



## CLINICAL PRACTICE GUIDELINES FOR **CONCUSSIONS**

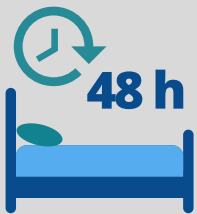
### KEY RECOMMENDATIONS FOR EMERGENCY PHYSICIANS

The evidence-based recommendations below are from the *Guideline for Concussion/Mild Traumatic Brain Injury & Persistent Symptoms Ontario* (3rd Edition) developed by the Ontario Neurotrauma Foundation in 2018

# Emergency physicians and nurse practitioners are **essential** in acute concussion diagnosis<sup>1</sup>

- ✓ **Start with a comprehensive examination**<sup>1</sup>  
Acute Concussion Evaluation (ACE)<sup>2</sup> | Sport Concussion Assessment Tool-5th Edition (SCAT5)<sup>3</sup>
- ✓ **Assess for red flags, identify risk factors, and determine need for CT scan**<sup>1</sup>  
Canadian CT Head Rule<sup>4</sup>
- ✓ **Provide patients with education and assurance about symptoms and recovery**<sup>1</sup>  
Concussion Do's and Don'ts<sup>5</sup>

### KEY MESSAGES FOR YOUR PATIENTS



**Get physical and mental rest after your injury, then gradually return to normal activities**<sup>1</sup>



**Book a follow-up appointment with your primary care provider within 1-2 weeks**<sup>1</sup>

For more information on the clinical practice guidelines and the supporting evidence, visit:

[www.braininjuryguidelines.org](http://www.braininjuryguidelines.org)

[www.concussionsontario.org](http://www.concussionsontario.org)



# CONCUSSION

## RISK FACTORS

### Risk Factors for Advanced Imaging

Adapted from Stiegl et al. The Canadian CT Head Rule for Patients with Minor Head Injury. Lancet 2001;357:1391-96



#### RED FLAGS

- Glasgow Coma Score < 15 at 2-hours post-injury
- Suspected skull fracture (open or depressed)
- Any sign of basal skull fracture
- >2 vomiting episodes
- ≥ 65 years-old
- Retrograde amnesia to the event ≥ 30 min
- Dangerous mechanism (e.g., car accident, fall)

### Risk Factors for Prolonged Concussion Recovery

Synthesized from the Concussion Recovery Pattern and Pathway (concussionsontario.org) and Table 1.1 Risk Factors Influencing Recovery Post mTBI (braininjuryguidelines.org)



#### MEDICAL FACTORS

- History of traumatic brain injury, neurological, sleep, or psychiatric problems
- Signs of vestibulo-ocular abnormalities or cognitive difficulties
- Reduced balance or dizziness
- Memory problems post-injury
- Nausea post-injury



#### CONTEXTUAL FACTORS

- Student, female, or old age
- Injured in motor vehicle collision
- Low education or socio-economic status
- High levels of symptom reporting
- Secondary gain issues (e.g. litigation)

#### If 1+ risk factors are identified:

- ✓ Encourage immediate follow-up with primary care provider
- ✓ Provide information and assurance about symptoms and recovery

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