

LIVING
CONCUSSION
GUIDELINES

Inspired by research.
Driven by compassion.

Inspiré par la recherche.
Guidé par la compassion.

LIVING CONCUSSION GUIDELINES FOR ADULTS

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▶ Current team:

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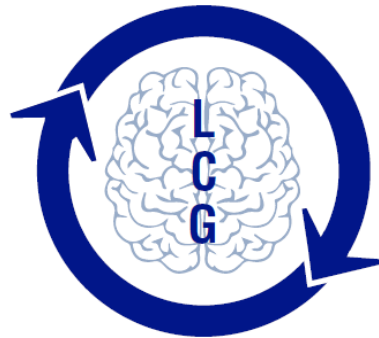
BACKGROUND AND RATIONALE

- ▶ Concussion can result in disabling symptoms, and an unfortunate minority also experience prolonged symptoms
- ▶ Early diagnosis of concussion and proper treatment are needed to speed recovery
- ▶ Healthcare providers and patients require up-to-date guidance on diagnosis and treatment
- ▶ Concussion research is being published rapidly, therefore, a guideline for the management of concussion in adults that is updated continuously is needed



PURPOSE

- ▶ The living concussion guidelines for adults provide evidence-based recommendations and resources to healthcare providers and patients



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METHODS

- ▶ A systematic review is conducted every 6 months to provide supporting evidence
- ▶ Screening, data extraction, and risk-of-bias assessments are done through multiple raters working independently
- ▶ Over 40 concussion experts from across North America examine the literature and participate in virtual meetings and online surveys to produce recommendations and resources
- ▶ Patients provide feedback on the patient version



Living Concussion Guidelines

Guideline for Concussion & Prolonged Symptoms
for Adults 18 years of Age or Older



Guideline Sections

Diagnosis

Initial Management

Sport-Related
Concussion

Diagnosis/Assessment
of Prolonged Symptoms

Management of
Prolonged Symptoms

Post-Traumatic
Headache

Sleep-Wake
Disturbances

Mental Health
Disorders

Cognitive Difficulties

Vestibular (Balance/
Dizziness) & Vision
Dysfunction

Fatigue

Return-to-Activity /
Work / School
Considerations



Diagnosis

Diagnosis of concussion is the first critical step in successful management leading to improved outcomes and prevention of further injury. The Living Concussion Guidelines adheres to the 2023 American Congress of Rehabilitation Medicine (ACRM) diagnostic criteria for concussion or uncomplicated mTBI (i.e., mTBI with no neuroimaging abnormality present).¹ The full article can be accessed [here](#). Click [here](#) to view a visual representation of the ACRM diagnostic criteria taken from the article, and [here](#) to view a visual representation of clinical signs, acute symptoms, and lab findings.

The purpose of the initial medical assessment is to establish the diagnosis of concussion by ruling out other conditions with similar symptom profiles such as more severe forms of TBI, cervical spine injuries and medical and neurological conditions.² The need for neuroimaging should also be determined using the Canadian CT Head Rule (Figure 1.1).^{3,4} Symptoms should be formally documented at the time of the initial assessment for the purpose of subsequent comparative analysis in the event of prolonged symptoms. Blood-based biomarkers⁵ are still considered investigational and therefore are not recommended for use in diagnosing/assessing patients in the ED or PCP's office.

Once a diagnosis of concussion is established, Primary Care Provider's (PCP's) should provide patients and their support person with written, verbal and/or pictorial education



Once a diagnosis of concussion is established, Primary Care Provider's (PCP's) should provide patients and their support person with written, verbal and/or pictorial education regarding management and prognosis.⁶ Follow-up by a PCP should be arranged for all patients with a diagnosed concussion to monitor progress and ensure that the patient's symptoms are improving according to expected timelines. PCPs may also consider referral to a regulated healthcare professional if necessary.

[View references](#) ▾




Recommendations ▾

Tools and Resources ▾

Summary of Evidence ▾



Recommendations 

1.1

Suspected concussion should be recognized as soon as possible and referred to a physician/nurse practitioner for diagnosis confirmation.

[Context / Level of Evidence](#) ^

Context

While other experts beyond physicians and nurse practitioners may effectively recognize concussion, referral should be made to a physician/nurse practitioner who can access the healthcare resources and infrastructure needed to fully assess and care for a patient following concussion.

Level of Evidence **A**
(recognition)

Level of Evidence **C**
(referral for diagnosis)

Last updated August 2022



Recommendations



Tools and Resources



Assessment (Appendix 1.1)

[Acute Concussion Evaluation \(ACE\): Physician/Clinician Office Version](#)



Assessment (Table 1.2)

[Table 1.2 Key Features of mTBI Assessment in an Emergency Department or Doctor's Office](#)



Informational Tool

[Canadian CT Head Rule](#)



[Recommendations](#) ▾[Tools and Resources](#) ▾[Summary of Evidence](#) ▴

To learn more about [strengths and limitations of the evidence](#) informing each recommendation, click [here](#).

Carney N, Ghajar J, Jagoda A, et al. Concussion guidelines step 1: systematic review of prevalent indicators. *Neurosurgery*. 2014;75 Suppl 1:S3-15.

PRISMA: 21/27

Associated with recommendations 1.1 and 1.4

Davis GA, Makdissi M, Bloomfield P, et al. International consensus definitions of video signs of concussion in professional sports. *Br J Sports Med*. 2019;53(20):1264-1267.

AGREE II: 93/161

Associated with recommendations 1.1 and 1.2



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