North York Academy



Concussion Toolkit for Coaches and Parents

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Rowan Stringer's Story

Rowan's Law was named for Rowan Stringer, a high school rugby player from Ottawa, who died in the spring of 2013 from a condition known as second impact syndrome (swelling of the area caused by a subsequent injury that occurred before a previous injury healed). Rowan is believed to have experienced three concussion over six days while playing rugby. She had a concussion but didn't know her brain needed time to heal. Neither did her parents, teachers or coaches.

What is a "concussion"?

Concussion is an injury to the brain resulting in a disturbance of a brain function involving thinking and behaviour. Symptoms of concussion typically appear immediately but may evolve within the first 24-48 hours.

What causes concussion?

- Direct blow to the head
- An impact to the body causing rapid movement of the head.

Additional Links

- 1. Ontario's Concussion Awareness Resources
- 2. Canada Soccer Concussion Policy
- 3. PLAY SAFE; HIT, STOP, SIT!

For Coaches and Trainers

How do I recognize that an athlete might have a concussion? (Br J Sports Med)

Step 1: Signs and Complaints

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

Step 2: Recognizing Visual Clues

Lying motionless on the playing surface	Blank or vacant look
Disorientation or confusion, or an inability to respond appropriately to questions	Balance, gait difficulties, motor incoordination, stumbling, slow laboured movements
Slow to get up after a direct or indirect hit to the head	Facial injury after head trauma

Step 3: Recognizing Symptoms

Headache	Dizziness
"Pressure in head"	Blurred vision
Balance problems	Feeling like "in a fog"
Nausea or vomiting	Feeling slowed down
Drowsiness	Difficulty remembering
"Don't feel right"	Difficulty concentrating
Neck Pain	Nervous or anxious
Sensitivity to light	Sadness
Sensitivity to noise	More emotional
Fatigue or low energy	More Irritable

Step 4: Memory Assessment

Failure to answer any of these questions (modified appropriately for each sport) correctly may suggest a concussion:

- 1. "What venue are we at today?"
- 2. "Which half is it now?"
- 3. "Who scored last in this game?"
- 4. "What team did you play last week/game?"
- 5. "Did your team win the last game?"

Based on the signs and symptoms, I suspect that a player is suffering from concussion, what should I do now?

- 1. A player should be safely and immediately removed from play/game/activity.
- 2. If no licensed healthcare professional is available, call an ambulance for urgent medical assessment.
- 3. A player should not return to activity until assessed medically, even if the symptoms are resolved.

- 4. You will need to ask parents/guardians of an athlete to provide a note from a doctor. Only a licenced healthcare professional with expertise in the evaluation and management of head injury and concussions may review a player with suspected concussion.
- 5. Once a player is cleared by a doctor, you will need to follow a Return to Play Protocol. (Please find at the end of the page.)

A player was removed from sport but has not reported any concussion symptoms or visual clues, what should I do?

- 1. If a player was removed from sport but has not reported any concussion symptoms or visual clues, they can be returned to sport.
- 2. Any such player should be monitored for delayed symptoms, which may appear over the next 24-48 hours.
- 3. If there is any doubt whether a player has sustained a concussion, they should be removed from sport and assessed by a medical doctor or nurse practitioner.

For Parents and Players

How can I protect my child from getting concussed?

- 1. You need to make sure that your child is wearing the proper equipment for their sport and wearing it correctly.
- 2. You need to make sure that your child is respecting the rules of their sport activity.
- 3. You need to review the club's Concussion Code of Conduct while registering for a soccer program.
- 4. You need to educate your child about importance of fair play and respect for all.
- 5. You need to educate you child about concussion symptoms and ways of recognizing it.
- 6. You need to educate your child not to hide their symptoms.

Based on the signs and symptoms, I suspect that my child is suffering from concussion, what should I do now?

- 1. Your child should be safely and immediately removed from any activities.
- 2. Your child should not return to activity until assessed medically, even if the symptoms are resolved.
- 3. Only a licenced healthcare professional with expertise in the evaluation and management of head injury and concussions may review a player with suspected concussion.
- 4. Your child should not be left alone in the first 24 hours.
- 5. Once safely removed from play the player must not be returned to activity that day.
- 6. Once your child is cleared by a doctor, they will need to follow a Return to Play Protocol guided by their coaches/trainers. (Please see below.)

Return to Play Protocol (Canada Soccer)

- Start Stage 1 ONLY if free of concussive symptoms, off medications for concussive symptoms, back to work and/or school, and cleared by a qualified healthcare professional
- Stages 1-4 take a minimum of 24 hours in adults, 48 hours in those aged 18 and under.

	EXERCISE ALLOWED	% MAX HEART RATE	DURATION	OBJECTIVE
REST AND RECOVER	• None	No training	Until symptoms clear	Recovery

	 "Rest the body, Rest the brain" 			Symptom free
STAGE 1 LIGHT EXERCISE	 Walking, light jogging, swimming, stationary cycling or equivalent No football, resistance training, weight lifting, jumping or hard running 	< 70%	< 15 min	Increase heart rate
STAGE 2 SOCCER- SPECIFIC EXERCISE	 Simple movement activities, i.e. running drills Limit body and head movement NO head impact activities NO heading 	< 80%	< 45 min	Add movement
STAGE 3 NON-CONTACT TRAINING	 Progression to more complex training activities with increased intensity, coordination and attention e.g. passing, change of direction, shooting, small-sided game May start resistance training NO head impact activities including NO heading Goalkeeping activities should avoid diving and any risk of the head being hit by a ball 	< 90%	< 60 min	Exercise, coordination and skills/tactics
STAGE 4 FULL CONTACT PRACTICE	Normal training activities, i.e. tackling, heading diving saves			Restore confidence and assess functional skills by coaching staff
STAGE 5 GAME PLAY	 Player rehabilitated 			Return to game play