



Concussion Resources for Coaches





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The Concussion Awareness Training Tool (CATT) is a series of online educational modules and resources with the goal of standardizing concussion recognition, diagnosis, treatment, and management. Good concussion management may decrease the risk of brain damage and potentially reduce long-term health issues.

Developed by Dr. Shelina Babul, Associate Director/Sports Injury Specialist with the BC Injury Research and Prevention Unit, BC Children's Hospital, CATT is based upon the established principles of the Consensus Statement on Concussion in Sport. The 2017 Berlin Concussion in Sport Group Consensus Statement builds on the principles outlined in previous concussion statements and aims to develop better understanding of sport-related concussion.

Research and evidence on concussions is evolving and the knowledge base is continually changing. As a result, this website is updated on a regular basis to provide current information, tools, and resources to support concussion recognition, diagnosis, treatment, and management.

The information, including text and images of this package are intended for your information only and do not substitute professional medical advice and is provided for educational purposes only. Always seek the advice of a physician or other qualified health care provider about any questions you may have regarding a medical condition.

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What You Need to Know About Concussion

This information sheet provides a brief overview on the appropriate care for an individual with a concussion. It outlines the three key steps in dealing with concussion to assist recovery from this injury: recognize, respond, and manage. Visit cattonline.com for further information, resources, or to take one of the e-learning courses tailored for medical professionals, workers & workplaces, coaches, school professionals, and parents & caregivers.

Recognize

A concussion is the most common form of brain injury caused by an impact or forceful motion to the head or body that causes the brain to move inside the skull. Common causes of concussion include **falls, motor vehicle crashes, and sport and recreational-related activities.**

There is no way to know for certain whether a particular event will lead to a concussion—a relatively minor impact may result in a concussion while a higher-magnitude impact may not. It is important to note that if there is a history of concussion, even a minor impact or forceful motion can cause a concussion.

The **signs** (observed in individual) **and symptoms** (experienced by individual) consistent with concussion may include, but are not limited to:

- Headaches
- Neck pain
- Dizziness or loss of balance
- Nausea
- Blurred vision or seeing “stars”
- Sensitivity to light or sound
- Ringing in the ears
- Confusion or fogginess

Some symptoms may be **delayed for hours or days** after an injury and can include:

- Frustration or irritability
- Concentration or memory issues
- Sadness
- Anxiety or nervousness
- Fatigue
- Trouble sleeping

Concussion signs to watch for in an **infant or toddler** may include:

- Crankiness and irritability (beyond their usual)
- Cannot be comforted or excessive crying
- Sudden changes in nursing, eating, sleeping or playing patterns
- Loss of balance, unsteady walking (more so than normal)
- Lack of interest in favourite toys or activities
- Listlessness or tiring easily
- Loss of ability to carry on with newly acquired skills (across any social and emotional, language, physical development domains)

Respond

Immediately:

Following a potential concussion-causing event, the individual should be removed from activity and assessed for a **medical emergency**.

If any of the **Red Flags** are present, call 911 or seek immediate medical care.

Next steps if not a medical emergency:

- Do not leave the individual alone
- Notify an emergency contact person
- Continue to monitor for Red Flags and signs and symptoms of concussion
- Do not let the individual return to their activity
- Do not give the individual any immediate medication
- Do not let the individual leave by themselves
- Do not let the individual drive or ride a bike

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

Within 48 hours:

The individual should be monitored before assuming that a concussion has not occurred, including monitoring throughout the night following the initial injury. Do not wake the individual unless you have concerns about their breathing, changes in skin colour, or how they are sleeping. Call 911 or seek immediate medical care if the individual is slow to wake or shows any of the **Red Flags**.

- If any signs or symptoms are present, seek medical attention from a licensed medical professional such as a physician or nurse practitioner.
- If no signs or symptoms appear, the individual can return to normal activity while being monitored for several days. If no signs or symptoms appear, chances are that a concussion was not sustained. If unsure, see a medical professional for guidance.

Manage

A concussion can have a significant impact on physical, cognitive, and emotional functioning. The recovery process involves managing activities in order to not trigger or worsen symptoms—the key is finding the “sweet spot” between doing too much and too little.

The recovery process is best approached in collaboration with key individuals, such as medical professionals, family members, friends, employers, teachers and school staff, and coaches.

Within 48 hours:

The first and most important step in recovery from a concussion is to rest for a maximum of 2 days. The individual will need both physical and cognitive rest in order to allow the brain to heal.

After 48 hours:

- Physical exertion should be limited to activities that do not result in an increased heart rate or breaking a sweat. Restrict: physically strenuous work, exercise, sports, running, biking, rough play, etc.
- Cognitive activity should be limited, minimizing activities that require concentration and learning. Restrict: work or schoolwork, reading, electronics (computers, smartphones, video games, TV), musical instruments, loud music, etc.

Once symptoms start to improve, the individual should begin to increase activities in a step-wise process to return to regular levels of activity, including work, school, and sports.

Symptoms should decrease over time, but some symptoms may return, worsen, or new symptoms may appear as new activity levels are introduced. If this happens, return to a lower level of activity that does not affect or bring on new symptoms. If you are worried that the individual is not improving, follow-up with a licensed medical professional, such as a physician or nurse practitioner.

On average, it typically takes 2 to 4 weeks to recover from concussion. However, 15 to 30 percent will continue to experience persistent symptoms beyond this period. Persistent symptoms have the potential to cause long-term difficulties. If there is no improvement or symptoms are worsening 4-12 weeks after a concussion, physician referral to an interdisciplinary clinic is recommended.

The recovery period may be influenced by:

- Previous concussions
- History of headaches or migraines
- Learning disabilities
- Mental health issues
- ADHD
- Use of drugs or alcohol
- Returning to activities too soon
- Lack of family or social supports
- Participating in high-risk sport

Proper management of a concussion can reduce the risk of complications. It is important that the individual has successfully returned to work or school before fully returning to sport and physical recreation activities. Returning to full activity too soon may result in more severe symptoms or long-term problems. As well, returning to high risk activities (contact sports, dangerous job duties) before full recovery and medical clearance can put the individual at risk of sustaining another concussion with more severe symptoms and a longer recovery period.

REMEMBER:

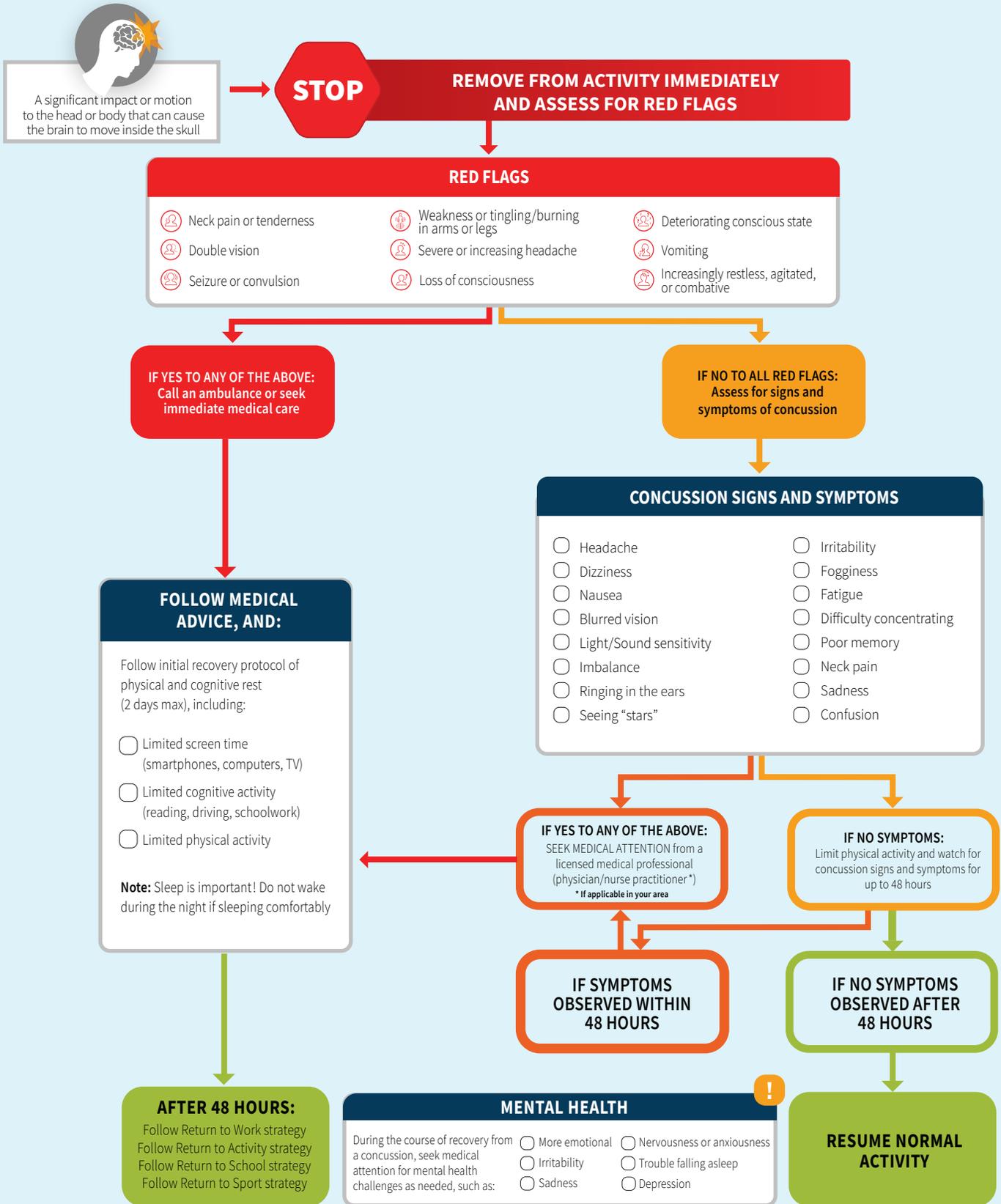
Recovery is a fluctuating process. The individual can be doing well one day but not the next.

REMEMBER:

CATT resources to support the recovery process include:

- Return to Work
- Return to Activity
- Return to School
- Return to Sport

CATT Concussion Pathway



Concussion Awareness Training Tool (CATT) Preseason Education Signoff Sheet

The following signatures certify that the player or participant and his or her parent or caregiver (if applicable) have reviewed and understand the information included in the *CATT Concussion Information Sheet*.

Name of Player or Participant
(please print)

Signature

Date

Name of Parent or Caregiver
(please print)

Signature

Date

For more information on concussion, please visit cattonline.com.

CONCUSSION INCIDENT REPORT

Follow the steps on the CATT Concussion Pathway, then document the incident below.

This incident form was completed by:

NAME:	ORGANIZATION:	
CONTACT INFORMATION:	DATE (DD/MM/YYYY):	
Did you witness the event?	Please indicate who you are completing this report for; who will receive this incident report? Please check all that apply:	
Yes	<input type="checkbox"/> Injured person	<input type="checkbox"/> Supervisor/Employer
No	<input type="checkbox"/> Emergency contact	<input type="checkbox"/> Teacher/School
NAME AND CONTACT OF ADDITIONAL WITNESSES:	<input type="checkbox"/> Ambulance attendant	<input type="checkbox"/> Coach/Sports organization
	<input type="checkbox"/> ER physician	<input type="checkbox"/> Other (write below):

ABOUT THE INCIDENT

DATE OF INCIDENT (DD/MM/YYYY):	LOCATION OF INCIDENT:
TIME OF INCIDENT:	AM PM
NAME OF INJURED PERSON:	NAME OF EMERGENCY CONTACT:
CONTACT INFO OF INJURED PERSON:	CONTACT INFO OF EMERGENCY CONTACT:

Describe the incident. Please include as much detail as possible:

Did the incident involve any of the following? Please check all that apply:

- | | | |
|---|--|---|
| <input type="checkbox"/> Blow to the head | <input type="checkbox"/> Motor vehicle collision | <input type="checkbox"/> Struck by person |
| <input type="checkbox"/> Hit to the body | <input type="checkbox"/> Fall | <input type="checkbox"/> Sport-related |
| <input type="checkbox"/> Assault | <input type="checkbox"/> Struck by object | <input type="checkbox"/> Other: |

Continue to document the incident on next page >>

**What was the immediate response to the incident?
Please check all that apply:**

- Called 911
- Called emergency contact
- Performed first aid
- No response
- Other:

**What was the immediate outcome of the incident?
Please check all that apply:**

- Taken to hospital by ambulance
- Attended to by paramedics
- Left with emergency contact
- Left independently
- Returned to activity
- Other:

Did the person exhibit any immediate signs or symptoms of concussion?

- Yes No Don't know

If yes, check all that apply:

- | | | |
|--|----------------|--------------------------|
| Neck pain or tenderness | Imbalance | Light/sound sensitivity |
| Double Vision | Irritability | Ringin g in the ears |
| Weakness or tingling/burning in arms or legs | Poor memory | Seeing "stars" |
| Severe or increasing headache | Sadness | Fogginess |
| Seizure or convulsion | Confusion | Fatigue |
| Loss of consciousness | Headache | Difficulty concentrating |
| Deteriorating conscious state | Dizziness | Other: |
| Vomiting | Nausea | |
| Increasingly restless, agitated or combative | Blurred vision | |

To be filled out by administration only

Did this incident result in a concussion diagnosis?

- Yes No Don't know

Could this incident have been prevented?

- Yes No Don't know

Please describe any follow-up actions that have been taken (e.g., safety risk assessment):

Please describe how this incident could or could not have been prevented:

Please describe any follow-up actions that are needed (e.g., systemic actions to ensure health and safety):



Medical Assessment Letter

Medical Office, please complete:	
M.D. / N.P. Name	
Medical License #	
Email / Contact #	
Date of event / injury	
Date of assessment	

To Whom It May Concern:

Any individual who sustains a blow or impact to the head, face, neck or body and demonstrates any visual signs of concussion or reports any of the symptoms of concussion is recommended to be assessed by a licensed medical professional. Accordingly, I have personally completed a medical assessment on this patient.

Name of Patient: _____

Results of the Medical Assessment

This patient has not been diagnosed with a concussion or other injury and can return, with full participation to work, school, or physical activities without restriction.

This patient has not been diagnosed with a concussion but the assessment led to the following diagnosis and recommendations:

This patient HAS been diagnosed with a concussion. *See below for concussion management protocol.*

This patient has been instructed to avoid all activities that could potentially place them at risk of another concussion or head injury, or activities with implications for the safety of others (e.g., driving, dangerous job duties, and contact sports) until a licensed physician or nurse practitioner provides a Medical Clearance Letter.

Yours Sincerely,

Signature _____ M.D / N.P. (Please circle appropriate designation)¹

Stamp

1 Depending upon physician or nurse practitioner access, the Medical Assessment Letter may be completed by a nurse with access to a licensed physician or nurse practitioner. Forms completed by other health care professionals (e.g., physiotherapists, chiropractors, and other allied health care professionals) should not be accepted. It is recommended that this document be provided to the patient without charge.

Concussion Management

The goal of concussion management is to allow complete recovery through a safe and gradual return to work, school and physical activities following a staged approach. *Note: a patient’s progress through the return to activity stages is unique to the individual.* After Stage 2, if new or worsening symptoms are experienced, the patient may need to return to the previous stage for 24 hours and consider reassessment by their physician/nurse practitioner. For more detailed information on management and resources, please refer to the Concussion Awareness Training Tool (CATT) at cattonline.com.

Stage 1: Initial Rest

In the first 24-48 hours the patient has been instructed to have complete physical and cognitive rest prior to initiating a return to work or activity.

Not yet completed
 Completed on (dd/mm/yyyy) _____
 Time period has passed

Stage 2: Prepare to return to activity at home

The patient can begin the return to activity process at home by undertaking brief familiar tasks until no new or worsening concussion symptoms are experienced.

Not yet completed
 Completed on (dd/mm/yyyy) _____
 Time period has passed

Stage 3 & 4: Prepare to return to work, school, and physical activity and gradually resume daily activities

The patient can initiate a graduated return to work, school, and physical activities on a part-time basis, by increasing and gradually resuming usual activities (supported with accommodations, modifications, and restrictions as needed) as tolerated and only at a level that does not bring on new or worsening concussion symptoms.

Not yet completed
 Completed on (dd/mm/yyyy) _____
 Time period has passed

Restrictions/Accommodations	Details	Timeline

Stage 5 & 6: Full return to work, school, and physical activities

The patient can return with full participation to work, school, and physical activities.

Not yet completed

Completed on (dd/mm/yyyy) _____

Time period has passed

Restrictions/Accommodations	Details	Timeline

Yours Sincerely,

Signature _____ M.D / N.P. (Please circle appropriate designation)²

Stamp 

² Depending upon physician or nurse practitioner access, the Medical Assessment Letter may be completed by a nurse with access to a licensed physician or nurse practitioner. Forms completed by other health care professionals (e.g., physiotherapists, chiropractors, and other allied health care professionals) should not be accepted. It is recommended that this document be provided to the patient without charge.

Return to Sport

This tool is a guideline for managing an individual's return to sport following a concussion and does not replace medical advice. Timelines and activities may vary by direction of a health care professional.

STAGE 1:	STAGE 2:	STAGE 3:	STAGE 4:	STAGE 5:	STAGE 6:
<p>No sporting activity</p> <p>Physical and cognitive rest until symptoms start to improve OR after resting for 2 days max.</p>	<p>Light aerobic exercise</p> <p>Walking, swimming, stationary cycling. No resistance training. The pace of these activities should be at the point where you are still able to have a conversation.</p>	<p>Sport-specific exercise</p> <p>Skating drills (ice hockey), running drills (soccer). No head-impact activities.</p>	<p>Non-contact drills</p> <p>Progress to complex training drills (e.g. passing drills). May start resistance training.</p>	<p>Full-contact practice</p> <p>Following medical clearance participate in normal training activities.</p>	<p>Back in the game</p> <p>Normal game play</p>
<p>Recovery</p>	<p>Increase heart rate</p>	<p>Add movement</p>	<p>Exercise, coordination, cognitive load</p>	<p>Restore confidence; assess functional skills</p>	<p>Note: Premature return to contact sports (full practice and game play) may cause a significant setback in recovery.</p>
<p>Symptoms improve or 2 days rest max?</p> <p>Yes: Move to stage 2 No: Continue resting</p> <p>Time & Date completed:</p>	<p>No new or worsening symptoms for 24 hours?</p> <p>Yes: Move to stage 3 No: Return to stage 1</p> <p>Time & Date completed:</p>	<p>No new or worsening symptoms for 24 hours?</p> <p>Yes: Move to stage 4 No: Return to stage 2</p> <p>Time & Date completed:</p>	<p>Symptom-free for 24 hours?</p> <p>Yes: Move to stage 5 No: Return to stage 3</p> <p>Time & Date completed:</p>	<p>Symptom-free for 24 hours?</p> <p>Yes: Move to stage 6 No: Return to stage 4</p> <p>Time & Date completed:</p>	

If new or worsening symptoms are experienced at any stage, go back to the previous stage for at least 24 hours. You may need to move back a stage more than once during the recovery process.

BOTH TOOLS CAN BE USED IN PARALLEL; HOWEVER, RETURN TO SCHOOL SHOULD BE COMPLETED BEFORE RETURN TO SPORT IS COMPLETED

Medical clearance required before moving to stage 5



Medical Clearance Letter

Medical Office, please complete:	
M.D. / N.P. Name	
Medical License #	
Email / Contact #	
Date of Clearance Letter	

M.D. / N.P. / Patient please complete:	
Date of Concussion	
Date of Concussion Diagnosis	
Organization/Individual Requesting Medical Clearance	

To Whom It May Concern:

Patients with a concussion should be assessed and managed by a medical professional. The goal of concussion management is to support the patient’s complete recovery from concussion by promoting a safe and gradual return to activity following a staged approach. For more detailed information and resources, please refer to the Concussion Awareness Training Tool (CATT) at cattonline.com.

As part of the strategy, this patient had previously been instructed to avoid all activities that could potentially place them at risk of another concussion or head injury until a medical clearance letter is provided (due to organizational requirements, dangerous job duties, contact sports, etc.). This patient has explained the organizational requirements and the duties/activities they participate in, and I have personally completed a medical clearance on this patient.

Name of Patient: _____

Note that the patient’s recovery is individual. After Stage 2, if new or worsening concussion symptoms are experienced the patient has been instructed to return to the previous stage of the strategy for 24 hours.

This patient can return with full participation to work, school, or physical activities **without restriction**.

This patient can return to work, school, or physical activities **with the following restriction(s)**:

Restriction(s) Physical & Cognitive	Details	Timeline

This patient can return with full participation to work, school, or physical activities **without accommodation**.

This patient can return to work, school, or physical activities **with the following accommodation(s)**:

Accommodation(s) Physical & Cognitive	Details	Timeline

Your understanding and support are critical components in this patient’s continuing recovery.

Yours Sincerely,

Signature _____ M.D / N.P. (Please circle appropriate designation)¹

Stamp 

¹ Depending upon physician or nurse practitioner access, the Medical Clearance Letter may be completed by a nurse with access to a licensed physician or nurse practitioner. Forms completed by other health care professionals (e.g., physiotherapists, chiropractors, and other allied health care professionals) should not be accepted. It is recommended that this document be provided to the patient without charge.

Additional Resources

CATT – Package for Parents/Caregivers

<https://www.cattonline.com/wp-content/uploads/2021/05/Concussion-Resources-for-Parents-and-Caregivers-CATT-V5-August-2021-.pdf>

CATT – Sport-Specific Return to Sport Protocols (2018)

<https://cattonline.com/resources/?filter=coach,protocols-and-guidelines>

Use search function to look up specific sport protocols

CATT – Package for Athletes

<https://cattonline.com/wp-content/uploads/2021/04/Concussion-Resources-for-Athletes-CATT-V5-August-2021-1.pdf>

CATT – Return to School Protocol (2017)

<https://cattonline.com/wp-content/uploads/2017/10/CATT-Return-to-School-V11.pdf>

BJSM – The Concussion Recognition Tool 5th Edition (CRT5) (2017)

<http://bjsm.bmj.com/content/bjsports/51/11/872.full.pdf>

Parachute – Concussion Guide for Coaches and Trainers (2018)

<https://horizon.parachutecanada.org/wp-content/uploads/2019/08/Smart-Hockey-Concussion-Guide-for-Coaches-Trainers-Safety-Personnel.pdf>

Parachute – Canadian Guideline on Concussion in Sport (2017)

<https://parachute.ca/en/professional-resource/concussion-collection/canadian-guideline-on-concussion-in-sport/>

Concussion Legacy Foundation Canada HelpLine

<https://www.concussionfoundation.ca/helpline>

This HelpLine supports patients and families struggling with the outcomes of brain injury. For guidance on choosing the right doctor, struggling with lingering concussion symptoms, or have any other specific questions, submit a HelpLine request and a dedicated member of the Concussion Legacy Foundation Canada team will assist you.

For more information and resources on concussion, please visit [cattonline.com](https://www.cattonline.com)

