

# Saskatchewan Cycling Association



## Concussion Guidelines

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### What is a Sports Concussion?

According to the *Consensus statement on concussion in Sport: the 5th international conference on concussion in sport, Berlin 2016*, a Sport Related Concussion is a traumatic brain injury induced by biomechanical forces. Several common features that may be utilized in clinically defining the nature of a concussive head injury include:

- Sport related concussion may be caused either be a direct blow to the head, face, neck or elsewhere on the body with an “impulsive” force transmitted to the head.
- Concussion typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously. However, in some cases, symptoms and signs may evolve over a number of minutes to hours.
- Concussion may result in neuropathological changes, but the acute clinical symptoms largely reflect a functional disturbance rather than structural injury and, as such, no abnormality is seen on standard structural neuroimaging studies.
- Concussion results in a graded set of clinical signs and symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course. However, it is important to note that in some cases symptoms may be prolonged.
- The clinical signs and symptoms cannot be explained by drug, alcohol, or medication use, other injuries (such as cervical injuries, peripheral vestibular dysfunction, etc) or other comorbidities (eg, psychological factors or coexisting medical conditions).

### Common Signs and Symptoms

- Headache
- Dizziness
- Confusion, disorientation
- Feeling “dinged” “bell rung” “dazed” “slow” “foggy”
- Ringing in the ears
- Pressure in the head
- Neck pain/stiffness
- See stars/flashing lights
- Memory problems – events leading up to the injury and events after the injury
- Vision problems
- Balance problems
- Nausea/Vomiting
- Personality changes
- Concentration problems

- Co-ordination/Balance problems
- Slurred speech
- Slow to respond to questions

### Serious Signs and Symptoms

- Severe pain or pressure in head or neck
- Sensory or motor deficits
- Blood or fluid from nose or ears
- Diminishing level of consciousness
- Impaired breathing
- Loss of memory (amnesia) before impact of 30 or more minutes

Note: Persistent vomiting (greater than 2 hours) and altered level of consciousness (GCS<15) after 2 hours are indications for a CT Scan to be ordered

### What is a Suspected Concussion?

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 a suspected concussion listed above or reports ANY symptoms of a suspected concussion based on the common signs and symptoms listed above.

### What is a Concussion Diagnosis?

A concussion is diagnosed by a medical doctor or nurse practitioner. Ideally this professional will have specific training and experience in the assessment and management of concussions.

## Prevention

Prevention is the first objective in concussion management. The goal is create an environment that will minimize concussion incidence and complications.

Saskatchewan Cycling Association will work to create an environment where athletes learn respect for the rules of the sport, themselves and others. It will create a supportive and safe team culture where athletes feel confident and safe from ridicule and judgment when reporting symptoms of a concussion. All stakeholders will know how to recognize a concussion and understand the severity of this injury and will be encouraged to report suspected concussions.

## Education

### Coaches

All coaches will have standard first aid certification. In addition to this they will be required to complete a concussion education course. Certificates of completion will be provided to Saskatchewan Cycling Association. Coaches are required to complete these courses every 4 years.

Coaches will be provided with the following documents for their reference to be used with suspected concussions at practices and competitions.

Concussion Guidelines for Coaches and Trainers (Parachute Canada)

[CRT5- concussion recognition tool 5](#)

CCC Concussion Management Card

Your Documentation Tool

### Athletes

All athletes will receive annual concussion education prior to participation. This should include: what is a concussion, early recognition of signs and symptoms of concussion, sport culture to prevent concussion, concussion management protocols, return to learn and play following a concussion. This could be done in conjunction with a preseason meeting. This may include watching the following videos:

<https://www.youtube.com/watch?v=55YmbIG9YM>

<https://www.youtube.com/watch?v=zCCD52Pty4A>

Athletes will be provided with the following concussion education document.

Concussion Guidelines for the Athlete (Parachute Canada)

CCC Concussion Management Card

### Parents

Concussion education will be provided to parents. This may occur at a preseason meeting perhaps at the same time as the athletes. The above videos would also be appropriate. The concussion management protocols can also be reviewed with the parents at this time so they are aware of the steps that will be followed by the sport.

Parents will be provided with the following concussion education documents.

Concussion Guidelines for Parents and Caregivers (Parachute Canada)

CCC Concussion Management Card

## CATT Flip Card (Return to Learn and Play Guidelines)

### Protective Equipment

Each athlete will wear the appropriate protective equipment. The equipment should fit properly, be well maintained, and be worn consistently and correctly.

### Identification

All Cycling Canada stakeholders including athletes, parents, coaches, officials, trainers, and licensed healthcare professionals are responsible for the recognition and reporting of athletes who demonstrate visual signs of a head injury or who report concussion symptoms.

All suspected concussion will be documented from identification of concussion to return to learn and play on

### Management

Management is the third objective in concussion management. The goal is to optimize the management and obtain the best outcome for the concussed athlete.

### Emergency Action Plan

Any athlete with a suspected head/spinal injury will be assessed using the Emergency Action Plan and not moved until it is deemed safe to do so.

### Concussion Action Plan

If an athlete has a suspected concussion, follow the management protocol below.

- 1) An athlete suspected of suffering a concussion must be removed from play immediately and not return to activity on the same day.
- 2) Have the athlete assessed by on-site health care professional/medical doctor if available.
- 3) If the health care professionals listed above are not available on site the coach will review the athlete using the Pocket Concussion Recognition Tool.
- 4) The coach will document the concussion on the Concussion Response Tool.  
<http://ppc.cattonline.com/resources/files/concussion-response-tool.pdf>
- 5) The athlete will be continually monitored for the presence of any “Red Flags” which if present will result in an urgent 911 call.
- 6) In the absence of any Red Flags, the athlete’s care will be transferred to a responsible adult (parent/caregiver). The responsible adult will be given the CCA Concussion Education Card and the Concussion Guidelines for Parents and Caregivers. Ensure they understand the return to play guidelines. Transport athlete to hospital if any of the signs and symptoms become worse or if new signs and symptoms appear when they are being monitored.

- 7) Ensure all coaches and staff who work with the athlete are aware of the injury and the return to cycling guidelines.
- 8) All athletes must seek follow up care by a sport medicine physician in a timely manner.
- 9) Once a concussion diagnosis has been assessed, the athlete will progress through a progressive concussion management rehabilitation program supervised by a health care practitioner.
- 10) This will include a progressive guided return to learn process managed by a health care professional.
- 11) DO NOT: allow the athlete to consume alcohol, wake the athlete every 2 hours (once sleeping, rest is good, monitor during waking hours), leave the athlete unattended for more than 1-2 hrs, allow the athlete to return to cycling unless appropriate (see next section on return to cycling steps)

#### **NO SAME DAY RETURN TO SPORT IF SUSPECTED HEAD INJURY**

\* Medical doctors and nurse practitioners are the only healthcare professionals in Canada with licensed training and expertise to meet these needs; therefore all athletes with a suspected concussion should undergo evaluation by one of these professionals.

#### Return to School/Work Strategy

##### **STEP 1**

***Symptom Free activities at home:*** Typical activities during the day as long as they do not increase symptoms (i.e. reading, screen time, texting, etc). Begin at 5-15 minutes at a time and gradually build up.

##### **STEP 2**

***School/Work Activities:*** Homework, reading or other cognitive activities outside the classroom/workplace.

##### **STEP 3**

***Return to school/work part-time:*** Gradual introduction of schoolwork. Partial day or several breaks throughout the day.

##### **STEP 4**

***Return to School/Work Full Time:*** Gradual progression of school/work activities until a full day can be tolerated.

#### Return to Cycling Steps/Strategy

***\*\* NO SAME DAY RETURN TO SPORT IF HEAD INJURY SUSPECTED\*\* (For example, if an athlete crashes in warm up and a head injury is suspected, they are not to continue onto racing that day)***

***\*\*It is important that adult student-athletes, and youth (less than 18 yrs of age) return to full-time school before progressing to stage 5 and 6.***

- The athlete must remain asymptomatic throughout the steps- if they experience symptoms, they must back up one step
- There should be at least one day between progression to the next step
- IMPORTANT: ATHLETE MUST BE SYMPTOM FREE FOR 24 HOURS AFTER EACH STEP BEFORE MOVING ONTO THE NEXT STEP.

**\*\*Please note these are general guidelines and sport specific intensities for each step should be individually tailored and properly monitored and progressed by a medical professional\*\***

#### **STEP 1**

***Symptom limited activity.*** Daily activities, including light walking that do not provoke symptoms

#### **STEP 2**

***Light aerobic exercise such as trainer, rollers or stationary bike***  
NO resistance training

#### **STEP 3**

***Sport Specific Training (Low intensity)***

Road – flat, non-paceline, low stress

Track – non-group ride on track or road ride

MTB – road ride, no technical

BMX – low intensity, road ride, no technical

#### **STEP 4**

***Training Drills and Resistance Training (Increased intensity)***

Road – climbs, intervals, paceline

Track – group riding on track, intervals

MTB – training drills- low/moderate technical skills, intervals

BMX – training drills-low/moderate technical skills, intervals

\*Integration of strength and conditioning for all disciplines

#### **STEP 5**

***Regular Training and skill execution***

Road – motorpacing or group riding

Track – motorpacing

MTB – course pre-riding, technical riding

BMX – course pre-riding, technical riding

#### **STEP 6**

**Race Ready**

**\*\*Reminder this is simply a generalized example of a return to riding protocol, and will be different for each athlete, and situation.**

## Rehabilitation

While some athletes may move through the return to sport strategy with no issues— others may require more in depth assessment and treatment. It is recommended that the following systems be evaluated and treated by qualified professionals

*\*\*As a coach or team staff working with an athlete as they are recovering from concussion— be sure to ask the athlete if they have had assessments done in the following areas*

*\*\*It is advised to contact a local Therapist or Sport Medicine Doctor to determine qualified practitioners in your area*

Musculoskeletal/Cervical Spine

Oculomotor

Vestibular

Nutrition

Mental Performance