Guideline for Concussion/Mild Traumatic Brain Injury and Persistent Symptoms

3rd Edition - for adults, +18 years of age

Patient Version

This guideline has been created to help with management of concussion/mild traumatic brain injury (mTBI). It is only for management for adults over 18 years of age. The guideline can be used by patients when speaking with healthcare providers about their care. It covers getting a diagnosis, managing symptoms in the early phase (acute) and management in the longer recovery phase (persistent symptoms). It is based on up-to-date, quality research evidence, the expertise of providers and the input of patients.
8) Mental Health Disorders

Mental health disorders, such as depression and anxiety, are common after a concussion/mTBI. Symptoms of these mental health disorders can affect a person’s wellness, ability to function in their everyday life, and relationships with others.

Mental health disorders can be new conditions that develop after the concussion/mTBI, or the worsening of a condition that existed before the injury. Symptoms can include irritability, anxiety, mood swings, depressed mood, and apathy (lack of interest).

Anxiety disorders can sometimes happen at the same time as depressive disorders, such as generalized anxiety, panic attacks, phobias, and post-traumatic stress disorder (PTSD).

Talk to your doctor if you are feeling depressed or anxious, or if you have sleep difficulties, pain, or other physical problems. Treating these problems early will help prevent them from getting worse and help you achieve a positive recovery.

Also let your doctor know if you have a mental health disorder that existed before your concussion/mTBI. This can affect the types and severity of symptoms you have as well as how quickly you will recover.
What causes mental health disorders after a concussion/mTBI?

It is often difficult to know the cause of a mental health disorder after a concussion/mTBI. This is because it can be due to the trauma that caused the injury or to the negative outcomes that resulted from the injury.

For example, symptoms such as increased irritability, intolerance, impatience, and mood swings can be related to the impact of the injury on the brain, but it can also be a reaction to difficulties in managing stimulation and daily activities in the early days after the injury.

Many concussion/mTBI symptoms are often related to each other. For example, trauma to the brain and body may affect how a person experiences pain and their ability to sleep, which may then cause further changes in the biology of the person’s brain.

In addition, symptoms can sometimes cause other symptoms. For example, if a person is having persistent sleep difficulties and pain, it may cause them to feel depressed. Identifying and treating their sleep difficulties and pain is likely to help lift their mood.

How will my doctor diagnose a mental health problem?

If you had a concussion/mTBI, your doctor will ask questions to find out if you have any of the following:

- Depression
- Anxiety, including post-traumatic stress disorder (PTSD)
- Behavior changes (such as apathy, mood swings, impulsivity, aggression, irritability)
• Difficulty controlling your emotions
• Alcohol or drug use
• Unexplained physical problems

It is important to tell your doctor when these symptoms started, when they happen, and if they are affecting your well-being. This information will help them decide which treatment will be best for you.

Your doctor may also want to talk with anyone who has been helping you after your injury, to find out if they might have important information about your symptoms.

How will my doctor treat my mental health problems?

If you have a mental health disorder, your doctor will select a treatment based on several factors:

• the types of symptoms you have
• how severe your symptoms are
• your needs and preferences
• if you have any other conditions and treatments.

You may need counselling, talk therapy, or medications. In some cases, a combination of these may be best.

Counselling and talk therapy, such as cognitive behavioural therapy (CBT), can help you learn to manage negative emotions and build your ability to cope with difficult thoughts and situations.
If your mental health problems are more serious or persistent, your doctor may prescribe medications. Your doctor will likely start at a low dose and increase it gradually. You may need to take the medication for at least 9 months to ensure symptoms do not come back.

It is important to see your doctor regularly, to make sure you are on the right medication at the right dose, to check for side effects, and to ensure it is not making your concussion/mTBI symptoms worse. And speak with your doctor if you want to stop taking your medication, as they will have to help you wean off gradually so that your symptoms do not return.

Your doctor may refer you to a mental health specialist if:

- your symptoms are complex and/or severe
- treatment is not helping
- you are not able to take the usual medication

Your doctor will continue to help you with your mental health symptoms and other medical issues while you wait to see a mental health specialist. They can also help you with other concussion/mTBI symptoms you may be having and arrange any accommodations you may need to return to your usual activities at home, work, or school.

To help you cope with mental health symptoms, you will need to have social support from your close friends and family members. Many people also find peer support groups to be helpful in coping.
For Ontario-specific information about peer support groups for adults experiencing persistent symptoms, please see the tools listed. There are limited support programs for adults after concussion/mTBI. Many brain injury support programs in Ontario deal mostly with moderate to severe traumatic brain injury. We have listed a number of associations that could support coping and adjustment as part of the concussion/mTBI experience. This list informs patients of the available peer support programs provincially and in their area. This list will be regularly updated.

It is also helpful to have a consistent routine, and to have regular light/mild exercise and balanced meals. It is also important to notice what you can do, and extend any activity that makes you feel calm or happy. Focusing on the positive is a key resilience skill during recovery.

**TOOLS AND RESOURCES**

- List of medications for different persistent symptoms
- Ontario - peer support resources
List of medications for different persistent symptoms

There are various medications that could help manage your persistent symptoms. The list below includes the different options that your doctor may use to manage your symptoms of concussion or mild traumatic brain injury.

Post-Traumatic Headache

Depending on the type of headache you have your doctor may prescribe one or more analgesics. For example:

- Acetylsalicylic acid (Aspirin)
- Acetaminophen (Tylenol)
- Ibuprofen (Motrin or Advil)
- Combination analgesics (such as codeine or caffeine)
- Diclofenac (Voltaren)
- “Triptan” medications (such as almotriptan, eletriptan, sumatriptan, rizatriptan, and zolmitriptan)

Your doctor may also prescribe other medications:

- Blood pressure medications (such as nadolol, propranolol, or verapamil)
- Epilepsy treatments (such as divalproex, topiramate, gabapentin, and pregabalin)
- Antidepressants (such as amitriptyline, nortriptyline, venlafaxine, and duloxetine)
- Other types of medications (such as Botulinum toxin injections)

Sleep-Wake Disturbances

Depending on the type of sleep-wake problems you’re having, your doctor may recommend or prescribe one or more of the following medications:

- Magnesium, zinc or melatonin
- Medications to prevent daytime sleepiness (such as modafinil)
- Antidepressants (such as trazodone, amitriptyline, doxepine, and mirtazapine)
- Sleep medications (such as zopiclone)
- Blood pressure medications (such as prazosin)

Mental Health Disorders

Depending on the type of mental health disorder that you have, your doctor may prescribe one or more of the following medications:
- Selective serotonin reuptake inhibitors (also known as SSRIs, such as sertraline, escitalopram, citalopram, and paroxetine)
- Serotonin norepinephrine reuptake inhibitors (also known as SNRIs, such as venlafaxine and duloxetine)
- Other types of antidepressants (such as mirtazapine, amitriptyline, imipramine, doxepin, trazodone)
## Concussion Support Services in Ontario

<table>
<thead>
<tr>
<th>Organization</th>
<th>Services</th>
<th>Contact</th>
<th>Address</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontario Brain Injury Association (OBIA)</strong></td>
<td><strong>Online Concussion Support Group</strong></td>
<td>1 (800) 263-5404</td>
<td>3550 Schmon Parkway, 2nd floor Thorold, ON L2V 4Y6</td>
<td>Provincial</td>
</tr>
<tr>
<td></td>
<td><strong>Helpline</strong></td>
<td><a href="mailto:obia@obia.on.ca">obia@obia.on.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Peer Support Program</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ross Rehab</strong></td>
<td><strong>Concussion Support Group</strong></td>
<td>(905) 777-9838</td>
<td>875 Main St. West, Suite 1, Lower Level Hamilton, Ontario L8S 4P9</td>
<td>Hamilton</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:ross@rossrehab.com">ross@rossrehab.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peel Halton Dufferin Acquired Brain Injury Services</strong></td>
<td><strong>Concussion Services</strong></td>
<td>905-949-4411 (Mississauga)</td>
<td>176 Robert Speck Parkway Mississauga, Ontario L4Z 3G1</td>
<td>Mississauga, Oakville and Orangeville</td>
</tr>
<tr>
<td></td>
<td></td>
<td>519-942-0111 (Orangeville)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:concussionservices@phdabis.org">concussionservices@phdabis.org</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Brain Injury Society of Toronto</strong></td>
<td><strong>Concussion Support &amp; Education</strong></td>
<td>416-830-1485</td>
<td>40 St. Clair Avenue East, Suite 205 Toronto, ON M4T 1M9</td>
<td>Toronto</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:infor@bist.ca">infor@bist.ca</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>