

Concussion and Speech Language Pathology: How we can help

What is a Concussion?

A concussion is a type of traumatic brain injury—or mTBI—caused by a bump, blow, or jolt to the head, or by a hit to the body that causes the head and brain to move rapidly back and forth. This sudden movement can cause the brain to bounce around or twist in the skull, stretching and damaging the brain cells and creating chemical changes in the brain. (Centre for Disease Control)

http://www.cdc.gov/headsup/basics/concussion_what.html



You do not need to hit your head directly to have a concussion AND you do not need to lose consciousness for it to be diagnosed as a concussion.

Medical providers may describe a concussion as a “mild” brain injury because concussions are usually not life-threatening. Even so, the effects of a concussion can be serious, so if you think you may have had a concussion, you should go to your family doctor as soon as possible.

What are the **Most Common Symptoms of a Concussion?** Symptoms of a concussion can often be divided into 4 categories or clusters. Not everyone will experience all symptoms. It is also important to know that these symptoms, or clusters of symptoms can and do impact each other. For example if you are not sleeping well, this may impact pain and difficulty thinking and communicating.

Symptoms can include

A. Physical

- Headache
- Dizziness
- Sensitivity to light and or sounds
- Changes in balance
- Visual disturbances

B. Cognitive and Communication:

- Difficulty finding the right word and responding quickly in conversation
- Feeling dazed or ‘foggy’, slowed thinking
- Difficulty concentrating and remembering
- Slurred speech
- Difficulty following conversation
- Difficulty reading
- Fatigue

C. Mood

- Irritability
- Anxiety
- Depression

D. Changes in Sleep

- In the early stage, increased need for sleep
- Difficulty falling asleep
- Difficulty staying asleep
- Sleeping too much
- Sleeping but not feeling rested upon awakening

We know that about 80% of people who have a concussion will recover completely within 4-6 weeks. However, about 15-20% of people may go on to have persistent symptoms, and a recent Canadian study found that 30% of children and youth age 5-<18 years are still symptomatic 30 days after their concussion ¹.

There are a number of **risk factors** which may contribute to the development of persistent symptoms. These include:

- Prior history of concussion
- Learning disability and or ADHD
- History of migraines
- Sex (females are more at risk; we don't know why at this time)
- Age (children, youth and older adults are more at risk)
- History of motion sensitivity/ visual motor disturbances
- History of vertigo, tinnitus
- History of chronic disease or injury
- History of sleep disorders

1. Zemek R, Barrowman N, Fredman S et al. Clinical Risk Score for Persistent Postconcussion Symptoms Among Children With Acute Concussion in the ED. JAMA J of the American Medical Association 315(10):1014 · March 2016

How can a Speech Language Pathologist help me?

A speech language pathologist (SLP) can help you by assessing your symptoms relating to your communication (e.g. listening, understanding, following conversations, speaking, thinking of what to say, reading, writing) and cognition (thinking and slowed thinking, or processing information). They can provide direct therapy to help manage these symptoms and develop strategies to help you cope. SLP's can and do help to address the functional impact of concussion such as the Return to School and Return to Learn process, Return to Work, and also with Social Communication (e.g. turn taking, unfiltered comments, changes in personality including irritability, short fuse etc, as well as things like being able to 'think on your feet', and responding quickly in conversation).

SLP's can and often do work as part of a multi-disciplinary concussion management team. In choosing any concussion practitioner, you will want to know what special training and experience they have, and how many patients they see with concussion.

Are there other resources available?

The **Ontario Neurotrauma Foundation** (ONF) has developed Guidelines to manage concussion and persistent symptoms. Speech language pathologists were involved in the development of these guidelines.

There is a Guideline for Adults: <http://onf.org/documents/guidelines-for-concussion-mtbi-persistent-symptoms-second-edition>

And a Guideline for Pediatrics: <http://onf.org/documents/guidelines-for-pediatric-concussion>

The **Ontario Brain Injury Association** (OBIA) has a Concussion Hotline as well as a Concussion Support Group and free education materials. Their toll free support line is 1-800-263-5404
<http://obia.ca/brain-injury-information/concussion-resources/>

Parkwood Institute, SJHC in London, Ontario has a comprehensive evidence based Return to School (RTS) Group Program primarily focused on post secondary students that was developed and is facilitated by a registered Speech Language Pathologist. This program is covered by OHIP.
<https://www.sjhc.london.on.ca/your-st-josephs/newsroom/new-program-helps-students-concussion-and-other-brain-injuries-return-schoo>

The Concussion Clinic at St. Michael's Hospital in Toronto, Ontario can provide a comprehensive assessment by a speech language pathologist. This program is covered by OHIP.

Centre for Disease Control

http://www.cdc.gov/headsup/basics/concussion_what_is.html

Parachute: Preventing Injuries, Saving Lives. A National Charitable Organization dedicated to preventing injuries and saving lives

<http://www.parachutecanada.org>

EMPWR: A charitable foundation whose mission is to educate and help those in need following concussion, as well as helping raise the bar in the science world to help these people, and breaking down silos of various professions and start moving in the right direction.

www.empwr.ca