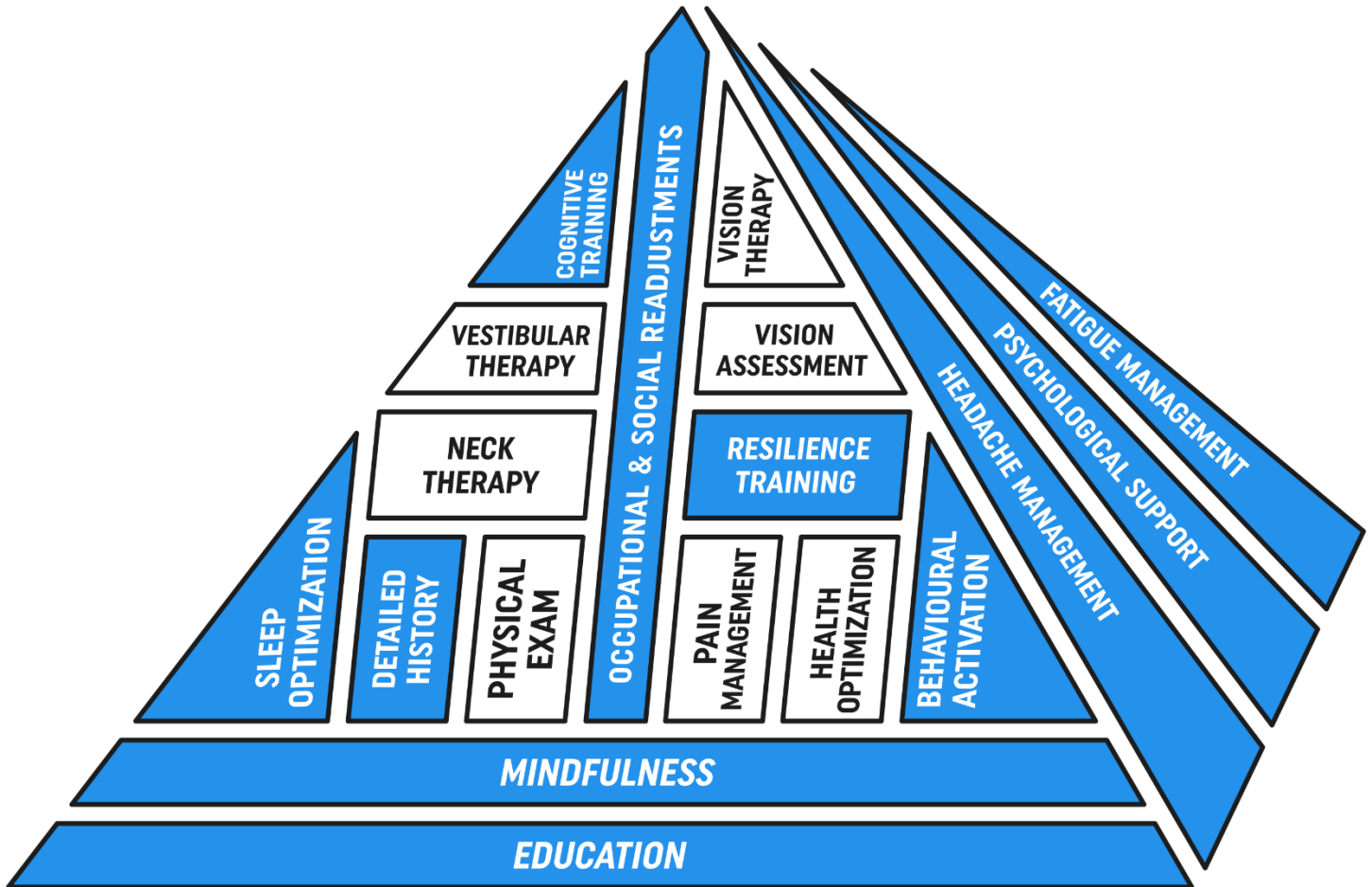


THE REHABILITATION PYRAMID



SERVICES THAT CAN BE OFFERED VIRTUALLY TO COMPLEMENT THE PRIMARY HCP'S CARE.



SERVICES RENDERED THROUGH CONSULTATION WITH THE PRIMARY HEALTH CARE PROVIDER (HCP).

- 1. EDUCATION.** Educational resources ([articles](#), [Concussion 101 podcast](#), [educational group sessions](#) and [YouTube Concussion Rehab videos](#) [coming soon]) can be found at www.yorkconcussion.ca. Our group counselling sessions also provide education and support from fellow patients and the MD.
- 2. MINDFULNESS.** [Mindfulness](#) is now widely used in health and performance fields. The use of mindfulness permeates all aspects of our program. The mantras “name it to tame it” and “feel it to heal it” are instrumental to consciously training. We have OHIP-funded group counselling sessions as well as privately-funded one-on-one training available.
- 3. DETAILED HISTORY.** A concussion history needs to be thorough. That is because the goal is to retrain a patient’s physiology and psychology to get them to their recovery goals. To achieve this, we have to understand patients’:
 - a. goals
 - b. pre- and post-injury health status, consultations and treatments
 - c. current level of functioning
 - d. lifestyle habits
 - e. psychological state
 - f. resources, including social network
 - g. social factors
 - h. stressors
 - i. This is a good time to gather any documentation you may have like previous cognitive testing, most recent optometric prescription, etc.OHIP-funded medical assessments are usually carried out over several visits and may focus on headache, mood, sleep, energy/fatigue, dizziness, vision and psychotherapy. Physiological, cognitive and psychological assessments are privately-funded. MVA specialized assessments, case management and care coordination are privately funded.
- 4. PHYSICAL EXAM.** A thorough neurological exam is required. Many patients post-concussion have dizziness. For these patients, it is recommended that they have a thorough bedside vestibular exam including the use of Frenzel lenses. Sometimes a simple maneuver can make patients feel a lot better. For this receiving virtual care, this can be done by your primary health care provider, a sports physician, a neurologist or a physiatrist, possibly in consultation with an ENT. This is OHIP-funded.
- 5. PAIN MANAGEMENT.** It helps if you can work with your primary health care provider to manage any pain you may have after your injury. This helps decrease sensitization to pain and it helps improve function.
- 6. HEALTH OPTIMIZATION.** This is a good time to see your primary health care provider to investigate for general medical conditions. Many patients post-concussion will have changes to pre-existing health conditions. Also, many patients had minor issues before the injury that they weren’t aware of (i.e., it wasn’t bothering them, or they got used to it, or they never noticed it) but post-concussion is a good time to identify any factors that can be improved to help you to your goals. Examples of things that are often picked up in the general public that may be an issue post-concussion are iron deficiency, vitamin B12 deficiency, sleep apnea, etc.
- 7. SLEEP OPTIMIZATION.** We will soon offer OHIP-funded online [CBT-insomnia](#) group counselling sessions and brief follow-up appointments. Most patients find this sufficient to correct sleep issues. Few patients will require more assistance beyond this. As an example, this can be seen in sleep disturbances caused by obstructive sleep apnea, severe post-traumatic headache of a migraine phenotype, more severe psychological distress and chronic pain. Some may need to consult their primary health care provider and possibly other providers for assistance. Our team will recommend the same if it is needed. Some of these options may be privately-funded.
- 8. BEHAVIOURAL ACTIVATION & ENERGY MANAGEMENT.** Guidelines can be found in the [Ontario Neurotrauma Foundation Guidelines](#). We will also soon provide OHIP-funded energy management group sessions online and brief follow-up appointments to help post-concussion patients better manage their energy in the early phase after a concussion. Our program has some other OHIP-funded options to help patients get started in this line of therapy. Patients will then rely on the support of their primary health care providers or with an OT (generally privately-funded). An article on our website [“Behaviours associated with prolonged recovery”](#) has helped a lot of patients develop more awareness of how important this is to recovery.

- 9. OCCUPATIONAL AND SOCIAL READJUSTMENTS.** It is extremely important that patients learn about [endurance behaviours and fear avoidance behaviours](#) and be supported back to their desired activities in a supportive manner. This may require supporting them with the completion of forms for accommodations and modifications, STD, LTD and MVA forms. This can be handled by your primary health care providers, psychologists, psychotherapists and occupational therapists. If you prefer to have the forms completed by a multi-disciplinary team, we can also assist. These services are privately-funded.
- 10. NECK ASSESSMENT AND THERAPY.** Often patients present with neck or other MSK complaints stemming from the injury that caused the concussion. An integral part of therapy that is often overlooked is neuromuscular retraining. This can be coordinated in a way to help prepare someone for vestibular therapy, visual therapy, and for working towards their goals. Patients should discuss with their rehab providers if they can receive neuromuscular retraining at their establishments. This type of therapy is generally more efficiently done in-person. These services are privately-funded.
- 11. RESILIENCE TRAINING.** This is a broad area of training that has promising results in concussion rehabilitation. It honours the biopsychosocial model (i.e., one's biological, psychological and social constitution). It aims to develop an internal locus of control using behavioural, cognitive, affective and physiological training. This permeates our program, many of which are OHIP-funded.
- 12. VESTIBULAR THERAPY.** Vestibular therapy is a broad field. It is important patients seek out vestibular rehabilitation specialists with expertise in post-concussion syndrome. Often, vestibular therapy is geared towards vestibular conditions, rather than post-concussion syndrome (PCS). PCS has unique pathophysiology and requires a methodical, customized approach to help patients work on balance and dizziness, while helping them progress towards their functional goals. We offer many services that can help patients with this, even if they are receiving care in their own communities. These services are privately-funded.
- 13. BINOCULAR VISION ASSESSMENT & VISION THERAPY.** Generally, it is a good idea to see your optometrist after a head injury, especially if patients have more severe balance issues that are felt to relate to their visual system. In non-concussion patients, many have minor visual acuity issues that doesn't bother them. In fact, often optometrists will identify this but tell patients that they don't really need glasses if it's not bothering them, and for the most part, that advice works out fine. However, for post-concussion patients, [minor prescription corrections can be helpful for rehabilitation](#). Some patients do well with prism lenses, others with plus lenses for accommodative support (i.e., the kind of glasses people start wearing when they hit their 40s to help see closer up). And then, some post-concussion patients don't need glasses at all. Our team can make recommendations to your optometrist regarding some less-routine exams they can include in your assessment to help identify issues if they are there. Sometimes, you will need to see a more [specialized optometrists who deals with eye issues that happen post-concussion](#). Our team can recommend the same if needed. Vision therapy is often helpful for [post-concussion patients with visual complaints](#). Training this is best done later on after patients have a stable social situation, good stress management and relaxation strategies, and improved autonomic functions and neuromuscular control. Sometimes, vision therapy is not needed and there is spontaneous correction of any post-traumatic visual issues. Unravelling the best approach to making your vision therapy most effective is something our team routinely helps with.
- 14. COGNITIVE TRAINING.** We recommend cognitive testing. Cognitive rehabilitation that we offer involves computerized cognitive training forums for virtual patients and "real-life" situational training for those seeing occupational therapists or psychologists. For those doing computerized cognitive training, their ability to tolerate screens must be considered. There are many factors that influence one's cognitive abilities, e.g., headache, chronic pain, sleep difficulties, psychological stress, etc. Managing these at times are more helpful in improving cognitive complaints than cognitive training. Our team works on making recommendations and offering behavioural and lifestyle treatments that optimize these factors so that you can think more clearly. Cognitive assessments are privately-funded; OHIP-funded cognitive training options are available.
- 15. HEADACHE MANAGEMENT.** Headache is the most common symptom post-concussion. For some, this is the most important first step in their care. Generally, prophylactic medication (i.e., medication you take every day for headaches, whether you have a headache or not that day) for post-traumatic headaches are less effective. Moreover, post-concussion patients are more prone to side effects. Hence, we provide patients with a thorough headache assessment and several evidence-based behavioural and lifestyle measures to treat headaches. Some

patients do well with peripheral nerve blocks. Some patients do well with pharmacotherapy managed by their primary health care providers and/or neurologists.

16. PSYCHOLOGICAL SUPPORT. Our program focuses on behavioural and lifestyle treatments. As such, we provide several “types” of OHIP-funded group psychotherapy to help patients “show up” the way they would like to in life. Our program does not prescribe medications to manage psychological conditions. We also offer one-on-one privately-funded psychological support to help one’s recovery. If using psychologist/psychotherapist outside our organization, we can offer support and guidance.

17. FATIGUE MANAGEMENT. Post-traumatic brain injury fatigue is one of the most pervasive and distressing symptoms after a concussion. It often slows down the rehabilitation process. Its non-specific nature can make it quite challenging to address. We will soon offer an OHIP-funded comprehensive post-traumatic brain injury fatigue program (PTBIF) consisting of individual and online group sessions. If patients require additional support, they may do so with one of our OTs or an OT in their community. OT support is generally privately-funded.