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Canadian Heritage Patrimoine canadien



Water Polo Canada (WPC) has developed the Concussion Education Toolkit as a turn-key guide that can be used by our stakeholders as they prepare for each water polo season. Safe sport is a crucial element in Canadian sport and WPC considers the areas of concussion prevention and management as important subsections that must be addressed.

This toolkit includes information adapted with permission by Parachute. Parachute is Canada's national charity dedicated to injury prevention. Parachute collaborates with sport organizations, schools, government and health professionals to build a consistent, evidence-based approach to concussion across Canada's amateur sport system.

It also includes information found within WPC's Concussion Protocol, which was developed by the Institut National du sport du Québec (INS Québec) in collaboration with WPC. By focusing on science, innovation and technology, INS Québec represents the "ingenuity behind the performance" by offering cutting-edge solutions driven by a team of experts and partners to push the limits of each of our athletes. INS Québec and its network support more than 3,300 athletes, including more than 550 high-level athletes—mainly members of Canadian teams—and nearly 2,000 next-generation athletes and some 900 coaches. INS Québec provides scientific, medical and professional services. As a member of the Canadian Olympic and Paralympic Sport Institute Network, INS Québec is active across Québec thanks to its network of 8 regional multi-sport training centres, 18 single-sport training centres and its Olympic Park Complex, which is home to 10 high-level training groups. INS Québec receives support from the Ministère de l'Éducation, Sport Canada, Own the Podium, the Canadian Olympic Committee, the Canadian Olympic Foundation, the Canadian Paralympic Committee and the Coaching Association of Canada, in addition to private partners, such as Sports Experts, CISCO, Bell, B2dix and Mondo.

The content of this toolkit will be updated as additional information becomes available.











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 a player thinks and can cause a variety of symptoms. Continuing to participate in an activity when you may have a concussion increases the risk of more severe, longer-lasting concussion symptoms, and increases the risk of other injury. Anyone with a suspected concussion should be seen by a medical doctor or nurse practitioner as soon as possible.

WHEN SHOULD I SUSPECT A CONCUSSION?

A concussion should be suspected in anyone who sustains a significant impact to the head, face, neck, or body and reports any symptoms or demonstrates any visual signs of a concussion. A concussion should also be suspected if a player reports any concussion symptoms to one of their peers, parents/caregivers, teachers, trainers or coaches or if anyone witnesses a player exhibiting any of the visual signs of concussion. Some players will develop symptoms immediately, while others will develop delayed symptoms, beginning 24 to 48 hours after the injury.

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 hit in the head with a ball or an elbow during a game or practice, slipping on the pool deck, falling hard on the floor in gym class, or experiencing whiplash in a car crash.



WHAT ARE THE VISUAL SIGNS OF A CONCUSSION?

- Lying motionless in the water or on pool deck
- Slow to react in the water or move back into position after a direct or indirect hit to the head
- Not being able to swim in a straight line
- Disorientation or confusion or inability to respond appropriately to questions
- Blank or vacant stare
- Balance and gait difficulties, poor-co-ordination, stumbling, slow laboured movements.
- Facial injury after head trauma
- Clutching head



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
- Dizziness
- Nausea and vomiting
- Blurred or fuzzy vision
- Sensitivity to light or sound
- Balance problems
- Feeling tired or having no energy
- Not thinking clearly
- Feeling slowed down
- Easily upset or angered
- Sadness
- Nervousness or anxiety
- Feeling more emotional
- Sleeping more or sleeping less
- Having a hard time falling asleep
- Difficulty working on a computer
- Difficulty reading
- Difficulty learning new information







WHAT SHOULD I DO IF I SUSPECT A CONCUSSION?

If any player is suspected of sustaining a concussion during participation in a water polo game, practice or dryland training they should be immediately removed from the activity. Any player who is suspected of having sustained a concussion must not be allowed to return to the same game, practice or training.

Continuing to play with a possible concussion puts the player at risk of further injury, including Second Impact Syndrome (SIS). SIS is a swelling of the brain that can occur when a player sustains a second head injury before a previous head injury has healed. Although rare, SIS can lead to permanent injury and death.

It is important that ALL players with a suspected concussion undergo medical assessment by a medical doctor or nurse practitioner, as soon as possible. It is also important that ALL players with a suspected concussion receive written medical clearance from a medical doctor or nurse practitioner before returning to sport.

WHEN CAN THE PLAYER RETURN TO SCHOOL, WORK AND SPORTS?

It is important that all players diagnosed with a concussion follow a step-wise return to school, work and sports-related activities, guided by the following Return-to-School/Work and Return-to-Sport Strategies. It is important that youth and adults return to full-time school activities before progressing to stage 5 and 6 of the Return-to-Sport Strategy.





RETURN-TO-SCHOOL/WORK STRATEGY

STAGE	AIM	ACTIVITY	GOAL OF EACH STEP
1	Daily activities at home that do not give the player 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 or work activities at home.	Homework, reading or other cognitive activities outside of the classroom/workplace.	Increase tolerance to cognitive work
3	Return to school/work 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/work full-time.	Gradually progress.	Return to full academic activities and catch up on missed school work.

Water Polo-Specific Return-to-Sport Strategy

A summary of the Water Polo Return-to-Sport Strategy is located on the page that follows.

*Note: Water Polo Canada's Concussion Education Toolkit includes two detailed Return-to-Sport Strategies (one specific to field players and one specific to goalies), as well as a visual representation of <u>WPC's Concussion Pathway</u>.

An initial period of 24-48 hours of rest is recommended before starting the Water Polo-Specific Return-to-Sport Strategy. If the player experiences new symptoms or worsening symptoms at any stage, they should go back to the previous stage before trying again.





WATER POLO-SPECIFIC RETURN-TO-SPORT STRATEGY (Field Player & Goalie)

STAG	E AIM	ACTIVITY	GOAL OF EACH STEP
1	Symptom- limiting activity	Daily activities that do not provoke symptoms	Gradual reintroduction of work/school activities
2	Light aerobic activity	NO RESISTANCE TRAINING Examples for Field Players: • Stationary bike of inclined treadmill for 5 min • Floor stretching routine • Mobility work Examples for Goalies: • Stationary bike of inclined treadmill for 5 min • Tennis ball throws against neutral coloured wall • Floor stretching routine • Mobility work	Increase heart rate
3	Sport-specific exercise	NO HEAD IMPACT ACTIVITIES Examples for Field Players: Passes while facing a partner eggbeater with alternate side sliding shooting at the net without opponents and no goalie. Examples for Goalies: Reaction drills with side to side or vertical jumping Blocking lobbed throws in free space (no net). 5 min passing with 1 partner at increasing distance	Add movement



STAGE	AIM	ACTIVITY	GOAL OF EACH STEP
4	Non-contact training drills	 MAY START PROGRESSIVE RESISTANCE TRAINING. AVOID JUMPING. Examples for Field Players: 5 times 10 sec breath hold with head underwater 10 x 2 vs. 1 + goalie, receive pass and throw on net Olympic lifting or exercises where head is below the level of the hips Examples for Goalies: 5 times 10 sec breath hold with head underwater 10 x blocking direct shots Olympic lifting or exercises where head is below the level of the hips 	Exercise, coordination and increased thinking.
5	Full contact practice	FOLLOWING MEDICAL CLEARANCE Examples for Field Players: • 5 min passing with 1 partner • 3 vs. 3 simulations in small surface. Progress to 6 vs. 6 full size playing area • Return to normal resistance loads, olympic lifting and valsalva technique. Examples for Goalies: • 3 x 1/2 distance eggbeater and jump every 5 seconds, finish freestyle • Practice game situations with 1/2 field • Return to normal resistance loads, olympic lifting and valsalva technique Continue to monitor heart rate throughout this period. Ensure return to adequate heart rate between longer sets or after very intense drills.	Restore confidence and assess functional skills by coaching staff.
6	Return to sport	Normal game play	





HOW LONG DOES IT TAKE FOR THE PLAYER TO RECOVER?

Concussion healing time varies from player to player. While an exact timeline is not possible to provide, most players will make a complete recovery within one to two weeks, while most youth players will recover within one to four weeks. In some cases, it can take weeks or months to heal. If a person has had a concussion before, it may take them longer to heal the next time. Approximately 15 to 30 per cent of patients will experience persistent symptoms (symptoms that last longer than typical) that may require additional medical assessment and management. Remember to always take the time you need to recover, as recommended by your medical doctor or nurse practitioner. Recovering from concussion is a process that takes patience. Going back to activities before you are ready is likely to make your symptoms worse, your recovery may take longer, and returning to active play before full recovery also puts you at higher risk of sustaining another concussion.

HOW CAN I HELP PREVENT CONCUSSIONS AND THEIR CONSEQUENCES?

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

To learn more about concussions please visit: <u>WPC's website</u> or www.parachute.ca/concussion.





Concussion Codes of Conduct (Optional)

Please note that some provinces and/or territories have their own Codes of Conduct with specific requirements. The Water Polo Canada Concussion Education Toolkit does not replace any requirements under the law in those regions. The Concussion Education Toolkit was designed to provide you and other coaches, players and parents across Canada with concussion resources that are Water Polo-specific and meet your unique role to support player development while providing a safe participation environment. If your province or territory has an existing Code of Conduct, this will carry the legal role for players in those areas. Please be sure to always consult with your sport governing body for more information.

CONCUSSION CODE OF CONDUCT

Water Polo Players

I will do my best to protect myself and others from concussion.

- I will wear the proper water polo equipment and wear it correctly.
- I will develop my skill and body strength so that I can play to the best of my abilities.
- I will respect the rules of water polo.
- I will respect myself and my opponents.
- I will not fight or attempt to injure anyone on purpose.
- I will not hit or push another player from behind or hit to the head.
- I will not hit, push, kick or use any type of force towards another player if they are in a vulnerable position.
- I will play safe, smart and fair.

I will take concussions and concussion education seriously.

- I understand a concussion is a serious brain injury that can have both short- and long-term effects.
- I understand that I do not need to lose consciousness to have had a concussion.
- I understand that any blow to the head, face, or neck, or a blow to the body which causes a sudden jarring of the head may cause a concussion.
- I understand if I think I might have a concussion I should stop playing or practising immediately.
- I understand continuing to play or practice with a suspected concussion increases my risk of more severe, longer lasting concussion symptoms, as well as increases my risk of other injury.
- I will follow and respect the concussion protocol and policies of my water polo league.

I will not play through the pain. I will speak up for myself and others.

- I will not hide my symptoms. I will tell my coach, trainer, safety person, parent, caregiver, or other person I trust if I think I might have a concussion and/or experience any signs and symptoms of concussion following an impact.
- If another player tells me about concussion symptoms, or I notice they might have a concussion, I will tell a coach, official, team trainer, safety person, parent or another person I trust so they can help.
- I understand that letting all my coaches and teachers know about any diagnosed concussions will help them support my recovery.
- I understand if I show any signs or symptoms of concussion, I will be removed from practice or gameplay and cannot return until I am assessed by a doctor.

I will not return to water polo or other physical activity until I am ready and fully recovered.

- I understand I will not be able to return to practice or gameplay following an impact where I experience any signs and symptoms of concussion.
- I understand I will have to be cleared by a doctor, preferably one with experience in concussion management, prior to returning to water polo and other physical activity.
- I understand I will have to follow the Water Polo Return-to-Sport strategy when returning to Water Polo and other physical activity.
- I will respect my coaches, trainers, team safety personnel, parents and medical professionals and any decisions made with regards to my health and safety.

Signature of Player	-		
Signature of Parent/Guardian (if under the age of majority)	_	Date	

CONCUSSION CODE OF CONDUCT

Parents and Caregivers

I will help my child prevent concussion.

- I will ensure my child wears the proper water polo equipment and wears it correctly.
- I will help my child develop their skills and strength so they can play to the best of their ability.
- I will respect the rules of water polo and ensure my child does as well.
- I will respect my child's coaches, trainers, safety personnel, officials and all those involved with the league and team.
- I will ensure my child respects other players and plays fair and safe.

I will be aware of signs and symptoms of concussion in my child and take concussions seriously.

- I understand a concussion is a serious brain injury that can have both short- and long-term effects.
- I understand that any blow to the head, face, or neck, or a blow to the body that causes a sudden jarring of the head may cause a concussion.
- I understand that my child doesn't need to lose consciousness to have had a concussion.
- If I suspect my child may have a concussion, I will ensure they stop participating in practice or gameplay immediately.
- I understand continuing to participate in water polo and other physical activity with a suspected concussion increases my child's risk of more severe, longer-lasting symptoms, and increases their risk of other serious injuries.
- I will be aware of and follow the concussion protocol and policies of my child's water polo league.

I will ensure my child feels comfortable speaking up if they experience any signs or symptoms of a concussion.

- I will encourage my child not to play or practice through the pain or hide any concussion symptoms.
- I will ensure my child knows to tell me, their coach, their trainer, safety person, an official, or other adult they trust if they experience any concussion symptoms after an impact.
- I will ensure my child tells their coaches and teachers about any diagnosed concussions so they can support my child's recovery.

I will support my child's recovery and ensure they do not return to Water Polo or other physical activity until they are fully recovered.

- I understand and respect that if my child shows any signs or symptoms of concussion, they will be removed from practice or gameplay and cannot return until they are assessed by a doctor and are medically cleared to return.
- I understand my child has to follow the Water Polo Return-to-Sport strategy and I will help them do so.
- I understand my child will have to be cleared by a doctor before returning to water polo or other physical activity after a concussion.
- I will respect my child's coaches, trainers and medical professionals and any decisions made with regards to the health an safety of my child.

Signature of Parent/Guardian	_		
Name of Player	_	 Date	
Traine of Frager			



TIPS TO PREVENT CONCUSSIONS AND OTHER INJURIES IN WATER POLO GUIDE

TIPS TO ASSIST PLAYERS AND TEAMMATES IN PREVENTING CONCUSSION & OTHER INJURIES IN WATER POLO

Follow these tips to help prevent concussion and other injuries and keep yourself and others safe





stay alert.



vulnerable position, such as with their back facing you.



ball responsibly.



Communicate with your teammates. If you think a teammate may have a concussion, report symptoms to your coach, team trainer, or safety personnel.



Remove yourself from the water if you experience any concussion symptoms after a hard hit by the ball or contact with another player. Report symptoms to your coach, team trainer or safety personnel.



TIPS TO ASSIST PARENTS AND CAREGIVERS IN HELPING THEIR CHILD PREVENT CONCUSSIONS & OTHER INJURIES IN WATER POLO

Follow these tips to help your child prevent concussion and other injuries and keep themselves and others safe while practicing or playing Water Polo.



Help your child develop strong skills and strength.



Ensure you understand proper techniques and the rules of water polo, and go over these with your child.



Teach your child the importance of good sportsmanship and respecting the safety of both themselves and everyone in the water.



Understand and respect the concussion protocols and policies of Water Polo Canada, my Province and the National Championship League (NCL).



Ensure your child knows to never hit, strike, kick or head-butt a player from behind.



Ensure your child knows to never hit, strike, kick or head-butt an opponent's head.



If you suspect your child may have a concussion, ensure they stop participating in practice or gameplay immediately.



Remind your child to always avoid violent contact with a player if they are in a vulnerable position, such as with their back facing them.



Encourage your child to always be aware, stay alert and control the ball responsibly.



Ensure your child has the appropriate Water Polo equipment and wears it correctly.



Talk to your child about the importance of removing themselves from the water if they experience any concussion symptoms after a hard hit by the ball or contact with another player. Ensure they know to report symptoms to you, their coach, team trainer or safety personnel.



Attend the Pre-Season
Concussion Education Team
Meeting and have a conversation
with your child afterwards to
ensure that they understand
everything that was
discussed.

Having a Concussion Action Plan will ensure that all those involved with your water polo team know what to do and what their role is when a concussion is suspected in a practice or in a game. The Concussion Action Plan will serve as a step-by-step guide to help your team respond to concussions properly. To make sure concussions are managed safely and effectively, implement an action plan that coaches, trainers, players and their parents/caregivers are all involved in.

Steps to create a Concussion Action Plan:

1. **Identify safety personnel** who can assist with managing the health of the team and are knowledgeable about concussions, know the action plan and know what to do when a concussion is suspected. This might include a team trainer, athletic therapist, doctor, designated first aider or another person responsible for ensuring concussion protocol is followed.

*Note: In Ontario, Rowan's Law protocol requires that there is a designated individual responsible for ensuring that concussion protocol is followed.

- 2. **Provide players and families with concussion resources** so everyone knows what to look for to keep players safe.
- 3. **Always have a <u>Concussion Recognition Tool 5 (CRT5)</u>** at practices and games so that you have a list of concussion signs and symptoms available, and information on the first steps to take when a concussion is suspected.
- 4. **Use the sample practice and game action plan** templates at the end of this document to create a Concussion Action Plan for your water polo team.



CONCUSSION ACTION PLAN GUIDE

If you suspect a concussion has occurred:

- 1. Coach or trainer removes the player from practice or training session.
- 2. Coach or trainer ensures the player is not left alone. Monitor signs and symptoms using the <u>Concussion Recognition Tool 5 (CRT5)</u> and do not administer any medication. The player must not return to practice or training that day.
- 3. Coach informs the player's parent/caregiver or emergency contact about the suspected concussion and provides them with all relevant concussion resources and links.
- 4. Parent/caregiver or emergency contact ensures the player is evaluated by a medical doctor or nurse practitioner as soon as possible.
- 5. Coaches, trainers and parents/caregiver share the responsibility to communicate with the player to ensure that if they are diagnosed with a concussion, they are following Water Polo Canada's, the Province's and the National Championship League (NCL)'s concussion protocol and policies and a medically-supervised Water Polo Return-to-Sport strategy. Players may only return to full practice and gameplay when they have been cleared by their doctor.



If you notice any "red flag" symptoms:

"Red flag" symptoms can be signs of a more serious injury. Get medical help immediately if you notice that a player has any of the following symptoms:

- Neck pain or tenderness
- Repeated vomiting
- Growing confusion
- Seizures or convulsions
- Weakness, tingling or burning in their arms or legs
- Increasingly restless, agitated or combative
- Double vision
- Severe or increasing headache
- Deteriorating conscious state or loss of consciousness
- If there is loss of consciousness, initiate the Emergency Action Plan and call an ambulance.

If the player is unconscious or you suspect a neck injury, continue to monitor airway, breathing and circulation (ABCs). Do not attempt to remove any equipment. In this situation, monitoring the athlete's ABCs can be completed by a lifeguard.

SAMPLE CONCUSSION ACTION PLAN FOR PRACTICES OR TRAINING SESSIONS

Team Name:	Trainer:		
Coach:	Safety Persor	nnel:	
Start your water polo season by se Fill in the below table to create you Sessions.	etting your team up for a safe, he	ealthy and successfu	
Be aware of "red flag" symptoms, present, initiate the Emergency A suspected, do not attempt to move for their breathing and/or you are	ction Plan. If a player is unconstreethe player or remove equipme	cious or a neck injury ent unless there is a	<i>i</i> is
If you suspect a concussion has oc	curred:		
ACTION	PERSONNEL RESPONSIBLE (NAME, TITLE)	EMERGENCY CONTACT NUMBER	STATUS
Coach removes the player from the practice or training session.			
Coach ensures the player is not left alone. Monitor signs and symptoms using the <u>CRT5</u> and DO NOT administer any medication. The player must not return to the game or other physical activity that day.			
Coach informs the player's parent/caregiver or emergency contact about the suspected concussion and provides them with all relevant concussion WPC and Parachute resources and links.			

A C T I O N	PERSONNEL RESPONSIBLE (NAME, TITLE)	E M E R G E N C Y C O N T A C T N U M B E R	STATUS
Parent/caregiver ensures the player is evaluated by a medical doctor as soon as possible.			
Coaches, trainers and parents share the responsibility to communicate with the player to ensure that if they are diagnosed with a concussion, they are following Water Polo Canada's, the Province's and the National Championship League (NCL)'s concussion protocol and policies and a medically supervised Water Polo Return-to-Sport strategy. Players may only return to full practice and game play when they have been cleared by their doctor.			

SAMPLE CONCUSSION ACTION PLAN FOR GAMES

Team Name:	Trainer:		
Coach:	Safety Person	nnel:	
Start your water polo season by s Fill in the below table to create yo Sessions.	= -	_	
Be aware of "red flag" symptoms present, initiate the Emergency a suspected, do not attempt to mo for their breathing and/or you ar	Action Plan. If a player is uncons ve the player or remove equipm e appropriately trained to do so.	cious or a neck injur ent unless there is a	y is
If you suspect a concussion has o	PERSONNEL RESPONSIBLE (NAME, TITLE)	E M E R G E N C Y C O N T A C T N U M B E R	STATUS
Official stops the game when an injury is suspected.			
Coach removes the player from the game.			
Coach ensures the player is not left alone. Monitor signs and symptoms using the <u>CRT5</u> and DO NOT administer any medication. The player must not return to the game or other physical activity that day.			
Coach informs the player's parent/caregiver or emergency contact about the suspected concussion and			

provides them with all relevant

Parachute resources and links.

concussion WPC and

A C T I O N	PERSONNEL RESPONSIBLE (NAME, TITLE)	E M E R G E N C Y C O N T A C T N U M B E R	STATUS
Parent/caregiver, chaperone, team manager or coach ensures the player is evaluated by a medical doctor as soon as possible.			
Coaches, trainers and parents share the responsibility to communicate with the player to ensure that if they are diagnosed with a concussion, they are following Water Polo Canada's, the Province's and the National Championship League (NCL)'s concussion protocol and policies and a medically supervised Water Polo Return-to-Sport strategy. Players may only return to full practice and game play when they have been cleared by their doctor.			



RETURN-TO-SPORT STRATEGY

This water polo specific Return-to-Sport Strategy was developed as part of Water Polo Canada's (WPC) Concussion Protocol by the Institut National du sport du Québec (INS Québec) in collaboration with WPC. It ensures that correct activities are completed at the appropriate stages of an athlete's return-to-sport journey and is an important tool for stakeholders.

Return-to-Sport Summary:



1 Rest (24 - 48 hours)

An initial period of 24-48 hours of rest is recommended before starting the water polo specific Return-to-Sport strategy.



IF THE PLAYER EXPERIENCES NEW OR **WORSENING SYMPTOMS AT ANY** STAGE, THEY SHOULD GO BACK TO THE PREVIOUS STAGE.

Follow the Return-to-School/ Work & Return-to-Sport Strategies

> Review both strategies to understand the correct stage sequencing for a safe, stepwise return to school, work and sports.

Return to Full Contact Sport Activities

Once the player has concluded the stages of the Return-to-School/Work strategy and is completing the stages of the Return-to-Sport strategy, a medical doctor or nurse practitioner can assess whether they can return to full contact practice and gameplay activities. If the player is ready to return, a Medical Clearance Letter will be issued. Players cannot return to full contact sport activities until medically cleared by a doctor or nurse practitioner.

The final decision to medically clear an athlete to return to full game activity must 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).



RETURN-TO-SPORT STRATEGY

Prior to returning to full contact practice and game play, 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.

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.



RETURN-TO-SPORT STRATEGY - FIELD PLAYER



SYMPTOM-LIMITING ACTIVITIES

ACTIVITIES: Daily activities that do not provoke symptoms

GOAL OF THE STAGE: Gradual reintroduction of work/school activities



LIGHT AEROBIC ACTIVITY*

ACTIVITIES

Warm -up:

Stationary bike or inclined treadmill for 5 min @ 50% HR max.

Exercises:

- Stationary bike for 20 min @ 70% HR max in interval sets.
- Floor stretching routine: 1) gluteals; 2) latissimus; 3) quadriceps; 4) hamstrings; 5) adductors; 6) butterfly stretch; 7) happy baby pose; 8) pigeon stetch, etc.
- Foam roller on key areas: hips, back and shoulders
- Mobility work for hip flexion, rotations and extension

NO RESISTANCE TRAINING

GOAL OF THE STAGE: Increase heart rate

Typically, these activities are performed at a residence and not during club practices. If a stationary bike or treadmill is not available, a brisk walk in a quiet outdoor environment while wearing sunglasses is recommended.

STAGE 3

SPORT-SPECIFIC EXERCISE

ACTIVITIES

Warm -up:

- Dryland with the team
- 200m freestyle without turns at the end of the pool
- 3 min eggbeater
- 5 min passes while facing partner

Cardiovascular:

- Interval swim sets 3 x 5 x 25m progressive intensity up to 70% alt 25m 50% (750m total)
- 20 sec rest between sets

Technical Work:

- 5 min passing with 2 partners 3 x 50m eggbeater with blocking motions.
- 3 x 50m eggbeater with alternate side sliding
- 10 x shooting at the net without opponents and no goalie

Cool Down:

• 100m free @ 50% intensity, foam roller and stretching

NO HEAD IMPACT ACTIVITIES

GOAL OF THE STAGE: Add movement



RETURN-TO-SPORT STRATEGY - FIELD PLAYER



NON-CONTACT TRAINING DRILLS

ACTIVITIES

Warm -up:

- Dryland with the team (include skipping rope x 3 min)
- 4 x diving into the pool with 50m freestyle
- 50m eggbeater
- 50m breaststroke
- 25m water polo backstroke + 25m eggbeater and vertical jumps
- 5 x 10 sec breath hold with head underwater (alt 10 sec rest)

Cardiovascular:

- 5 x catch up 25m head up: 60-70-80-90-100% (30 sec active rest throwing ball between reps)
- 5 x 25m sprints head up (30 sec active rest throwing ball between reps)
- 2 x 25m breaststroke
- 5 x 1/2 pool sprints, spin and receive long pass + simulate post shot (return water polo backstroke easy)

Technical Work:

- 3 min passing with 3 other players
- 5 x 10 sec mirror drills with an opponent (alternate 20 sec passive rest/set)
- 10 x 5m sprint with the ball, fake and throw on net with goalie and 1 defender
- 10 x 2 vs. 1 + goalie, receive pass and throw on net
- 3 x 10 blocking shots moderate intensity

Cool Down:

• 200m easy + foam roller and stretching

Strength Training:

- Keep resistance below 80% 1RM and avoid jumping, Olympic lifting or exercises where head is below the level of the hips (i.e. back extensions on a bench)
- Progressively increase external resistance for multi-joint exercises.

MAY START PROGRESSIVE RESISTANCE TRAINING

GOAL OF THE STAGE: Exercise, coordination and increased thinking



RETURN-TO-SPORT STRATEGY - FIELD PLAYER



FULL CONTACT PRACTICE

FOLLOWING MEDICAL CLEARANCE

ACTIVITIES

THE ATHLETE SHOULD NOT START THIS STAGE UNTIL THEY COMPLETE ALL OF THE THE RETURN-TO-SCHOOL|WORK STRATEGY STAGES!

Warm -up:

- Dryland with the team.
- 100m free with turns at the ends of the pool
- 5 x (10m eggbeater + 6 turbo + free to finish pool)
- Alternate 5 x (10m eggbeater + 4 consecutive jumps + free to finish pool)
- 5 min passing with 1 partner

Cardiovascular:

- Catch up 25m head up: 60-70-80-90-100% (30 sec rest)
- 5 x all-out sprints with head up
- 2 x 25m breaststroke
- $5 \times 1/2$ pool sprints, receive pass and finish 1/2 pool easy with the ball
- Rest1min
- 5 x 1/2 pool sprint, spin and receive long pass + simulate post shot (return water polo backstroke easy)
- Active rest, passing with leaning as when avoiding a block

Technical Work:

- 2 x 5 reps 1 vs. 1 battle to steal ball 5m away
- Passive rest 2 min
- 2 x 5 reps defensive block
- Passive rest 2 min
- 3 vs. 3 simulations in small surface
- Progress to 6 vs. 6 full size playing area

Cool Down:

• 200m easy free, foam rolling and stretching

Strength Training:

• Return to normal resistance loads, Olympic lifting and valsalva technique.

GOAL OF THE STAGE: Restore confidence and assess functional skills by coaching staff

STAGE 6

RETURN-TO-SPORT

ACTIVITIES: Normal game play



RETURN-TO-SPORT STRATEGY - GOALIE



SYMPTOM-LIMITING ACTIVITIES

ACTIVITIES: Daily activities that do not provoke symptoms

GOAL OF THE STAGE: Gradual reintroduction of work/school activities

STAGE 2

LIGHT AEROBIC ACTIVITY*

ACTIVITIES

Warm -up:

• Stationary bike or inclined treadmill for 5 minutes @ 50% HR max.

Exercises:

- Stationary bike for 20 minutes @ 70 HR max in interval sets.
- Tennis ball throws against neutral colour wall:
 - 5 right hand throws with right hand catch
 - o 5 left hand throws with left hand catch
 - 10 throws with alternate throwing and catching hands
- Floor stretching routine: 1) gluteals; 2) latissimus; 3) quadriceps; 4) hamstrings; 5) adductors; 6) butterfly stretch; 7) happy baby pose; 8) pigeon stetch, etc.
- Foam roller on key areas: hips, back and shoulders
- Mobility work for hip flexion, rotations, extension

NO RESISTANCE TRAINING.

GOAL OF THE STAGE: Increase heart rate

Typically, these activities are performed at a residence and not during club practices. If a stationary bike or treadmill is not available, a brisk walk in a quiet outdoor environment while wearing sunglasses is recommended.

STAGE 3

SPORT-SPECIFIC EXERCISE

ACTIVITIES

Warm -up:

- Dryland with the team
- 200m freestyle without turns at the end of the pool
- 3 minutes eggbeater
- 5 minutes passes while facing partner

Cardiovascular:

- Interval swim sets 3 x 5 x 25m progressive intensity up to 70% alt 25m 50% (750m total)
- 20 sec rest between sets
- $\widehat{\mathbb{Q}}$ Athlete can also be challenged on land with passing and reaction drills with partner.



RETURN-TO-SPORT STRATEGY - GOALIE

Technical Work (In the pool):

- Circuit training: 3 x (5 sec eggbeater hands up, 6 x lateral lunging alt sides, 10 sec crazy hands, 10 sec flutter kick against the wall)
- 5 min passing with 1 partner at increasing distance.
- 10-20 sec of reaction drills with side to side of vertical jumping
- 10 x blocking lobbed throws in free space (no net)

Technical Work (Out of the water, tennis ball throws against a wall):

- 5 right hand throws with right hand catch
- 5 left hand throws with left hand catch
- 10 throws with alternate throwing and catching hands

Cool Down:

• 100m free @ 50% intensity, foam roller and stretching

NO HEAD IMPACT ACTIVITIES

GOAL OF THE STAGE: Add movement



NON-CONTACT TRAINING DRILLS

ACTIVITIES

Warm -up:

- Dryland with the team (include skipping rope x 3 min)
- 4 x diving into the pool with 50m freestyle
- 50m eggbeater
- 50m breaststroke
- 25m water polo backstroke + 25m eggbeater and vertical jumps
- 5 x 10 sec hold with head underwater (alt 10 sec rest)

Cardiovascular:

- Lunge and jump to the same side 4 x 6
- Lunge and jump to the opposite side 4 x 6
- Jump and lunge to the same side 4 x 6
- Jump and lunge to the opposite side 4 x 6
- Goalie position T-test 3 x 5 x 5 with 30 sec rest between reps and 3 min between sets.

Technical Work:

- 5 min passing with 1 partner at increasing distances
- 10 x blocking lobbed shots vs. single attacker
- 10 x top corner blocking (2 on 1 play or single attacker vs. goalie)
- 10 x blocking direct shots from various play positions, left to right then right to left (2 on 1 play or single attacker vs. goalie)
- Reaction drills following ball movement 5 x 10 reps left/right/up



This is also an opportune period to practice decision making with match video situations and others, volume dependent on visual and cognitive findings at Step 1.

Cool Down:

• 200m easy + foam roller and stretching



RETURN-TO-SPORT STRATEGY - GOALIE

Strength Training:

- Keep resistance below 80% 1RM and avoid jumping, Olympic lifting or exercises where head is below the level of the hips (i.e. back extensions on a bench)
- Progressively increase external resistance for multi-joint exercises.

MAY START PROGRESSIVE RESISTANCE TRAINING.

GOAL OF THE STAGE: Exercise, coordination and increased thinking



FULL CONTACT PRACTICE

FOLLOWING MEDICAL CLEARANCE

ACTIVITIES

Warm -up:

• Dryland with the team.



THE ATHLETE SHOULD NOT START THIS STAGE UNTIL THEY COMPLETE ALL OF THE THE RETURN-TO-SCHOOL|WORK STRATEGY STAGES!

Continue to monitor heart rate throughout

this period. Ensure return to adequate heart rate between longer sets or after very intense

- 100m freestyle with regular turns at each end of the pool.
- 3x1/2 distance eggbeater sideways, switch at the end of the lap
- 3x1/2 distance eggbeater and slide every 5 sec., finish freestyle
- 3x1/2 distance eggbeater and jump every 5 sec., finish freestyle
- 5 min passing with partner face to face

Cardiovascular:

- Lunge and jump to the same side 4x6
- Lunge and jump to the opposite side 4x6
- Jump and lunge to the same side 4x6
- Jump and lunge to the opposite side 4x6
- Circuit training: 3x(5 sec eggbeater hands up, 6x lateral lunging alt sides, 10 sec crazy hands, 10 sec flutter kick against the wall).

drills.

Technical Work:

- 5 min passing with 1 partner at increasing distances
- Practice game situations with 1/2 field of play (positions 1-2-3-6).
- 2x10 blocking lobbed shots random sides
- 2x10 blocking straight top corner shots random sides
- 2x10 blocking skip shots random sides
- 15x blocking 2 on 1 situation, full net to cover.

Cool Down:

• 200m easy free, foam rolling and stretching

Strength Training:

• Return to normal resistance loads, Olympic lifting and valsalva technique.

GOAL OF THE STAGE: Restore confidence and assess functional skills by coaching staff

STAGE 6

RETURN-TO-SPORT

ACTIVITIES: Normal game play

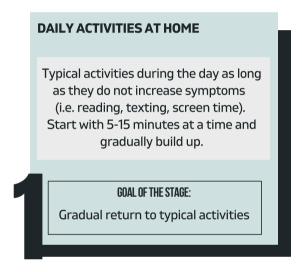
32



RETURN-TO-SCHOOL/ WORK STRATEGY

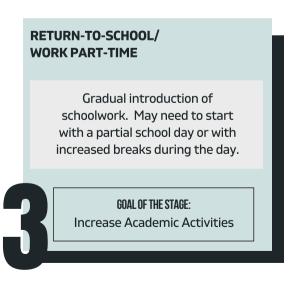
The following is an outline of the Return-to-School Strategy that should be used to help student-athletes, parents/caregivers and teachers to collaborate in allowing the athlete to make a gradual return to school activities. Depending on the severity and type of the symptoms present student-athletes 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.

REST (24 - 48 HOURS)



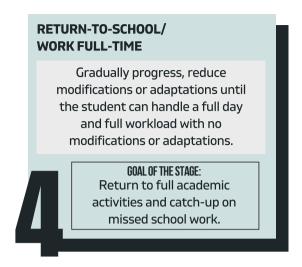
Homework, reading or other cognitive activities outside of the classroom.

GOAL OF THE STAGE:
Increase tolerance to cognitive work





RETURN-TO-SCHOOL/WORK STRATEGY





*Note: These steps can also be used as a Return-to-Work Strategy** for those water polo athletes that train or compete in the Active for Life stages (i.e. Major League Water Polo, Masters water polo, adult Provincial League or club adult water polo program) or for coaches, officials and trainers.

**A more tailored and detailed Return-to-Work strategy is available for stakeholders on Parachute's website in both of Canada's official languages (English and French).

A visual representation of the WPC Concussion Pathway can be seen in Appendix A.



CONCUSSION FAQ GUIDE

This guide provides a list of Frequently Asked Questions (FAQs) on a variety of topics that have not been explained in Water Polo Canada's (WPC) other concussion education resources or important information that WPC would like to emphasize for our members. These questions have been subdivided into smaller sections for ease. It is recommended that this guide be reviewed by coaches prior to the Pre-Season Concussion Education Team Meeting and referred to when necessary.



WHO IS RESPONSIBLE FOR RECOGNIZING A SUSPECTED CONCUSSION?

Although the formal diagnosis of concussion should be made following a medical assessment, all sport stakeholders including athletes, parents, teachers, coaches, teachers, officials, and licensed healthcare professionals are responsible for the recognition and reporting of athletes who may demonstrate visual signs of a head injury or who report concussion-related symptoms. This is particularly important because many sport and recreation venues will not have access to on-site licensed healthcare professionals.

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 suspected concussion or reports ANY symptoms of a suspected concussion as detailed in the <u>Concussion Recognition Tool 5 (CRT5)</u>, a copy of which can be found in Appendix B.
- If a player reports ANY concussion symptoms to one of their peers, parents, teachers, or coaches of if anyone witnesses an athlete exhibiting any of the visual signs of concussion.

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 by the CRT5, a more severe head or spine injury should be suspected, and Emergency Medical Assessment should be pursued. The Emergency Medical Assessment is located within <u>WPC's Concussion Protocol</u>.

WATER POLO

CONCUSSION FAQ GUIDE



CAN A COACH DIAGNOSE A CONCUSSION?

No, a coach is not qualified to diagnose a concussion. In addition to nurse practitioners, medical doctors that are qualified to evaluate patients with a suspected concussion include:

- · Pediatricians;
- · Family medicine physicians;
- Sport medicine physicians;
- Emergency department physicians;
- Internal medicine physicians;
- Rehabilitation physicians (physiatrists);
- Neurologists; and
- Neurosurgeons



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.

*Note: In Québec, nurse practitioners cannot make a clinical diagnosis. Diagnosis must be made by a medical doctor.



HOW ARE CONCUSSIONS TREATED?



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 gradual return to school and sport activities. Athletes diagnosed with a concussion are to be managed according to their Return-to-School/Work and Sport-Specific-Return-to-Sport Strategy. 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.





WHAT SHOULD I DO IF I SUSPECT A CONCUSSION?

AS A PLAYER

If you as a player received a blow to the head, face, neck or elsewhere on your body or are experiencing any of the concussion symptoms you should stop practicing or playing and immediately notify your coach, trainer, teacher or parent/caregiver.

AS A PARENT/CAREGIVER

If you suspect a concussion in your child or another athlete notify a coach, teacher or their parent/caregiver immediately.

If your child is demonstrating visual signs of a concussion or experiencing concussion symptoms, suspect a concussion and have your child assessed by a medical doctor or nurse practitioner.

AS A COACH

If you suspect an athlete may have suffered a concussion during a game or practice, remove the athlete from play and consult your <u>Concussion Action Plan</u> for next steps.

AS A TEAMMATE

If you see one of your teammates receive a blow to the head, face, neck or elsewhere on their body, if they are acting peculiarly, showing visual signs of a concussion as outlined in the WPC Pre-Season Concussion Education Fact Sheet, or if they inform you that they are experiencing one of the symptoms commonly associated with a concussion you should inform your coach or trainer immediately.

AS AN OFFICIAL

If an athlete receives a blow to the head, face, neck or elsewhere on their body and is exhibiting any of the visual signs associated with concussions during a game, a referee can stop the game for a period of 3 minutes. During this time the coaches are able to access the injured athlete. This rule is located under WP 26.3 of the FINA water polo rules 2019-2020 which states that, "If accident, injury or illness, other than bleeding, occurs, a referee may at the referee's discretion suspend the game for not more than three minutes, in which case the referee shall instruct the timekeeper as to when the stoppage period is to commence." (p.28)

In addition, the referee cannot allow an injured athlete to re-enter the field of play as explained under WP 26.5 of the FINA water polo rules 2019-2020 which states that, "Except in the circumstances of WP 26.2 (bleeding), the player shall not be allowed to take further part in the game if a substitute has entered." (p.28)

WATER POLO

CONCUSSION FAQ GUIDE



WHEN SHOULD THE ATHLETE SEE A DOCTOR?

If an athlete loses consciousness during a practice or game or exhibits any of the other "Red Flag" symptoms they should be transported to a hospital immediately.



- Neck pain or tenderness
- Repeated vomiting
- Growing confusion
- Seizures or convulsions
- · Weakness, tingling or burning in their arms or legs
- · Increasingly restless, agitated or combative
- Double vision
- Severe or increasing headache
- · Deteriorating conscious state or loss of
- consciousness
- If there is loss of consciousness, initiate the Emergency Action Plan and call an ambulance.

*Note: If the player is unconscious or you suspect a neck injury, continue to monitor airway, breathing and circulation. Do not attempt to remove any equipment.

If the athlete does not exhibit any "Red Flag" symptoms during the practice or game, their parents/caregivers should be notified and the athlete should be closely monitored until their parents/caregivers arrive. If the athlete experiences constant or worsening concussion symptoms, they should make an appointment with their medical doctor or nurse practitioner.



WHAT TYPE OF INFORMATION SHOULD BE PROVIDED TO THE DOCTOR?

WPC has created a <u>Personal Concussion Record for Players</u> sheet for our registrants to use during their Return-to-School/Work and Return-to-Sport journey. The information included on this sheet will be useful in providing an overview of the athlete's concussion and concussion history, which doctors may find useful. However, it is not a legal medical document and as such should be used solely as a tool for athletes and parents/caregivers to use and refer to throughout the <u>Return-to-School/Work</u> and <u>Return-to-Sport</u> period and in the future. Using the Personal Concussion Record for Players is highly recommended and a simple method to ensure that the same information is provided to the athlete's doctor, coaches, teachers and other support staff.





HOW LONG DOES IT TAKE FOR A CONCUSSION TO HEAL?

Most athletes 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 1-4 weeks of injury. However, approximately 15-30% of individuals will experience symptoms that persist beyond this time frame.

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, rehabilitation medicine as well as optometry and kinesiology.

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. Depending on the clinical presentation of the individual, this treatment plan may involve a variety of health care professionals with areas of expertise that address the specific needs of the athlete based on the assessment findings.

*Note: For those registrants interested in locating a medical professional who possesses experience within the area of concussions, you may find the following website to be helpful.





WHAT HAPPENS WHEN AN ATHLETE RETURNS TOO QUICKLY TO SPORT, SCHOOL OR WORK?

Ilt is important that athletes, coaches and officials take the necessary time to heal when they have been diagnosed with a concussion. Concussions affect each individual differently and there can be severe consequences to those individuals who return too quickly to sport, school or work when they have a concussion. Going back to activities before you are ready is likely to make your symptoms worse, your recovery may take longer, and returning to active play before full recovery also puts you at higher risk of sustaining another concussion.



There is also the possibility, although minimal, that an athlete who returns too quickly to sport can be diagnosed with Second Impact Syndrome (SIS). SIS is a swelling of the brain that can occur when a player sustains a second head injury before a previous head injury has healed. Although rare, SIS can lead to permanent injury and death.



CAN A CONCUSSION BE CLASSIFIED AS SEVERE OR MILD?



No, concussions cannot be classified as severe or mild. There is no recognized system for classifying concussions. The full extent of the consequences of a concussion are difficult to predict at the outset and may change over time. Each concussion should be taken seriously and anyone who sustains a concussion should carefully follow step-wise return-to-school/work and return-to-sport strategies to support a safe and healthy recovery.





HOW CAN TEAMMATES HELP THEIR TEAMMATE WHO IS SUFFERING FROM A CONCUSSION FEEL INCLUDED?



Players who are suffering from a concussion may find it difficult, at times, to feel included on their sport team. It is important that the player's teammates are aware of this and endeavor to increase the player's inclusion in team activities while respecting the restrictions that accompany their stage of concussion recovery. One method of increasing feelings of inclusion would be for the player's teammates to spend time with or communicate with the injured player. However, large gatherings may cause the symptoms of the player suffering from a concussion to worsen due to the amount of noise and the high level of concentration required. Therefore, individual support from teammates is preferred.

Teammates may also support the player by demonstrating empathy and understanding that, even though you can't see it, a concussion is a brain injury, which takes adequate time to recover safely. Often, players may want to return to sport before they are ready or fully recovered. Teammates should encourage the concussed player to take the time they need to recover and be there to support them through their recovery process.

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SHOULD AN ATHLETE TAKE MEDICATION TO HELP WITH THEIR SYMPTOMS IF THEY MAY HAVE A SUSPECTED CONCUSSION (I.E. ACETAMINOPHEN FOR A HEADACHE)?

Players removed from play due to a suspected concussion should not ingest or be given any type of medication, unless it is essential (e.g. insulin for diabetes). Their doctor will provide further guidance on medication use during recovery.









WHY ARE PRE-SEASON CONCUSSION EDUCATION MEETINGS IMPORTANT?

Despite recent increased attention focusing on concussion, there is a continued need to improve concussion education and awareness. Optimizing the prevention and management of concussion depends highly on annual education of all stakeholders (athletes, parents, coaches, officials, teachers, trainers and integrated support staff) on current evidence-informed approaches that can prevent concussion and more serious forms of head injury and help identify and manage an athlete with a suspected concussion. The Pre-Season Concussion Education Meetings are extremely important in ensuring that water polo clubs across Canada are aligned in the WPC safe sport pillar of concussion prevention and management.

2

IF AN ATHLETE WEARS A MOUTHGUARD AND/OR A GOALIE PRACTICE HELMET, CAN THEY STILL RECEIVE A CONCUSSION?

Mouthguards and helmets do not prevent concussions. Currently, there is limited research into mechanisms of concussion in water polo, and as such, there is no proof to support the notion that specific equipment worn by water polo players can prevent a concussion. The evidence on whether mouthguards can reduce the risk of concussion is inconclusive. Wearing proper equipment is important for other reasons: mouthguards can help protect the teeth from direct impact, and goalie practice helmets may help protect the skull or prevent other head injuries. But, a player can still receive a concussion while wearing a mouthguard and/or goalie practice helmet, as a very rapid movement of the head with or without physical contact is often sufficient to cause a concussion.





WHAT SHOULD STAKEHOLDERS, PARTICULARLY COACHES, ATHLETES AND PARENTS/CAREGIVERS, DO DURING THE SEASON TO HELP PREVENT AND MANAGE CONCUSSIONS?

PLAYERS

- Use the <u>tips to prevent concussions and other injuries sheet</u> to ensure that you and your teammates are practicing awareness and safety in all practices and games.
- If you or your teammate are experiencing concussion symptoms, notify a coach, teacher or parent/caregiver immediately.
- Ensure that prior to returning to full contact practice and game, you provide a signed Medical Clearance Letter to your coach.
- Follow the proper stage sequencing of the <u>Return-to-School/Work</u> and <u>Return-to-Sport strategies</u> and identify whether you are experiencing any new or worsening symptoms throughout or following each stage.

PARENTS/GUARDIANS

- If you suspect a concussion in your child or another player notify a coach, teacher or their parent/caregiver immediately.
- Ensure that your child is following the proper stage sequencing of the Return-to-School/Work and Return-to-Sport strategies.
- Be aware of your child's team's/club's Concussion Action Plan

COACHES

- Use the tips to prevent concussions and other injuries sheet to help plan safe practices for your team. Ensure that you are aware of your Concussion Action Plan during practices and games and if there are any differences based on pool facilities.
- If you suspect an athlete may have suffered a concussion during a game or practice, remove the athlete from play and consult your Concussion Action Plan for next steps.
- Create an emergency contact sheet with parent contact information for each athlete on your team in the event you need to contact them.
- Ensure that you have the <u>CRT5</u> in an easily accessible location for when you need to reference the information.
- Ensure that any athlete diagnosed with a concussion is following the proper Return-to-Sport sequencing.
- Ensure that prior to an athlete returning to full contact practice and games that you receive a signed Medical Clearance Letter from the athlete.



1

WHAT IS WPC DOING TO PREVENT AND MANAGE CONCUSSIONS?

Safe sport is a crucial element within Canadian sport and WPC recognizes the importance of providing our members with the proper education tools, resources, policies and protocols to address this area. Concussion prevention and management is one of WPC's safe sport pillars and as such, WPC has established the Concussion Expert Advisory Committee to provide support and guidance to WPC within this area. The Institut National du sport du Québec (INS Québec) in collaboration with WPC has developed WPC's Concussion Protocol which is based on the latest evidence, developed with concussion experts and supported by Sport Canada. WPC is committed to promoting concussion awareness, prevention and management. The organization has and will continue to work diligently within the safe sport category of concussions moving forward. This Concussion Education Toolkit is the first step to ensuring a safer, more conscientious sport environment for our stakeholders.





IS THE NCL IMPLEMENTING ANY SPECIALIZED CONCUSSION PROCEDURES?

WPC's focus for the 2020-2021 season is to provide our members with crucial concussion education resources as a means of developing their concussion awareness, prevention and management techniques. Education is a vital element in concussion prevention and management. In order for the National Championship League (NCL) to be successful, it is imperative that our members understand their responsibilities in relation to the area of concussions within safe sport. In addition, WPC requires all NCL coaches to complete the NCCP Making Head Way in Sport e-module prior to coaching any NCL games.









HOW IS ROWAN'S LAW BEING ADDRESSED FOR ONTARIO RESIDENTS?

In Ontario, Rowan's Law is a mandatory legislation that sport organizations must adhere to and it addresses the prevention and management of concussions. As a result of this legislation, Ontario Water Polo (OWP) requires that each water polo registrant who resides in Ontario and is under the age of 26 to sign their Concussion Code of Conduct and provide annual verification that the Government of Ontario concussion awareness resources have been reviewed. In addition, coaches, officials and trainers of teams, which include athletes who are under the age of 26, must also complete these tasks.

For more information about Rowan's Law, please visit the following website: Ontario.ca/concussions





It is important to keep a record of specific information pertaining to an athlete's suspected or diagnosed concussion. This information provides an overall picture of what the athlete is experiencing/has experienced and the steps taken when managing and treating their concussion symptoms. The following document is not a legal medical document and as such should be used solely as a tool for athletes and parents to use and refer to throughout the Return-to-School/Work and Return-to-Sport period and in the future. Using the Personal Concussion Record for Athletes is highly recommended and a simple method to ensure that the same information is provided to the athlete's doctor, coaches, teachers and other support staff.

PERSONAL CONCUSSION RECORD FOR PLAYERS

ATHLETE INFORMATION First and Last Name: Age: _____ CONCUSSION INFORMATION Date of Incident: Time of Incident: Location of Incident: **Description of Incident:** Did the athlete exhibit any Red Flags? If yes, which one(s)?

List of Signs	Initial	After 24-48	Before seeing the		Retur chool		(Re	turn-	to-Sp	ort	
and Symptoms	Incident	Hours of Rest	doctor	S1	S2	S3	S4	S1	S2	S3	S4	S5	S6
Headaches or head pressure													
Dizziness													
Nausea and vomiting													
Blurred or fuzzy vision													
Sensitivity to light													
Sensitivity to sound													
Balance problems													
Feeling tired or having no energy													
Not thinking clearly													
Feeling slowed down													
Easily upset or angered													
Sadness													
Nervousness or anxiety													
Feeling more emotional													
Sleeping more or sleeping less													
Having a hard time falling asleep													
Difficulty working on a computer													
Difficulty reading													
Difficulty learning new information													
Lying motionless on the playing surface													
Slow to get up after a direct or indirect hit to the head													
Disorientation or confusion or inability to respond appropriately to questions													
Blank or vacant stare													
Balance and gait difficulties, poor co-ordination, stumbling, slow laboured movements													
Facial injury after head trauma													
Clutching head													

Has the athlete suffered from a prior concussion	on? If yes, how many?
Was neuropsychological testing performed? If	yes, where and by whom?
Was a CT or MRI performed? If yes, where?	
What is the name and address of the physician	who was most involved?
Return-to-School/Work Strategy:	
Start Date:	
End Date:	
Return-to-Sport Strategy:	
Start Date:	
End Date:	
Date that the coach received the signed Med	lical Clearance Letter:
Comments/Notes:	



- 1. Institut National du sport du Québec & Water Polo Canada. (n.d.). *Water Polo Canada Concussion Protocol*. Water Polo Canada. https://waterpolo.ca/admin/docs/WP-Canadian%20Harmonized%20Concussion%20Protocol-EN-FINAL-1.pdf
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APPENDIX A - WPC CONCUSSION PATHWAY

#1 - PRE-SEASON EDUCATION

WHO

Athletes, Parents, Coaches, Officials, Trainers, Teachers, Healthcare Professionals

HOW 🗹

Pre-Season Education Sheet

IMPACT TO THE HEAD, FACE, NECK OR BODY

HEAD INJURY SUSPECTED

#2 - HEAD INJURY RECOGNITION

WHO # Athletes, Parents, Coaches, Officials, Trainers, Teachers, Healthcare Professionals

HOW 🗹

Z

Pre-Season Education Sheet

#3A - EMERGENCY MEDICAL ASSESSMENT

WHO ##

Emergency Medical Personnel

#4 - MEDICAL ASSESSMENT

WHO 28 Medical Doctor OR Nurse

Practitioner

HOW 🗹

Medical Assessment Letter

IS A MORE SERIOUS HEAD INJURY SUSPECTED?

REMOVE FROM PLAY

IS A LICENSED HEALTHCARE PROFESSIONAL PRESENT?

IS A CONCUSSION SUSPECTED?

NO

#3B - SIDELINE ASSESSMENT

WHO Athletic Therapist, Physiotherapist OR Medical Doctor

HOW SCAT5 OR Child SCAT5

WAS A CONCUSSION DIAGNOSED?



#5 - CONCUSSION MANAGEMENT

WHO

Medical Doctor, Nurse Practitioner, and Team Athletic Therapist OR Physiotherapist

HOW

Return-to-School Strategy and Sport-Specific Return-to-Sport Strategy

DOES THE ATHLETE HAVE PERSISTENT SYMPTOMS**?

**Persistent symptoms: Lasting > 4 weeks in children & youth OR > 2 weeks in adults





#7 - RETURN TO SPORT MEDICAL CLEARANCE

WHO Medical Doctor OR Nurse Practitioner

HOW Medical Clearance Letter

#6 - MULTIDISCIPLINARY CONCUSSION CARE

WHO

 \square

9

Multidisciplinary Medical Team, Medical Doctor with Clinical Training and Experience in Concussion AND Licensed Healthcare professionals *Note: The WPC Concussion
Pathway provides a complete
overview of the concussion
prevention, recognition and
management process that is
used by WPC. Follow the steps
outlined in this graphic to help
guide your decision making
process when an athlete has a
suspected concussion.



APPENDIX B - CONCUSSION RECOGNITION TOOL

BJSM Online First, published on April 26, 2017 as 10.1136/bjsports-2017-097508CRT5

To download a clean version of the SCAT tools please visit the journal online (http://dx.doi.org/10.1136/bjsports-2017-097508CRT5)

- CALL AN AMBULANCE (INATHLETES OLDER THAN 12 YEARS)	To help identify concussion in children, adolescents and adults . Pressure in head . Sensitivity to light . More tritable concentrating	s, the basic principles (other than required for always arising, stronger, response, content of the than required for always arising, stronger, response (other than required for always arising, stronger, as appear). Indeed, on the required trained to act any other equipment unless trained to do so safely, any other equipment unless trained to do so safely. IGNS SSIBLE concussion should proceed to the following steps: IGNS SSIBLE concussion include: Bisonieriation or Bisonieriation or Bisonieriation or Bisonieriation or an inability motor incoordination,
there is concern after an injury including whether ANY of the following stepse about designation of beserved or complaints are expected than the payer should be satisfued to complaints are expected than the payer should be satisfued to complaints a responded than the payer should be satisfued by the satisfued by the propriated for undernass. Severe or increasing the propriated for undernass or tringling. Weakness or tringling. Seizure or convulsion. Word trink alcohol. Do not attempt to more the player of the following steps: alread to a spinal any or treatment or configuration of possible concussion should proceed to the following steps: and organisations. Any revision and any reproduction in a digital form requires approval by the CRTS may be related in any way, rebranded or sold for command or panical graph or treatment or configuration or consistent and treatment o		
	in the Concussion Recognition Tool Is not designed to diagnose concussion. In the Concussion Recognition Tool Is safely with a manufacture of the safely with diamediately course professional is wealiable, Deteriorating On Deteriorating On Professional Is wealiable, Vomitting Increasingly restless, agitated or combative support) unless trained to so do. Do not attempt to move the player of the requipment unless support) unless trained to so do. The conception of the following steps: ouid proceed to the following steps:	
		IGNS
Failure to answer any of the sequence of these questions finddlifed we at lodary* appropriately for each we at lodary* appropriately for each which half is it now?* suggest a concussion: "Which half is it now?* suggest a concussion: "Which half is it now?* This same?* Athletes with suspected concussion should: Not be left alone initially (at least for the first 1-2 hours). Not drink alcohol. Not be sent home by themselves. They need to be with a respon. Not drive a motor vehicle until cleared to do so by a healthcare.	Balance problems Sensitivity Sadness to noise vomiting to noise Nervous or anxious Dizziness . "Don't feel right" Neck Pain Dizziness . "Don't feel right" Neck Pain . "Don't feel right" Neck Pain . "Don't feel right" Neck Pain . "What tee anxious findfile and we at today?" "What tee these questions (modified we at today?" "Which half is it now?" "Tody your suggest a concussion: "Who scored last in this game?" "The last game?" Athletes with suspected concussion should: Not drink alcohol. Not use recreational / prescription drugs. Not drink a motor vehicle until cleared to do so by a healthcare profession.	on of possible concussion should proceed to the following steps:
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	Balance problems Sensitivity Sadness to noise Nausea or Fatigue or anxious or vomiting low energy Neck Pain Drowsiness "Don't feel right" Neck Pain	LL AN AMBULANCE ported then the player should be safely and immeditately profed then the player should be safely and immeditately inclined the should be safely and immeditately with fin locensed feaththcare professional is available, needed assessment: Severe or increasing Detentorating Conscious state Seizure or convulsion Vomiting Organization Conscious state Seizure or convulsion Nomiting Seizure or convulsion Seizure or connections Seizure or consciousness Seizure or combative
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