Preamble

- 1. This Policy is 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.
- 2. This Policy is intended to be compliant with Ontario's *Rowan's Law (Concussion Safety), 2018*. If any provision of the policy is in conflict with Rowan's Law, the legislation shall take precedence.
- 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. OWP 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 OWP, including but not limited to, employees, volunteers, 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 who 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.
 - e) "OWP" Ontario Water Polo.



Purpose

- 6. OWP is committed to ensuring the safety of those participating in OWP activities. OWP 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.
- 7. 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.

Registration

- 8. When an individual under the age of 26 years old registers with OWP, the individual <u>must</u> provide written or electronic confirmation that they have reviewed concussion awareness resources within the past 12 months. The Ontario Government has produced age-appropriate concussion resources located here:
 - a) Ages 10 and under
 - b) Ages 11-14
 - c) Ages 15+
- 9. Individuals under the age of 26 years old must also sign the *Concussion Code of Conduct* (**Appendix A**).
- 10. For athletes younger than 18 years old, the athlete's parent or guardian <u>must</u> also provide confirmation that they have also reviewed the concussion resources as well and signed the *Concussion Code of Conduct*.
- 11. Coaches, officials and team trainers must provide confirmation that they have also reviewed the concussion resources and sign the *Concussion Code of Conduct*; but not if they will be interacting exclusively with athletes who are 26 years old or older.

Recognizing Concussions

- 12. If any of the following **red flags** are present, 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 more than once
 - i) Increasingly restless, agitated, or combative
 - j) Getting more and more confused



- 13. 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
- 14. 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
 - I) Feeling slowed down or "in a fog"
- 15. Failure to correctly answer any of these memory questions may suggest a concussion:
 - a) What venue are we at today?
 - b) Where was your last major competition?
 - c) What day is it?
 - d) What event are you participating in?

Removal from Sport Protocol

- 16. 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 by a designated person.
- 17. After removal from participation, the following actions should be taken:
 - a) The designated person who removed the Participant should consider calling 9-1-1;
 - b) OWP must make and keep a record of the removal;
 - c) The designated person must inform the Participant's parent or guardian if the Participant is younger than 18 years old, and the designated person must inform the parent or guardian that the Participant is required to undergo a medical assessment by a physician or nurse practitioner before the Participant will be permitted to return to participation; and
 - d) The designated person will remind the Participant, and the Participant's parent or guardian as applicable, of OWP's Return-to-Sport protocol as described in this Policy.



- 18. Participants who have a Suspected Concussion and who are removed from participation should:
 - a) Be isolated in a dark room or area and stimulus (such as phones, reading, laptops) 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
- 19. 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.

Re-Evaluate

20. 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

- 21. 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 vigourous exertion.
- 22. 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

23. 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

24. 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.



25. 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	Running or agility 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

- 26. An initial period of 24-48 hours of both physical rest and cognitive rest is recommended before beginning the Return to Sport strategy.
- 27. 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.
- 28. Resistance training should only be added in the later stages (Stage 3 or Stage 4).
- 29. If symptoms persist, the Participant should return to see a physician.
- 30. The Participant's Return-to-Sport strategy should be guided and approved by a physician with regular consultations throughout the process.
- 31. The Participant must provide OWP with a medical clearance form, signed by a physician, following Stage 5 and before proceeding to Stage 6.

Reconsider

- 32. The 2017 Concussion in Sport Group (CISG) considered whether certain populations (children, adolescents, and elite athletes) should have SRCs managed differently.
- 33. It was determined that all Participants, regardless of competition level, should be managed using the same SRC management principles.
- 34. 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

35. 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

36. OWP 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. OWP encourages Participants to make coaches and other stakeholders aware of their individual histories.

Non-Compliance

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

Concussion Code of Conduct (Appendix A)

PART A

The following section of the *Concussion Code of Conduct* must be signed by all Participants under the age of 26 years old. For Participants who are younger than 18 years old, a parent/guardian must also sign this section.

I will help prevent concussions by:

- Wearing the proper equipment for my sport and wearing it correctly.
- Developing my skills and strength so that I can participate to the best of my ability.
- Respecting the rules of my sport or activity.
- Demonstrating my commitment to fair play and respect for all (respecting other athletes, coaches, team trainers and officials).

I will care for my health and safety by taking concussions seriously, and I understand that:

- A concussion is a brain injury that can have both short-term and long-term effects.
- A blow to my head, face or neck, or a blow to the body that causes the brain to move around inside the skull may cause a concussion.
- I don't need to lose consciousness to have had a concussion.
- I have a commitment to concussion recognition and reporting, including self-reporting of possible concussion and reporting to a designated person when and individual suspects that another individual may have sustained a concussion. (Meaning: If I think I might have a concussion I should stop participating in further training, practice or competition immediately, and I will tell an adult if I think another athlete has a concussion).
- Continuing to participate in further training, practice or competition with a possible
 concussion increases my risk of more severe, longer lasting symptoms, and increases my risk
 of other injuries.

I will not hide concussion symptoms. I will speak up for myself and others.

- I will not hide my symptoms. I will tell a coach, official, team trainer, parent or another adult I trust if I experience **any** symptoms of concussion.
- If someone else tells me about concussion symptoms, or I see signs they might have a concussion, I will tell a coach, official, team trainer, parent or another adult I trust so they can help.
- I understand that if I have a suspected concussion, I will be removed from sport and that I will not be able to return to training, practice or competition until I undergo a medical assessment by a medical doctor or nurse practitioner and have been medically cleared to return to training, practice or competition.
- I have a commitment to sharing any pertinent information regarding incidents of removal from sport with my school and any other sport organization with which I have registered. (Meaning: If I am diagnosed with a concussion, I understand that letting all of my other coaches and teachers know about my injury will help them support me while I recover).

I will take the time I need to recover, because it is important for my health.

- I understand my commitment to supporting the return-to-sport process and I will follow my sport organization's Return-to-Sport Protocol.
- I understand I will have to be medically cleared by a medical doctor or nurse practitioner



before returning to training, practice or competition.

• I will respect my coaches, team trainers, parents, health-care professionals, and medical doctors and nurse practitioners, regarding my health and safety.

The following section must be included in the Concussion Code of Conduct if OWP has adopted policies regarding (a) zero-tolerance (b) mandatory disqualification for illegal play that is considered high risk for causing concussions and (c) escalating consequences for violation of the Concussion Code of Conduct.

I will help prevent concussions, through my:

- Commitment to zero-tolerance for prohibited play that is considered high risk for causing concussions
- Acknowledgement of mandatory expulsion from competition for violating zero-tolerance for prohibited play that is considered high risk for causing concussions. (Meaning: I will be disqualified/expelled from play if I violate the zero-tolerance policy).
- Acknowledgement of the escalating consequences for those who repeatedly violate the *Concussion Code of Conduct*.

Conduct.					
Name of Participant (print)	Signature of Participant	Date of Birth			
Name of Parent or Guardian (print)	Signature of Parent or Guardian	Date			

By signing here, I acknowledge that I have fully reviewed and commit to this Concussion Code of



PART B

The following section of the *Concussion Code of Conduct* must be signed by all coaches and team trainers who interact with Participants under the age of 26 years old.

I can help prevent concussions through my:

- Efforts to ensure that my athletes wear the proper equipment and wear it correctly.
- Efforts to help my athletes develop their skills and strength so they can participate to the best of their abilities.
- Respect for the rules of my sport or activity and my efforts to ensure that my athletes do too.
- Commitment to fair play and respect for all (respecting other coaches, team trainers, officials and all participants and ensuring my athletes respect others and play fair).

I will care for the health and safety of all participants by taking concussions seriously. I understand that:

- A concussion is a brain injury that can have both short-term and long-term effects.
- A blow to the head, face, or neck, or a blow to the body may cause the brain to move around inside the skull and result in a concussion.
- A person doesn't need to lose consciousness to have had a concussion.
- An athlete with a suspected concussion should stop participating in training, practice or competition immediately.
- I have a commitment to concussion recognition and reporting, including self-reporting of possible concussion and reporting to a designated person when an individual suspects that another individual may have sustained a concussion.
- Continuing to participate in further training, practice or competition with a suspected concussion increases a person's risk of more severe, longer lasting symptoms, and increases their risk of other injuries or even death.

I will create an environment where participants feel safe and comfortable speaking up. I will:

- Encourage athletes not to hide their symptoms, but to tell me, an official, parent or another adult they trust if they experience **any** symptoms of concussion after an impact.
- Lead by example. I will tell a fellow coach, official, team trainer and seek medical attention by a physician or nurse practitioner if I am experiencing any concussion symptoms.
- Understand and respect that any athlete with a suspected concussion must be removed from sport and not permitted to return until they undergo a medical assessment by a physician or nurse practitioner and have been medically cleared to return to training, practice or competition.
- For coaches only: Commit to providing opportunities before and after each training, practice and competition to enable athletes to discuss potential issues related to concussions.

I will support all participants to take the time they need to recover.

- I understand my commitment to supporting the Return-to-Sport process.
- I understand the athletes will have to be cleared by a physician or nurse practitioner before returning to sport.
- I will respect my fellow coaches, team trainers, parents, physicians and nurse practitioners and any decisions made with regards to the health and safety of my athletes.



By signing here, I acknowled; Conduct.	ge that I have fully reviewed and	commit to this Concussion Code of
Name and role (print)	Signature	Date