

### **CONCUSSION POLICY**

PLAYERS' HEALTH AND SAFETY FIRST

CANADA SOCCER SPORTS MEDICINE COMMITTEE

### NOTE TO PROVINCIAL, TERRITORIAL AND LOCAL SOCCER ORGANIZATIONS

As part of a pre-season concussion education strategy, we recommended:

- Our players and parents/guardians should review as a minimum, the Summary section of this document, OR both the Respond and Recognize sections of this document (recommended) as part of their soccer registration process.
- All participants in our sport should be encouraged to familiarize themselves with the entirety of our Concussion Guidelines.

Baseline (pre-season) testing of youth (<18 years) and adult recreational athletes using any tool or combination of tools is not required for post-injury care of those who sustain a suspected or diagnosed concussion and is not recommended.

For the communication between physicians and soccer coaches, team officials and clubs we recommend using: Soccer Canada's Concussion Assessment Report, available @canadasoccer.com.

Generic concussion reporting letters are also available through Parachute Canada:

http://www.parachutecanada.org/downloads/injurytopics/Medical-Assessment-Letter Parachute.pdf & http://www.parachutecanada.org/downloads/injurytopics/Medical-Clearance-Letter Parachute.pdf

### SUMMARY

A concussion is a brain injury.

All concussions should be regarded as potentially serious.

Most concussions recover completely with correct management.

Incorrect management of a concussion can lead to further injury.

Concussions should be managed according to current guidelines.

Anyone with suspected concussion following an injury must be immediately removed from playing or training and receive a prompt assessment by a medical doctor or nurse practitioner.

Concussions are managed by licensed health care professionals working within their scope of practice and expertise.

Concussions are managed by a limited period of rest followed by avoiding physical and brain activities that make concussive symptoms worse, and once concussion related symptoms have resolved, a step-wise return to school, work and sports-related activities.

Return to education or work must take priority over return to playing soccer.

Concussion symptoms must have completely resolved and documented medical clearance completed by a medical doctor or nurse practitioner must be received before resuming full contact practice or game play.

The recurrence of concussion symptoms subsequent to the return to full contact practice or game play requires removal from training or playing and reassessment.

### CANADA SOCCER CONCUSSION POLICY

### THE FINE PRINT

This policy is intended for those managing concussion in soccer at all levels. Professional and National level players typically have access to an enhanced level of medical care, which means that their concussion and their return to play can be managed in a more closely monitored way.

The Policy is based on current evidence and examples of best practice taken from soccer organizations around the world and other sports, including the Football Association, the Scottish FA, World Rugby, and the Canadian Concussion Collaborative. They are consistent with The Canadian Guideline on Concussion in Sport, (Toronto: Parachute, 2017) and the current Consensus Statement on Concussion in Sport issued by the Fifth International Conference on Concussion in Sport, Berlin 2017. The Policy has been reviewed and is approved by Canada Soccer Sports Medicine Committee.

While this policy aims to reflect 'best practice', it must be recognized that there is a current lack of evidence with respect to their effectiveness in preventing long-term harm. Canada Soccer Sports Medicine Committee will continue to monitor research and consensus in the area of concussion and update its policies accordingly.

This version was adopted by Canada Soccer in 2018.

### **ADDITIONAL RESOURCES**

### WEBSITES

Sport Information Resource Centre (SIRC):

http://sirc.ca/resources/concussion

Coaching Association of Canada: Making Head Way Concussion eLearning Series: https://www.coach.ca/concussion-awareness-s16361

Parachute:

www.parachutecanada.org/concussion

Concussion Awareness Training Tool:

www.cattonline.com

Ontario Ministry of Health Concussion Resources:

http://www.health.gov.on.ca/en/public/programs/concussions/

### **VIDEOS**

Dr. Mike Evans Health Lab - Concussions:

https://www.reframehealthlab.com/concussions/

### **RESPOND -** WE ALL NEED TO PLAY A PART IN THE RECOGNITION AND MANAGEMENT OF CONCUSSION

As Canadians, we have a heightened awareness of concussions, related to increased media coverage of this brain injury with its range of outcomes, incidents involving high profile athletes with concussion, and increasing understanding of the consequences of repetitive brain trauma, primarily within professional sports.

### WHAT IS A "CONCUSSION"?

Concussion is an injury to the brain resulting in a disturbance of brain function involving thinking and behavior.

### WHAT CAUSES CONCUSSION?

Concussion can be caused by a direct blow to the head or an impact to the body causing rapid movement of the head.

### **ONSET OF SYMPTOMS**

Symptoms of concussion typically appear immediately but may evolve within the first 24-48 hours.

### WHO IS AT RISK?

All of our sport's participants (players, but also team staff and officials).

Some soccer participants are at increased risk of concussion:

- Children and adolescents (18 years and under) are more susceptible to brain injury, take longer to recover, and are susceptible to rare dangerous brain complications, which may include death.
- Female soccer players have higher rates of concussion.
- Participants with previous concussion are at increased risk of further concussions - which may take longer to recover.

### WHAT ARE THE DANGERS OF BRAIN INJURY?

Failure to recognize and report concussive symptoms or returning to activity with ongoing concussion symptoms set the stage for:

- Cumulative concussive injury
- 2. Second Impact Syndrome'

Second impact syndrome is a rare occurrence. An athlete sustains a brain injury and while still experiencing symptoms (not fully recovered), sustains a second brain injury, which is associated with brain swelling and permanent brain injury or death. Brain swelling may also occur without previous trauma.

Recurrent brain injury is currently implicated in the development of Chronic Traumatic Encephalopathy

Chronic Traumatic Encephalopathy (CTE) is a progressive degenerative brain disease seen in people with a history of brain trauma. For athletes, the brain trauma has been repetitive. Originally described in deceased boxers, it now has been recognized in many sports. Symptoms include difficulty thinking, explosive and aggressive behavior, mood disorder (depression), and movement disorder (parkinsonism).

### **RECOGNIZE -** LEARN THE SIGNS AND SYMPTOMS OF A CONCUSSION SO YOU UNDERSTAND WHEN A SOCCER PLAYER MIGHT HAVE A SUSPECTED CONCUSSION.

Everyone involved in the game (including side-line staff, coaches, officials, players, parents and guardians of children and adolescents) should be aware of the signs, symptoms and dangers of concussion. If any of the following signs or symptoms are present following an injury the player should be suspected of having concussion and immediately removed from play or training.

"If in doubt, sit them out."

"It is better to miss one game than the whole season."

### VISIBLE CLUES OF CONCUSSION - WHAT YOU MAY SEE:

Any one or more of the following visual clues can indicate a concussion:

- Dazed, blank or vacant look
- Lying motionless on ground / slow to get up
- ▶ Unsteady on feet / balance problems / falling over / poor coordination
- Loss of consciousness or responsiveness
- ▶ Confused or not aware of play or events
- Grabbing, clutching, or shaking of the head
- ▶ Seizure
- More emotional or irritable than normal for that person
- Injury event that could have caused a concussion

### SYMPTOMS OF CONCUSSION - WHAT YOU MAY BE TOLD BY AN INJURED PLAYER:

The presence of any one or more of the following symptoms may suggest a concussion:

- ▶ Headache or "Pressure in head"
- Dizziness or balance problems
- Mental clouding, confusion, or feeling slowed down
- ▶ Trouble seeing
- Nausea or vomiting
- ▶ Fatique
- Drowsiness or feeling like "in a fog" or difficulty concentrating
- ▶ Sensitivity to light or noise
- Difficulty with reading, learning or work
- ▶ Sleep problems: getting asleep, too much or too little
- ▶ Emotional / anger / sad / anxious

The Concussion Recognition Tool 5 is valuable for all first responders in recognizing suspected concussion and responding to more severe brain injury or potential neck injury.

# **CONCUSSION RECOGNITION TOOL 5®**

To help identify concussion in children, adolescents and adults





### RECOGNISE & REMOVE

Head impacts can be associated with serious and potentially fatal brain injuries. The Concussion Recognition Tool 5 (CRTS) is to be used for the identification of suspected concussion. It is not designed to diagnose concussion.

# STEP 1: RED FLAGS — CALL AN AMBULANCE

f there is concern after an injury including whether ANY of the following signs are bbssvered or complaints are reported then the player should be safely and immediately emoved from playgames activity. If no licensed healthcare professional is available, Deteriorating conscious state Severe or increasing headache call an ambulance for urgent medical assessment: Neck pain or tenderness

Remember:	•	In all cases, the basic principles of first aid (danger, response, airway, breathing, circulation)	Do not attempt to move the (other than required for air support) unless trained to
		should be tollowed.	Do not remove a helmet or
	•	Assessment for a spinal	any other equipment unles
		cord injury is critical.	trained to do so safely.

f there are no Red Flags, identification of possible concussion should proceed to the following steps:

## STEP 2: OBSERVABLE SIGNS

Visual clues that suggest possible concussion include:

Disorientation or

Lying motionless on

confusion, or an inability to respond appropriately Blank or vacant look to questions the playing surface Slow to get up after a direct or indirect hit to the head

Balance, gait difficulties, motor incoordination, laboured movements stumbling, slow

Facial injury after

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### STEP 3: SYMPTOMS

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

# STEP 4: MEMORY ASSESSMENT

(IN ATHLETES OLDER THAN 12 YEARS)

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# Athletes with suspected concussion should:

Increasingly restless, agitated or combative

Loss of consciousness

Weakness or tingling/ burning in arms or legs

· Seizure or convulsion

Vomiting

- Not be left alone initially (at least for the first 1-2 hours).
- Not drink alcohol

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- Not use recreational/ prescription drugs.
- Not be sent home by themselves. They need to be with a responsible adult.
- Not drive a motor vehicle until cleared to do so by a healthcare professional.

The CRT5 may be freely copied in its current form for distribution to individuals, teams groups and organisations. Any revision and any reproduction in a digital form requires approval by the Concussion in Sport Group, It should not be altered in any way, rebranded or sold for commercial gain.

ANY ATHLETE WITH A SUSPECTED CONCUSSION SHOULD BE IMMEDIATELY REMOVED FROM PRACTICE OR PLAY AND SHOULD NOT RETURN TO ACTIVITY UNTIL ASSESSED MEDICALLY, EVEN IF THE SYMPTOMS RESOLVE

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### **REMOVE** - IF A SOCCER PLAYER HAS A SUSPECTED CONCUSSION HE OR SHE MUST BE REMOVED FROM ACTIVITY IMMEDIATELY.

Team-mates, staff, coaches, players or parents and guardians who suspect that a player may have concussion MUST work together to ensure that the player is removed from play in a safe manner.

If a neck injury is suspected the player should not be moved and should only be removed from the field of play by emergency healthcare professionals with appropriate spinal care training. Call 911. Activate your emergency action plan.

More severe forms of brain injury may be mistaken for concussion. If **ANY** of the following are observed or reported within 48 hours of an injury, then the player should be transported for urgent medical assessment at the nearest hospital (symptoms below). **Call 911.** Activate your emergency action plan.

- ▶ Neck pain or tenderness
- ▶ Deteriorating consciousness (more drowsy)
- Increasing confusion or irritability
- ▶ Severe or increasing headache
- ▶ Repeated vomiting
- Unusual behavior change
- ▶ Seizure
- Double vision
- Weakness or tingling / burning in arms or legs

### ANYONE WITH A SUSPECTED CONCUSSION SHOULD NOT:

- be left alone until they have been assessed medically
- consume alcohol or recreational drugs in the first 24 hours, and thereafter should avoid alcohol or recreational drugs until free of all concussion symptoms
- In drive a motor vehicle until cleared to do so by a medical doctor or nurse practitioner

**RE-ENTRY** – A LICENSED HEALTHCARE PROFESSIONAL WITH EXPERTISE IN THE EVALUATION AND MANAGEMENT OF HEAD INJURY AND CONCUSSIONS MAY REVIEW A PLAYER WITH SUSPECTED CONCUSSION AT FIELD SIDE.

A player who has been removed from play who reports NO concussion symptoms and NO visual clues of a concussion can be returned to play. Any such player should be monitored for delayed symptoms, which may appear over the next 24-48 hours. If there is any doubt whether a player has sustained a concussion, they should be removed from play and undergo medical assessment by a medical doctor or nurse practitioner.

### REFER - ONCE REMOVED FROM PLAY, THE PLAYER WITH SUSPECTED CONCUSSION MUST BE REFERRED TO A MEDICAL DOCTOR OR NURSE PRACTITIONER WITH TRAINING IN THE EVALUATION AND MANAGEMENT OF HEAD INJURY AND CONCUSSIONS.

All cases of suspected concussion require referral to medical doctors or nurse practitioners for diagnosis, even if the symptoms resolve.

In geographic regions of Canada with limited access to medical doctors (rural or northern communities), a licensed healthcare professional (i.e. nurse) with support from a medical doctor or nurse practitioner can provide this diagnostic evaluation.

### **REPORT** - COMMUNICATION BETWEEN PLAYERS, PARENTS, TEAM STAFF, AND THEIR HEALTH CARE PROVIDERS IS VITAL FOR THE WELFARE OF THE PLAYER.

Players, parents and guardians must disclose the nature of, and status of all active injuries (including concussions) to coaches and team staff.

Players need to be responsible for one another and encourage the disclosure of concussion symptoms.

For children and adolescents with suspected concussion who have not been directly transferred for medical management, coaches must communicate their concerns directly with the parents or guardians.

### **RECOVER** – AVOIDING PHYSICAL AND BRAIN ACTIVITIES THAT MAKE CONCUSSIVE SYMPTOMS WORSE IS THE CORNERSTONE OF CURRENT CONCUSSION MANAGEMENT.

The management of a concussion involves an initial limited period (<24-48 hours) of physical and brain rest.

Stage 1 of the Return-to-Soccer Strategy (see Return to Soccer Strategy, page 11) involves avoiding or limiting physical and brain activities that make concussive symptoms worse.

Once concussion related symptoms have resolved, the player may start Stage 2 and continue to proceed to the next level when he/she completes the stage without a recurrence of concussion-related symptoms.

In conjunction with your school and educational professionals and health care provider, recommendations will be made about whether it is appropriate to take time away from school, or whether returning to school should be done in a graded fashion, this is called "return to learn".

Your health care provider will also make recommendations about whether it is appropriate to take time away from work, or whether returning to work should be done in a graded fashion, this is called "return to work".

### **RETURN TO PLAY**

Players who have been removed from play and referred for medical assessment for a suspected concussion who provide a completed Concussion Assessment Medical Report that is signed by a medical doctor or nurse practitioner which documents NO active concussion may participate in training sessions and game play.

Players who have been removed from play and referred for assessment for a suspected concussion who provide a completed Concussion Assessment Medical Report that is signed by a medical doctor or nurse practitioner which documents a concussion diagnosis may participate in training sessions (Stage 3 and 4) within the Return-to-Soccer Strategy (next page), once they or their parents/guardians report NO concussion symptoms and successfully completing Stage 2 (15 minutes of light aerobic activity).

Players who have concluded Stage 4 within a Return-to-Soccer Strategy who provide a second completed Concussion Assessment Medical Report that is signed by a medical doctor or nurse practitioner which documents recovered concussion may participate in full contact training sessions (Stage 5) and subsequently, game play within the Return-to-Soccer Strategy (next page), if they remain clear of concussion symptoms.

### **REASSESS**

A player with prolonged concussion recovery (>4 weeks for youth athletes, >2 weeks for adult athletes), or recurrent or complicated concussions, should be assessed and managed by a medical doctor with experience in sports-related concussions, working within a multidisciplinary team.

### **RETURN TO SOCCER STRATEGY**

Depending on the severity and type of the symptoms, players may progress through the following stages at different rates. Stages 2-4 should each take a minimum of 24 hours in adults, and longer in those 18 years and under.

If the player experiences new symptoms or worsening symptoms at any stage, they should go back to the previous stage and attempt to progress again after being free of concussion-related symptoms for 24 hour or seek medical attention.

<u> </u>	EXERCISE ALLOWED	% MAX HEART RATE	DURATION	OBJECTIVE
STAGE 0 REST	<ul><li>Rest</li><li>NO activities</li></ul>	No training	< 1-2 Days	Rest
STAGE 1 SYMPTOM LIMITED	▶ Daily activities that do not provoke symptoms		Until concussion symptoms clear	Recovery Symptom free
STAGE 2 LIGHT EXERCISE	<ul> <li>Walking, light jogging, swimming, stationary cycling or at slow to medium pace</li> <li>NO soccer</li> <li>NO resistance training, weight lifting, jumping or hard running</li> </ul>	< 70%	< 15 min	Increase heart rate
STAGE 3 SOCCER-SPECIFIC EXERCISE	<ul> <li>Simple movement activities ie. running drills</li> <li>Limit body and head movement</li> <li>NO head impact activities</li> <li>NO heading</li> </ul>	< 80%	< 45 min	Add movement
STAGE 4 NON-CONTACT TRAINING	<ul> <li>Progression to more complex training activities</li> <li>with increased intensity,</li> <li>coordination and attention e.g. passing, change of direction, shooting, small-sided game</li> <li>May start resistance training</li> <li>NO head impact activities including NO heading</li> <li>goalkeeping activities should avoid diving and any risk of the head being hit by a ball</li> </ul>	< 90%	< 60 min	Exercise, coordination and skills/tactics
	> Youth (<18 years) and adult student-athletes have returned to full-time school a	ctivities at this time		
	▶ Repeat medical assessment with second Concussion Assessment Medical Repo	ort		
STAGE 5 FULL CONTACT PRACTICE	▶ Normal training activities ie tackling, heading, diving saves	< 100%		Restore confidence and assess functional skills by coaching staff
STAGE 6 GAME PLAY	▶ Normal game play.	< 100%		Player rehabilitated