Emergency physicians and nurse practitioners are essential in acute concussion diagnosis.

- **Start with a comprehensive examination**
  - Acute Concussion Evaluation (ACE)²
  - Sport Concussion Assessment Tool-5th Edition (SCAT5)²

- **Assess for red flags, identify risk factors, and determine need for CT scan**
  - Canadian CT Head Rule⁴

- **Provide patients with education and assurance about symptoms and recovery**
  - Concussion Do's and Don'ts⁵

### KEY MESSAGES FOR YOUR PATIENTS

- **Get physical and mental rest after your injury, then gradually return to normal activities**¹
- **Book a follow-up appointment with your primary care provider within 1-2 weeks**¹

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

- www.braininjuryguidelines.org
- www.concussionsontario.org

### REFERENCES
CONCUSSION
RISK FACTORS

Risk Factors for Advanced Imaging
Adapted from Stiegler 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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