



Diagnosing a Concussion

1. Anything beyond a light bump to the head should be assessed by a physician/NP, especially if the child is confused, has memory problems or changes in LOC.
2. A mechanism of injury & 1 symptom are enough to diagnose a concussion. Symptoms may be subtle.
3. Not all concussions require medical imaging as they are functional injuries of the brain. CT & MRI scans are generally normal & only done to rule out blood clots & more serious injuries.
4. A direct blow to the head is not needed to sustain a concussion (i.e.) a roll-over MVC or a fall from a height both involve jarring the brain within the skull, but physical evidence of an injury may not be present!

Physical Symptoms	Thinking Symptoms	Behavioural Symptoms
Headache	Confusion	Anxiety or worry
Fatigue	Feeling sluggish/foggy	Irritability
Dizziness	Slowed reaction time	Mood swings
Neck Pain	Difficulty with conversations	Depression or sadness
Nausea/eating changes	Attention/concentration changes	Lack of interest
Sensitive to light/noise	Memory/new learning changes	Impulsivity
Changes in sleep	Problem solving changes	
Changes in vision	Decision making changes	
Poor balance or coordination		
Slurred speech		
Ringling in the ears		

- *Kids may be symptom free while in hospital as it's an artificial environment, where they don't have to use their brain as much as they do when they go home or back to school.*
- *For example: a child who suffers a concussion in the summer may really struggle the first week back to school, as the brain must process data & concentrate, triggering symptoms.*
- *Sleep hygiene is really important: set bedtimes & wake-up times, melatonin can help with sleep!!*

Advice for Parents: The First Few Days

- **Do** encourage physical & mental rest for first 24-48 hours - sleep at night, rest during day, no screen-time, low stimulation, quiet dark environment
- **Do** slowly add in light activity & stimulation after the first 48 hours
- **Do** take it slow returning to daily activities & sports, do a little & gradually add in more as tolerated
- **Do** conserve energy - save mental & physical energy so the brain can fully recover
- **Do** request school accommodations as needed (i.e.) more frequent breaks, less homework, shorter assignments, more time to complete tasks
- **Do** encourage eating at regular times, avoid caffeine, keep a regular sleep schedule
- **Do** manage stress & do things to relax & feel calm
- **Do** follow the return to play guidelines listed below
- **Don't** wake child hourly - ↑ sleep is normal & needed in the acute stages of a concussion
- **Don't** return to full study, school or work—time is needed to rest the brain
- **Don't** use electronic devices if they ↑ symptoms
- **Don't** drive or ride a bike

Return to Play/School Guidelines

- Step 1: Complete Rest:** no activity or screen-time
- Step 2: Light Activity:** light reading, school work, walking or swimming
- Step 3: School:** full day, may need to end day earlier
- Step 4: Mild:** progressive activity, skating or running, but no body contact
- Step 5: Moderate:** more vigorous, sports drills, practice
- Step 6: Regular:** no game play, regular activities though
- Step 7: Game Play:** return to game

Symptoms may get worse during an activity or later in the day. If **ANY** symptoms return, child must go back to STEP 1. Generally it takes 24H+ to assess if child is ready to move onto the next step.

NEW in 2018: All Ontario School Boards require Principals to document a child's progress at each step before advancing to the next step!!!

Important Links:

- [Ontario Brain Injury Association](#)
- [Brain Injury Association of London and Region](#)
- [Concussions Ontario.org](#)
- [PABICOP—Paediatric Acquired Brain Injury Community Outreach Program:](#) <18 years, clinics in Middlesex, Elgin, Oxford, Huron & Perth, can help with school accommodations
- [Ontario Association of Children's Rehabilitation Centers \(OACRS\)](#)
- [Parachute Canada:](#) Canadian Guideline for Concussion in Sport
- [Ontario Neurotrauma Foundation:](#) Guidelines for Diagnosing & Managing Pediatric Concussions
- REQUIRED BY ALL SCHOOL BOARDS IN ONTARIO:** [Documentation of Medical Examination C-3](#) (Pink Form) and [Documentation for a Diagnosed Concussion: Return to Learn/Return to Physical Activity Plan C-4](#) (Green Form)