CANADA BASKETBALL CONCUSSION POLICY

Preamble

1. This policy is based on the 6th Consensus Statement on Concussion in Sport that was released in June 2023.
2. This policy interprets the information contained in the report that was prepared by the 2022 Concussion in Sport Group (2022 CISG), a group of sport concussion medical practitioners and experts, and adapts concussion assessment and management tools.
3. The CISG suggested 13 Rs of Sport-Related Concussion ("SRC") management to provide a logical flow of concussion management. This policy is similarly arranged. The 13 Rs in this policy are:
    a. Recognize
    b. Reduce
    c. Remove
    d. Re-Evaluate
    e. Rest and Exercise
    f. Rehabilitation
    g. Refer
    h. Recover
    i. Return to Learn & Return to Sport
    j. Reconsider
    k. Residual Effects
    l. Retire
    m. Refine

Risk Reduction, one of the previous *11* Rs based on the 5th Consensus Statement on Concussion in Sport, has been removed.

4. A concussion is a clinical diagnosis that can only be made by a physician. The 2022 CISG achieved consensus on a conceptual definition of a concussion, which is articulated, in part, as follows:
    a. *A Sport-related concussion is a traumatic brain injury caused by a direct blow to the head, neck or body resulting in an impulsive force being transmitted to the brain that occurs in sports and exercise-related activities. This initiates a neurotransmitter and metabolic cascade, with possible axonal injury, blood flow change and inflammation affecting the brain. Symptoms and signs may present immediately, or evolve over minutes or hours, and commonly resolve within days, but may be prolonged […] Sport-related concussion results in a range of clinical symptoms and signs that may or may not involve loss of consciousness.*
5. Relevant definitions for the purposes of this policy are as follows:
    a. **Cervicovestibular Rehabilitation**: A type of rehabilitation program that usually includes education, cervical spine therapy and exercise along with vestibular rehabilitation (an exercise-based treatment that helps with the vestibular system, which affects balance and spatial orientation).

b. **Complete symptom resolution:** resolution of symptoms associated with the current concussion at rest with no return of symptoms during or after maximal physical and cognitive exertion.
c. **Designated Person**: Refers to a person designated by Canada Basketball removal-from-sport protocol and by its return-to-sport protocol for the purposes of fulfilling various duties indicated in this Policy.
d. **Return-to-learn (RTL**): return to preinjury learning activities with no new academic support, including school accommodations or learning adjustments.
e. **Return-to-sport (RTS):** completion of the RTS strategy with no symptoms and no clinical findings associated with the current concussion at rest and with maximal physical exertion.
f. **Sport Related Concussion (SRC)**: See above for the conceptual definition at section **4(a)**.
g. **Symptom resolution at rest**: resolution of symptoms associated with the current concussion at rest.

Recognizing Concussions

6. If an Organizational Participant demonstrates or reports any of the following **red flags**, a Designated Person for Ontario, or a licensed healthcare professional for any organization outside of Ontario shall be summoned and, if deemed necessary, an ambulance should be called[1]:
   a) Neck pain or tenderness
   b) Seizure, 'fits' or convulsion
   c) Loss of vision or double vision
   d) Actual or suspected loss of consciousness
   e) Increased confusion or deteriorating conscious state (becoming less responsive, drowsy);
   f) Weakness or numbness / tingling / burning in arms or legs
   g) Severe or increasing headache
   h) Vomiting more than once
   i) Increasingly restless, agitated, or combative; and/or
   j) Visible deformity of the skull.
7. The following **observable signs** may indicate a possible concussion:
   a) Loss of consciousness or responsiveness
   b) Lying motionless on the playing surface
   c) Falling unprotected to the surface
   d) Disorientation or confusion, staring or limited responsiveness, or an inability to respond appropriately to questions
   e) Dazed, blank or vacant look
   f) Seizure, fits or convulsions
   g) Slow to get up after a direct hit or indirect hit to the head
   h) Balance or gait difficulties, absence of regular motor coordination, stumbling, slow laboured movements; and/or
   i) Facial injury after head trauma

[1] If an onsite healthcare professional is not available, an ambulance should be called.

8. A concussion may result in the following **symptoms**:

Physical Symptoms

a) Headache or "pressure in head"
b) Balance problems or dizziness
c) Nausea or vomiting
d) Drowsiness, fatigue, or low energy
e) Dizziness
f) Blurred vision
g) Sensitivity to light or noise
h) "Don't feel right"
i) Neck pain

Changes in Emotions

j) More emotional or irritable
k) Sadness, nervous or anxious

Changes in Thinking

l) Difficulty remembering or concentrating
m) Feeling slowed down or "in a fog"

9. Failure to correctly answer any of these **memory questions** may suggest a concussion:
   a) What day is it?
   b) What venue are we at today? / Where are we today?
   c) What event were you just participating in?
   d) Who last scored a point in this game?
   e) What team did you play against last week?
   f) Did you win the last game you played?

Reduce

10. The 2022 CISG identified several recommendations with respect to preventing concussions, including Concussion Management, which is relevant to Canada Basketball's application of this policy:
    a. Optimal concussion management strategies including implementing laws and protocols (i.e., mandatory removal from play following actual or suspected concussion; requirements to receive clearance to return-to-play from a healthcare provider; and education of coaches, parents and athletes regarding concussion signs and symptoms) are associated with a reduction in recurrent concussion rates.

Removal from Sport Protocol

11. Removal of a player from the field of play should be done if there is suspicion of a possible concussion to avoid further potential injury.
12. 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 Organizational Participant must be immediately removed from participation by a designated person who is either an on-site Canada Basketball staff member and/or Designated Person
13. In the event that any Organizational Participant exhibits any of the following;
    a. Impact seizure

b. Tonic Posturing
c. Ataxia (lack of coordination; losing muscle control in limbs and extremities)
d. Poor balance
e. Amnesia

they should not return to a match or training that day, unless evaluated acutely by an experienced healthcare practitioner with a multimodal assessment (as noted below) who determines that the sign was not related to a concussion (e.g., the player has sustained a musculoskeletal injury and thus unable to balance). Maddocks' questions, as newly modified per the Concussion Recognition Tool 6 (**CRT6**) outlined above in Section 16, remain part of a useful and brief on-field screen for Organizational Participants under 12 years of age without clear on-field signs of a concussion. Incorrect answers warrant a more comprehensive off-field evaluation, as does any clinical suspicion of concussion.

14. After removal from participation, the following actions should be taken:
    a) The Designated Person who removed the Organizational Participant should consider calling 9-1-1;
    b) The NLBA or Club/School must make and keep a record of the removal.
    c) The Designated Person must inform the Organizational Participant's parent or guardian if the Organizational Participant is younger than 18 years old, and the Designated Person must inform the parent or guardian that the Organizational Participant is required to undergo a medical assessment by a physician or nurse practitioner before the Organizational Participant will be permitted to return to participation; and
    d) The Designated Person will remind the Organizational Participant, and the Organizational Participant's parent or guardian as applicable, of Canada Basketball/NLBA's Return-to-Sport protocol as described in this Policy.
15. Organizational Participants who have a suspected concussion and who are removed from participation should:
    a) Be isolated in a dark room or area and stimulus should be reduced
    b) Be monitored
    c) Have any cognitive, emotional, or physical changes documented
    d) Not be left alone (at least for the first 1-2 hours)
    e) Not drink alcohol
    f) Not use recreational/prescription drugs
    g) Not be sent home by themselves
    h) Not drive a motor vehicle until cleared to do so by a medical professional
    i) Be re-evaluated in the coming hours and days, and follow the guidelines regarding relative rest outlined at **sections 26** and **27** below.
16. An Organizational Participant who has been removed from participation due to a suspected concussion should not return to participation until the Organizational Participant has been assessed medically, preferably by a physician who is familiar with the Sport Concussion Assessment Tool – 6th Edition (SCAT6) (for Organizational Participants over the age of 12) or the Child SCAT6 (for Organizational Participants between 8 and 12 years old), even if the symptoms of the concussion resolve.

Re-Evaluate

17. An Organizational Participant with a suspected concussion should be evaluated by a licensed physician who should conduct a comprehensive neurological assessment of the Organizational Participant and determine the Organizational Participant's clinical status and the potential need for neuroimaging scans. Multimodal and serial evaluations should be conducted by a licensed physician/health care provider in accordance with the Sport Concussion Office Assessment Tool (SCOAT6) or Child Sport Concussion Office Assessment Tool (Child SCOAT6) in addition to the health care provider's clinical insight.

Rest and Exercise

18. Organizational Participants with a diagnosed SRC should engage in relative rest during the acute phase (24-48 hours), which includes activities of daily living and reduced screen time.
19. Organizational Participants can return to light intensity physical activity such as walking that does not more than mildly exacerbate or worsen the Organizational Participant's symptoms during the acute phase (24-48 hours). Organizational Participants should avoid vigorous exertion.
20. Organizational Participants must be consistently aware of their symptoms. Exercise and cognitive exertion should be stopped if concussion symptom exacerbation is more than mild and brief. Exercise may be resumed once symptoms have returned to the prior level.
21. Organizational Participants should be advised to avoid the risk of reinjury (i.e., contact, collision or fall) until determined by a qualified health care provider/licensed physician to be safe for higher risk activities.
22. Should Organizational Participants experience sleep disturbance in the 10 days after SRC, Organizational Participants should know that these disturbances are associated with an increased risk of persisting symptoms, and may warrant evaluation and treatment.

Refer

23. Organizational Participants who display persistent symptoms (i.e., symptoms that persist greater than four (4) weeks across children, adolescents and adults) should be referred to physicians with experience handling SRCs, where the clinical environment allows.

Rehabilitation

24. If dizziness, neck pain and/or headaches persist for more than 10 days, Cervicovestibular Rehabilitation is recommended. This includes, combining cervical spine therapy and exercise along with vestibular rehabilitation, which is an exercise-based treatment to help with the vestibular system, which is responsible for balance and spatial orientation.
    a. If symptoms persist beyond 4 weeks in children and adolescents, active rehabilitation and collaborative care may be of benefit.
    b. For children, adolescents and adults with dizziness/balance problems, either vestibular rehabilitation or Cervicovestibular Rehabilitation may be of benefit.
25. In the case of a recurrence of symptoms when progressing through the return-to-learn (RTL) or return-to-sport (RTS) strategies (see below), re-evaluation and referral for rehabilitation may be of benefit to facilitate recovery.

Recovery

26. Generally, SRCs have large adverse effects on cognitive functioning and balance during the first 24-72 hours after injury. For *most* Organizational Participants, these cognitive defects, balance and symptoms improve rapidly during the first two weeks after injury
27. The below tables regarding both RTL and RTS represent a graduated return to learning and return to sport for most Organizational Participants, in particular those that did not experience high severity of initial symptoms after the following the first few days after the injury.

Return to Learn (RTL)

28. To minimise academic and social disruptions during the RTL strategy, Organizational Participants should avoid complete rest and isolation, even for the initial 24 to 48 hours, and instead engage in a period of relative rest. Early return to activities of daily living should be encouraged provided that symptoms are no more than mildly and briefly increased.
29. The 2022 CISG included additional recommendations with respect to environmental, physical, curriculum and testing adjustments to help accommodate participants across serval age groups and demographics. For more information, see here at page 703.
30. Not all Organizational Participants will require an RTL strategy or academic support. If symptom exacerbation occurs during cognitive activity or screen time, difficulties with reading, concentration or memory or other aspects of learning are reported, an RTL strategy, if considered appropriate by a clinician, should be implemented at the time of diagnosis and during the recovery process. A sample RTL 'timeline' can be seen as **Table 1**.
31. It is common for a student's symptoms to worsen slightly with activity. This is acceptable as they progress through steps so long as the symptom exacerbation is:
    - **mild:** Symptoms worsen by only one to two points on a zero-to-10 scale, and
    - **brief:** Symptoms settle back down to pre-activity levels within an hour.

    If the student's symptoms worsen more than this, they should pause and adapt activities as needed.

Step	Activity	Description	Goal of each step
1	Activities of daily living and relative rest (first 24 to 48 hours)	○ Typical activities at home (e.g. preparing meals, social interactions, light walking) that do not result in more than mild and brief worsening of symptoms ○ Minimize screen time	Gradual reintroduction of typical activities
After a maximum of 24 to 48 hours after injury, progress to step 2.			
2	School activities with encouragement to return to school (as tolerated)	○ Homework, reading or other light cognitive activities at school or at home ○ Take breaks and adapt activities if they result in more than mild and brief worsening of symptoms ○ Gradually resume screen time, as tolerated	Increase tolerance to cognitive work and connect socially with peers
If the student can tolerate school activities, progress to step 3.			

3	Part-time or full days at school with accommodations (as needed)	○ Gradually reintroduce schoolwork ○ Build tolerance to the classroom and school environment over time. Part-time school days with access to breaks throughout the day and other accommodations may be required ○ Gradually reduce accommodations related to the concussion and increase workload	Increase academic activities.
If the student can tolerate full days without accommodations for concussion, progress to step 4.			
4	Return to school full-time	○ Return to full days at school and academic activities, without accommodations related to the concussion ○ For return to sport and physical activity, including physical education class, refer to the Return-to-Sport Strategy	Return to full academic activities.
Return to school is complete.			

Table 1 – Return to Learn Strategy

Return to Sport (RTS)

32. SRCs have large adverse effects on cognitive functioning and balance during the first 24-72 hours after injury. For *most* Organizational 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 Organizational Participant's initial symptoms following the first few days after the injury.
33. The athlete should spend a minimum of 24 hours at each step before progressing on to the next. It is common for an athlete's symptoms to worsen slightly with activity. This is acceptable as they progress through steps 1 to 3 of return to sport, so long as symptom exacerbation is:
    - **mild:** symptoms worsen by only one to two points on a zero-to-10 scale, and
    - **brief:** symptoms settle back down to pre-activity levels within an hour.

    If the athlete's symptoms worsen more than this, they should stop the activity and try resuming the next day at the same step.

    Before progressing to step 4 of the sport-specific Return-to-Sport Strategy, athletes must:
    - successfully complete all steps of the Return-to-School Strategy (if applicable), and
    - provide their coach with a Medical Clearance Letter indicating they have been medically cleared to return to activities with risk of falling or contact.

    If the athlete experiences concussion symptoms after medical clearance (i.e., during steps 4 to 6), they should return to step 3 to establish full resolution of symptoms. Medical clearance will be required again before progressing to step 4.

Step	Activity	Activity details	Goal of each step
1	Activities of daily living and relative rest (first 24 to 48 hours)	○ Typical activities at home (e.g. preparing meals, social interactions, light walking) that do not result in more than mild and brief worsening of symptoms ○ Minimize screen time	Gradual reintroduction of typical activities.
After a maximum of 24 to 48 hours after injury, progress to step 2.			
2	2A: Light effort aerobic exercise	○ Start with light aerobic exercise, such as stationary cycling and walking at a slow to medium pace ○ May begin light resistance training that does not result in more than mild and brief worsening of symptoms ○ Exercise up to approximately 55% of maximum heart rate ○ Take breaks and modify activities as needed	Increase heart rate.
	2B: Moderate effort aerobic exercise	○ Gradually increase tolerance and intensity of aerobic activities, such as stationary cycling and walking at a brisk pace ○ Exercise up to approximately 70% of maximum heart rate ○ Take breaks and modify activities as needed	
If the athlete can tolerate moderate aerobic exercise, progress to step 3.			
3	Individual sport-specific activities, without risk of inadvertent head impact	○ Add sport-specific activities (e.g., running, changing direction, individual drills) ○ Perform activities individually and under supervision from a teacher, parent/caregiver or coach ○ Progress to where the athlete is free of concussion-related symptoms, even when exercising	Increase the intensity of aerobic activities and introduce low-risk sport-specific movements
Medical clearance If the athlete has completed return to school (if applicable) and has been medically cleared, progress to step 4.			

4	Non-contact training drills and activities	○ Progress to exercises with no body contact at high intensity, including more challenging drills and activities (e.g., passing drills, multi-athlete training and practices)	Resume usual intensity of exercise, co-ordination and activity-related cognitive skills.
If the athlete can tolerate usual intensity of activities with no return of symptoms, progress to step 5.			
5	Return to all non-competitive activities, full-contact practice and physical education activities	○ Progress to higher-risk activities including typical training activities, full-contact sport practices and physical education class activities ○ Do not participate in competitive gameplay	Return to activities that have a risk of falling or body contact, restore confidence and assess functional skills by coaching staff
If the athlete can tolerate non-competitive, high-risk activities, progress to step 6.			
6	Return to sport	Unrestricted sport and physical activity	
Return to sport is complete.			

Table 2 – Return to Sport Strategy

34. Organizational Participants should be allowed to engage in activities of daily living (including walking) immediately following injury, even during the initial period of 24–48 hours of relative rest.
35. There should be at least 24 hours (or longer) for each step. If symptoms reoccur or worsen, the Organizational Participant should go back to the previous step. If symptoms continue to persist, the Organizational Participant should return to see a physician.
36. Organizational Participants can expect a minimum of 1 week to complete the full rehabilitation strategy, but typical unrestricted RTS can take up to 1-month post-SRC. The time frame for RTS may vary based on individual characteristics, necessitating an individualised approach to clinical management.
37. Resistance training should only be added in the later stages (Stage 3 or Stage 4). Athletes may be moved into the later stages that involve risk of head impact (typically Steps 4–6 and Step 3 if there is any inadvertent risk of head impact with sport-specific activity) following authorisation by a healthcare provider and after full resolution of concussion-related symptoms, abnormalities in cognitive function and clinical findings related to the current concussion, including the absence of symptoms with and after physical exertion.
38. The Organizational Participant's Return-to-Sport strategy should be guided and approved by a physician with regular consultations throughout the process. Specifically, progression through the later RTS strategy (Steps 4–6) should be monitored by a health care professional.
39. The Organizational Participant must provide NLBA/Club/School with a medical clearance form, signed by a physician, following Stage 5 and before proceeding to Stage 6.

40. While the RTL and RTS strategies can occur in parallel, student athletes who are Organizational Participants should complete full RTL before unrestricted RTS.
41. The NLBA is aware that healthcare providers should manage Organizational Participants on an individual basis, accounting for specific factors that may affect their recovery trajectory, such as pre-existing factors (i.e., migraine history, anxiety) or postinjury factors (i.e., aggravation of injury, psychological stress, social factors) that impact recovery. When symptoms are persisting, worsen or are not progressively resolving 2–4 weeks postinjury, a multimodal evaluation and referral for rehabilitation (see Rehabilitation section) is recommended.

Reconsider

42. All Organizational Participants, regardless of competition level, should be managed using the same SRC management principles.
43. 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. It remains a recommendation that children and adolescents should first follow a RTL strategy before they take part in an **unrestricted** RTS strategy despite RTL and RTS strategies occurring in parallel.

Residual Effects

44. Organizational 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*."

Refine

45. The 2022 CISG identified several areas of refinement to strengthen future consensus statements: *Para Sport, Paediatrics, the Athlete's Voice* and *Ethical Considerations, limitations* and *improvements*. The following are relevant for Canada Basketball's application of this policy.
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Risk Reduction and Prevention

46. The NLBA recognizes that knowing an Organizational 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. The NLBA encourages Organizational Participants to make coaches and other stakeholders aware of their individual histories.

Non-Compliance

47. Failure to abide by any of the guidelines and/or protocols contained within this policy may result in disciplinary action in accordance with Canada Basketball's and NLBA's policies for discipline and complaints.

Liability

48. Canada Basketball and the NLBA shall not be liable for any Organizational Participant or other individual's use or interpretation of this Policy. Further, none of Canada Basketball's and NLBA's members, directors, officers, employees, agents, representatives, and other individuals involved in any way in the administration of this Policy shall be liable to any other individual in any way, in relation to any lawful acts or omissions committed in the honest application, administration, and/or enforcement of this Policy.

Review and Approval

This Policy was reviewed and approved by the NLBA Board and passed at the AGM June 2025.