity to light or noise
 - g) More emotional or irritable
 - h) “Don’t feel right”

- i) Sadness, nervousness, or anxiousness
- j) Neck pain
- k) Difficulty remembering or concentrating
- l) Feeling slowed down or “in a fog”

13. Failure to correctly answer any of these **memory questions** may suggest a concussion (the questions should change depending on the sport):
- a) What venue are we at today?
 - b) Who scored last in this game?
 - c) Which period is it?
 - d) What team did you play last game?
 - e) Did your team win last game?

Remove

14. In the event of a Suspected Concussion where there are **observable signs** of a concussion, **symptoms** of a concussion, or a failure to correctly answer **memory questions**, the Participant should be immediately removed from participation.
15. Participants who have a Suspected Concussion and who are removed from participation should:
- a) Not be left alone (at least for the first 1-2 hours)
 - b) Not drink alcohol
 - c) Not use recreational/prescription drugs
 - d) Not be sent home by themselves
 - e) Not drive a motor vehicle until cleared to do so by a medical professional
16. A Participant who has been removed from participation due to a suspected concussion should not return to participation until the Participant has been assessed medically, preferably by a physician who is familiar with the [Sport Concussion Assessment Tool – 5th Edition \(SCAT5\)](#) (for Participants over the age of 12) or the [Child SCAT5](#) (for Participants between 5 and 12 years old), even if the symptoms of the concussion resolve.
17. For Participants who have been removed from participation, the Participant’s parent/guardian should be immediately contacted. The Participant should be isolated in a dark room or area, stimulus should be reduced, the Participant should not be left alone, the Participant should be monitored, and any cognitive, emotional, or physical changes should be documented.

Re-Evaluate

18. A Participant with a Suspected Concussion should be evaluated by a licensed physician who should conduct a comprehensive neurological assessment of the Participant and determine the Participant’s clinical status and the potential need for neuroimaging scans.

Rest and Rehabilitation

19. Participants with a diagnosed SRC should rest during the acute phase (24-48 hours) but can gradually and progressively become more active so long as activity does not worsen the Participant’s symptoms. Participants should avoid vigorous exertion.
20. Participants must consider the diverse symptoms and problems that are associated with SRCs. Rehabilitation programs that involve controlled parameters below the threshold of peak performance should be considered.

Refer

21. Participants who display persistent post-concussion symptoms (i.e., symptoms beyond the expected timeline for recovery – 10-14 days for adults and 4 weeks for children) should be referred to physicians with experience handling SRCs.

Recovery and Return to Sport

22. SRCs have large adverse effects on cognitive functioning and balance during the first 24-72 hours after injury. For *most* Participants, these cognitive defects, balance and symptoms improve rapidly during the first two weeks after injury. An important predictor of slower recovery from an SRC is the severity of the Participant’s initial symptoms following the first few days after the injury.

23. The table below represents a graduated return to sport for most Participants, in particular those that did not experience high severity of initial symptoms after the following the first few days after the injury.

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

Table 1 - Return to Sport Strategy

24. An initial period of 24-48 hours of both physical rest and cognitive rest is recommended before beginning the Return to Sport strategy.

25. There should be at least 24 hours (or longer) for each step. If symptoms reoccur or worsen, the Participant should go back to the previous step.

26. Resistance training should only be added in the later stages (Stage 3 or Stage 4).

27. If symptoms persist, the Participant should return to see a physician.

28. The Participant’s Return-to-Sport strategy should be guided and approved by a physician with regular consultations throughout the process.

29. The Participant must provide BCWSA with a medical clearance form, signed by a physician, following Stage 5 and before proceeding to Stage 6.

Reconsider

30. The 2017 Concussion in Sport Group (CISG) considered whether certain populations (children, adolescents, and elite athletes) should have SRCs managed differently.

31. It was determined that all Participants, regardless of competition level, should be managed using the same SRC management principles.
32. Adolescents (13 to 18 years old) and children (5 to 12 years old) should be managed differently. SRC symptoms in children persist for up to four weeks. More research was recommended for how these groups should be managed differently, but the CISG recommended that children and adolescents should first follow a Return to School strategy before they take part in a Return to Sport strategy. A Return to School strategy is described below.

| Stage | Aim | Activity | Stage Goal |
|-------|--|---|--|
| 1 | Daily activities at home that do not give the child symptoms | Typical activities of the child during the day as long as they do not increase symptoms (e.g., reading, texting, screen time). Start with 5–15 min 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 school activities until a full day can be tolerated | Return to full academic activities and catch up on missed work |

Table 2 - Return to School Strategy

Residual Effects

33. Participants should be alert for potential long-term problems such as cognitive impairment and depression. The potential for developing chronic traumatic encephalopathy (CTE) should also be a consideration, although the CISG stated that *“a cause-and-effect relationship has not yet been demonstrated between CTE and SRCs or exposure to contact sports. As such, the notion that repeated concussion or subconcussive impacts cause CTE remains unknown.”*

Risk Reduction and Prevention

34. BCWSA recognizes that knowing a Participant’s SRC history can aid in the development of concussion management and the Return to Sport strategy. The clinical history should also include information about all previous head, face, or cervical spine injuries. BCWSA encourages Participants to make coaches and other stakeholders aware of their individual histories.
35. For wheelchair sports that require helmets, BCWSA will strongly enforce its helmet policies and will limit physical contact between Participants under the age of 13.

Non-Compliance

36. Failure to abide by any of the guidelines and/or protocols contained within this policy may result in disciplinary action in accordance with the BCWSA’s *Discipline and Complaints Policy*.