



# About Brain Injury

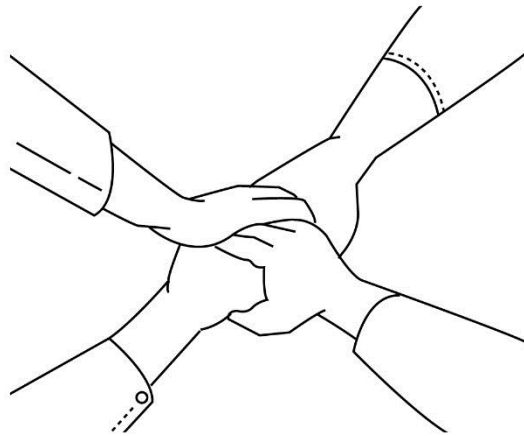


**Acquired Brain Injury (ABI) Program**



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## Introduction

Brain injury is the leading cause of disability in children and adults. All brain injuries are different. You may have problems and symptoms that can be very similar but also very different from that of another person. The consequences of a brain injury affect you and also your family and your relationships.

This booklet was created to help you and those close to you understand brain injury, what you can expect and what you can do.



## How does the brain work?

The brain is the body's control centre. The brain controls our:

- movements
- thoughts
- feelings
- senses: sight, hearing, touch, taste and smell



**Each part of the brain has a different job or function.**

**Parietal lobe**

- perception
- integrating senses
- sensations
- recognition of objects by touch
- perception of space

**Frontal lobe**

- control of attention, behaviour and emotions
- judgment
- problem solving
- movement

**Occipital lobe**

- vision

**Temporal lobe**

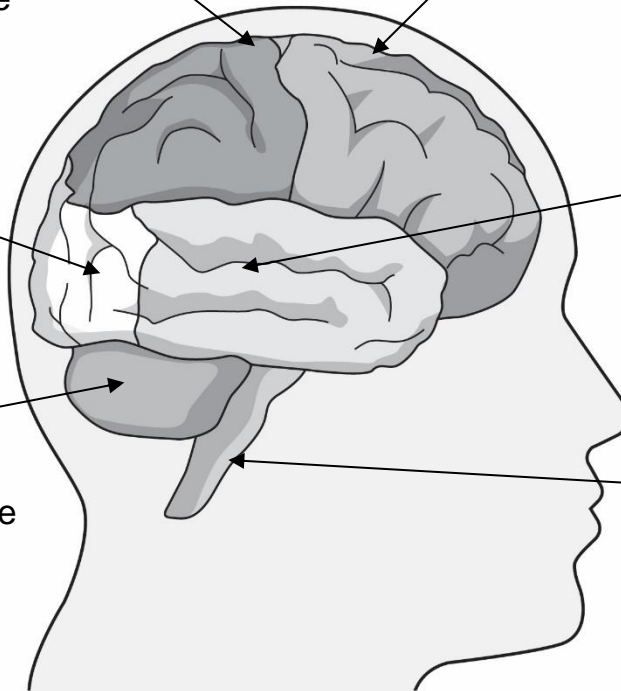
- memory
- hearing
- understanding
- language

**Cerebellum**

- coordination
- maintaining balance

**Brain stem**

- maintaining breathing and heart beat
- swallowing
- sleeping and wakefulness



## **Part 1:**

### **What is an Acquired Brain Injury (ABI) and Traumatic Brain Injury (TBI)?**

In this part you will learn:

- the consequences or symptoms of a brain injury

An Acquired Brain Injury (ABI) is damage to the brain that happens after a person is born. This damage can result from many causes.

The two types of causes are traumatic and non-traumatic:

1. **Traumatic causes** or a Traumatic Brain Injury (TBI), can result from physical trauma to the brain. This trauma can be caused by an injury from playing sports, falling, an assault, a motor vehicle accident or neurosurgery.
2. **Non-traumatic** causes include a stroke, brain tumors, infections in the brain, poisoning, brain swelling, loss of oxygen to the brain, heart attack or substance abuse. They do not involve conditions that are neurodegenerative such as dementias.



## **What are the consequences or symptoms?**

The consequences or symptoms of a brain injury are complex and can be very different between people. People with brain injuries can have different consequences because the brain controls almost every aspect of our lives such as our:

- physical skills and abilities
- thinking skills
- social skills and knowledge
- emotions
- behaviour and desires

An injury can affect specific areas of the brain or can affect many different areas. This is why the symptoms or consequences can be so different between different people.

Some symptoms or consequences will show up right away while others may develop over a few days.

The consequences of an ABI often require making a major life adjustment around the person's new circumstances. Making that adjustment is a critical factor in recovery and rehabilitation.

While the outcome of a given injury depends largely upon the nature and severity of the injury itself, the right treatment plays a vital role in determining the level of recovery.

## Things to consider:



### **The severity of the injury**

Brain traumas are classified as concussion\*\*, moderate or severe injuries.

These levels describe the amount of trauma that has occurred to the brain. Some of the factors that affect the level of severity include:

- The length of post traumatic amnesia (PTA) or the amount of time the person is conscious but is not forming or making new memories.
- The level of consciousness. The Glasgow Coma Scale (GCS) measures level of consciousness on a 15 point scale (3 being lowest level and 15 is fully conscious).
- Neuroimaging results. CT scan or MRI scans are usually used to evaluate if there are larger areas of local damage or injury. For injuries to be seen on such scans they are usually larger in nature. Many injuries do not show up on scans.

\*\* For more information on concussion, refer to the HHS patient education handout "Head injury and concussion". If you would like a copy of this handout, ask your health care provider or go to the HHS patient education library at [www.hhsc.ca/ped/](http://www.hhsc.ca/ped/) and search for "brain injury".

## **What the injury involved**

A brain injury can involve:

- bruising or swelling of tissue
- stretching or tearing of nerve fibers that connect cells
- breaking or tearing of blood vessels
- changes in brain chemistry can cause toxic chemicals to be released to the brain cells.
- a lack of oxygen that causes brain cells and nerves to die

## **Part 2: Rehabilitation**

In this part you will learn:

- about rehabilitation
- who is on the rehabilitation team
- your role in rehabilitation

## **What is rehabilitation?**

The purpose of rehabilitation is to help you understand your injury and learn skills and strategies to function as independently as possible in your home, community, work place or in all of these areas. This may include:

- relearning old skills
- learning new skills
- participating in new activities

Rehabilitation after a brain injury occurs in hospital and in the community. The type and length of rehabilitation will depend on your needs, goals and your progress. Rehabilitation is an ongoing process where you take part in activities that you find important. This can be done within a specialized rehabilitation program, a community based program or in the context of your daily life activities.

## **What is a Specialized Rehabilitation Program?**

A Specialized Rehabilitation Program typically involves a specialized team of health care providers who will design a program based on your individual needs. Different professionals may be involved for different people and at different times because each person with a brain injury has unique needs.

Your health care team can involve these members:

<b>Team Member</b>	<b>How They Help</b>
Physiatrist (Medical Doctor in Rehabilitation)	<ul style="list-style-type: none"><li>• monitors your health</li><li>• prescribes and reviews medications and procedures</li><li>• orders tests and treatments</li></ul>
Neurologist	<ul style="list-style-type: none"><li>• specializes in headache management and monitors your health</li><li>• prescribes and reviews medication and procedures</li><li>• orders tests and treatments</li></ul>
Registered Nurse and Registered Practical Nurse	<ul style="list-style-type: none"><li>• cares for your medical and nursing needs</li><li>• gives medications and teaches you or your family to manage medications</li></ul>
Physiotherapist	<ul style="list-style-type: none"><li>• helps you regain strength and range of motion in joints and muscles</li><li>• helps the person with walking, balance, fitness, strength and coordination</li></ul>

<b>Team Member</b>	<b>How They Help</b>
Occupational Therapist	<ul style="list-style-type: none"><li>• assesses and recommends ways that help with daily tasks such as eating, dressing and using the bathroom</li><li>• assesses equipment needs</li><li>• completes home assessments, including household chores</li><li>• assess skills needed to return to work</li></ul>
Social Worker	<ul style="list-style-type: none"><li>• helps you and your family cope with changes in your lives</li><li>• provides emotional support and resource counseling and referral</li></ul>
Speech-Language Therapist	<ul style="list-style-type: none"><li>• helps with spoken and written communication problems</li><li>• assesses and makes recommendations for managing swallowing problems if needed</li></ul>
Rehabilitation Therapist	<ul style="list-style-type: none"><li>• helps you relearn and practice skills with everyday activities such as dressing, walking, doing chores</li><li>• helps you explore leisure activities at home or in the community</li><li>• works with registered health care providers to determine how best to carry out these activities</li></ul>

<b>Team Member</b>	<b>How They Help</b>
Registered Dietitian/ Dietetic Assistant	<ul style="list-style-type: none"><li>• assesses your nutritional needs and provides a specific diet if needed</li><li>• provides nutritional education to you and your family</li></ul>
Therapeutic Recreationist	<ul style="list-style-type: none"><li>• assesses interests and introduces new activities</li><li>• provides links to recreational/leisure resources in the community</li></ul>
Neuropsychologist	<ul style="list-style-type: none"><li>• assesses changes in thinking and emotion after brain injury and may provide counseling.</li><li>• explains the results and meaning of neuropsychological tests — which assess thinking and emotions</li></ul>
Psychometrist	<ul style="list-style-type: none"><li>• works with the Neuropsychologist</li><li>• does a variety of tests to assess how the person thinks and feels</li></ul>
Behavioural Psychologist	<ul style="list-style-type: none"><li>• assesses and treats changes in behaviour</li><li>• guides team members to manage behaviour problems</li></ul>
Behaviour Therapist	<ul style="list-style-type: none"><li>• works with Behavioural Psychologist to implement specific ways to manage behaviour problems</li></ul>



<b>Team Member</b>	<b>How They Help</b>
Neuropsychiatrist	<ul style="list-style-type: none"><li>• assesses problems in thinking, mood and behaviour</li><li>• prescribes medication to help manage symptoms</li></ul>
Respiratory Therapist	<ul style="list-style-type: none"><li>• provides breathing assessments, oxygen therapy and treatments to help with breathing problems</li></ul>

## Your role in rehabilitation

Your team will monitor your progress on a regular basis. They will also modify the activities as needed.

The team will provide you and those close to you with information and support to keep up-to-date.

Your family will be encouraged to observe and participate in some of your therapy sessions.

A notebook is helpful to keep track of information and your questions and concerns for the team.



When you are ready to be discharged by your team, they will work closely with you and those close to you to prepare for discharge.

Referrals may be made to other professionals, programs, services, or community-based activities.

The focus of recovery is about regaining as much as possible that was lost, but also about learning to accept and deal with the changes that have occurred.



## **Part 3: Physical changes**

In this part you will learn about some of the physical changes that could happen after a brain injury:

- movement
- joints
- pain
- senses
- communication
- seizures
- breathing
- arousal
- weight
- swallowing
- bladder control
- bowel control
- skin
- fatigue
- drugs and alcohol

## **Movement**

A change in the ability to move is one of the most common issues after a brain injury. Physical changes can affect the way that you are able to move and carry out daily routines. You may have one or more of these changes:

- paralysis or weakness causing decreased use of one or both hands and/or legs
- poor balance
- low endurance
- difficulty planning movements
- poor coordination
- muscle stiffness, tension or trembling
- unable to control the trunk of your body

Your health care team will work with you to determine the treatment to keep you safe and allow your independence. This may include:

- therapy (exercises and activities)
- use of special equipment such as walkers or splints
- medications
- surgery

## **Joints**

Changes to your joints can occur as a result of your brain injury. Your health care team will recommend exercises, medications and other treatments to improve your function.

### **Heterotrophic Ossification**

As a result of chemical changes to the brain, extra bone may form around the joints. Heterotrophic ossification may be extremely painful and restrict movement. Treatment includes exercise. Medications may also be helpful.

### **Subluxation**

As a result of damage to the message pathways to the muscles around the shoulder, the ligaments and tendons may overstretch due to the weight of the arm. This pulls the arm out of the shoulder joint. This is called subluxation. It may be very painful and restrict movement.

Treatment may include use of pillows, slings and lap trays to avoid more damage. Heat, ice, gentle movement or medications may help with the pain.

## **Contractures**

Due to changes in brain activity, contractures could also occur.

A contracture is when muscles or tendons become permanently shortened. This causes a limb to become deformed.

Splints and ongoing therapy may help. In some cases contractures may require surgery, casting or both.

## **Pain**

Pain and headaches can result after a brain injury. This can make it hard to concentrate or remember and take part in daily activities.

Pain can also affect sleep and mood.

Your health care team can help you learn how to manage your pain or recommend medications that may reduce your pain.

## **Senses**

Any of the senses such as, hearing, vision, taste, smell and touch, may change after an injury. This may be the result of damage to:

- the area of the brain that controls that sense
- the sensory organ itself, such as damage to the ear
- the nerve carrying the messages from the sensory organ to the brain

You may have any of these sensory problems:

- over-sensitivity to touch — this may result in withdrawing, crying, yelling or striking out when touched
- inability to feel pain, touch, hot or cold
- inability to see certain objects in view
- loss of vision, double or blurry vision, sensitivity to light
- lack of attention to one side of the body or room — this is called neglect
- changes in sense of smell or taste
- ringing in the ears, intolerance to noise
- sensitivity to movement or lack of awareness of movement
- inability to understand where limbs are located in relation to the body and surrounding space

Your health care team will provide you with rehabilitation activities to help you become more aware of any changes and strategies to help.



## **Communication**

You may have problems communicating after a brain injury. Communication changes may result depending on the part of your brain that was affected.

Some speech problems involve:

- making sounds
- pronouncing words

Some language problems involve:

- expressing thoughts
- finding the right words
- understanding what people say
- difficulty reading and writing

Your health care team will help you understand and express yourself. Speech therapists are trained to assess and treat communication difficulties.

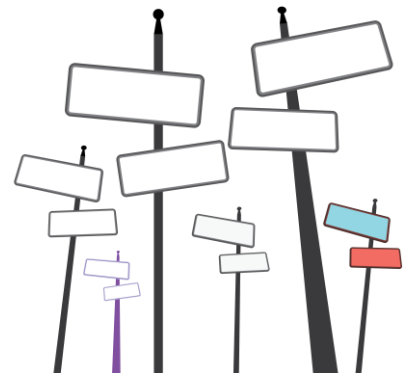
They will recommend therapy and strategies to help you communicate. There are some tests that may be recommended to help the team understand the changes that you have experienced.

## Seizures

Seizures can occur after a brain injury. Seizures are caused by disturbances in the electrical activity of the brain. During a seizure, the brain's ability to control normal movement is mixed up which can cause temporary changes. There are different types of seizures. You may not know that a seizure has occurred. It is important for your family and health care team to be able to recognize a seizure. Some people have warning signs that a seizure may happen including dizziness, nausea, vision changes, headaches, or feeling anxious.

Signs that you may be having a seizure include:

- involuntary movement such as spasms, jerking of arms, legs and/or head
- loss of bowel and bladder control
- changes in normal eye movement
- noises such as grunting or groaning
- unresponsiveness
- drooling
- changes in sensation



Seizures may occur early after the injury, or not until months or years later. They can be triggered by:

- lack of sleep
- stress
- high fever or infection
- very high or low blood sugar levels
- drinking alcohol
- medications

If a person has had seizures, activities such as driving a car or operating heavy equipment is unsafe. Your driver's license may be suspended until seizures are controlled.

Most seizures can be prevented or controlled by medication.

## **Breathing**

Certain brain injuries may impact your ability to breathe on your own. You may need a breathing tube put into your trachea, called a tracheostomy, to help you breathe easier. If a tracheostomy is recommended for you, your doctor, nurses and respiratory therapist will work closely with you to improve your breathing. If you are well enough to breathe on your own, the tracheostomy will be removed.

## **Arousal**

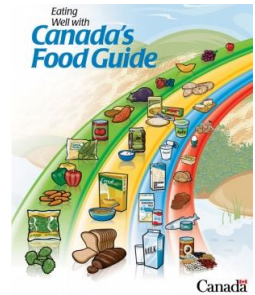
Arousal is your ability to be alert. Depending upon your injury, your level of arousal can vary, especially in the first stages of recovery. To make the most of your rehabilitation, the team will schedule activities during periods when you are alert. Medication may help to increase arousal. Arousal can improve with recovery.

## **Weight**

Weight loss right after an injury is not unusual. One reason is the high level of physical stress on your body. Another reason is that you may not feel hungry. To prevent further weight loss, you may need to be reminded to eat or be provided with frequent small snacks and meals.

Some people may gain weight. This can happen because you may not be able to tell when your stomach is full or you may forget that you already ate. Changes in activity and the way the body burns calories may cause weight gain as well. A lower calorie diet with fewer snacks and regular exercise can help to prevent weight gain.

People who have had a brain injury have the same need for nutrition as everyone else. This means eating a healthy diet based on Eating Well with Canada's Food Guide. The food guide includes a balance of vegetables and fruits, meats and alternatives, milk and alternatives and whole grains.



## Swallowing

After a brain injury, your ability to swallow may change. You may not be able to chew and swallow regular foods or drink liquid because the muscles you use are not moving correctly. You may need a special diet to help make it easier to swallow. This includes foods that have a modified texture or drinks that are thickened.

A swallowing assessment can help to determine your risks and needs. A speech therapist will recommend the types of foods and drinks that you should have, the amount of help you need, exercises and other strategies to help you.

If you cannot swallow safely or you are not able to eat enough, you may need a different type of food to get enough nutrition and calories. A tube may be put into your nose, stomach or small intestine. Liquid food and water is sent through this tube. You may need this temporarily or for a longer term. Your health care team will monitor and introduce foods when your swallowing improves.

## **Bladder control**

Loss of bladder control is common after a brain injury. Tell your doctor and health care team about any concerns you have related to your bladder routines so that they can help you manage your bladder as independently as possible.

A brain injury can affect the bladder in these ways:

- the bladder may be overactive or underactive
- you may not feel the urge to urinate, know what to do or be able to communicate to others

Your health care team will monitor your bladder function to help you manage your bladder control. Sometimes, you may need medical tests to properly assess the function of your bladder.

A urologist is a specialist who may be consulted if bladder control is related to a medical issue. Sometimes medications may be prescribed to help.

Common strategies that may be recommended:

- taking regular bathroom trips (every 2 to 3 hours)
- drinking enough fluids
- using equipment and getting the help you need to maintain your safety using the bathroom
- using a condom drainage system for males — a condom drainage system is a condom with a tube leading to a urine bag
- using intermittent catheterization where a catheter is inserted into the bladder through the urethra — the bladder is then drained and the catheter is removed
- using an indwelling catheter, which is left in the bladder
- wearing briefs, if only temporarily or when needed, such as for outings

## **Bowel control**

Loss of bowel control is common after a brain injury. It is important to tell your doctor and health care team about any concerns you have related to your bowel routines so that they can help you manage your bowels as independently as possible.

A brain injury can affect the bowels in these ways:

- the bowels may become overactive or underactive, causing either many loose bowel movements or constipation
- the bowels may not empty completely
- you may not feel the urge to move your bowels, know what to do or be able to communicate to others

Common strategies that may be recommended to promote regular healthy bowel routines:

- using equipment and getting the help you need to maintain your safety using the bathroom
- eating a healthy diet — this includes foods high in fibre, such as whole grain products, fresh vegetables and fruits
- drinking lots of fluids — hot drinks may also help
- maintaining a regular routine
- using proper positioning in a bed or chair



- maintaining overall muscle fitness and regular exercise
- sitting on a commode in an upright position
- using a stool softener, laxative or suppository as needed

## Skin

Changes to the skin are common after a brain injury. Check your skin routinely for any sores, abrasions or changes in colour.

Pay special attention to your feet, back and buttocks.

These changes are common:

- **skin sores** - may be caused by rubbing the skin on sheets or clothing too often or by not moving enough. When a person does not move enough, the weight of the body restricts blood flow which causes tissue to die. This can result in a pressure ulcer. This happens most often on a bony area such as the skin over the tailbone, ankles, heels, elbows or ears.
- **rash** - may be caused by contact with urine or bowel movements, or by sensitivity to briefs.
- **bruises or cuts** - may be caused by improper transfers from bed to chair or neglect of a paralyzed limb.
- **acne** - changes to the brain may signal the oil glands in the skin to work very hard. This can cause acne on the face, back or chest. Acne may also be caused by some medications.

Your skin needs to be cleaned regularly with a mild pH balanced cleanser during a shower or sponge bath. While in bed, change your position at least every 2 hours and shift your weight every 15 minutes while up in a chair or wheelchair. Special cushions or mattresses may also help. Eating healthy foods such as fruits, vegetables and foods high in protein and getting enough fluids can promote healthy skin.

## **Fatigue**

It is common to have fatigue after a brain injury. At first, your body needs extra rest for your injuries to heal. As you become more active, there is greater demand on your body's energy. You may also have mental fatigue. Your brain may feel overloaded making it harder to think and learn.

It is important to balance your activities, schedule activities for shorter periods of time, followed by a rest period. As you recover, you may be able to do longer activities with shorter rests.

You may have difficulties sleeping. Change in the quality of sleep is common after a brain injury. Your health care team can give you suggestions to help you sleep better or recommend medications.



## Drugs and alcohol

The use of recreational drugs or alcohol is not recommended. Alcohol and drugs that are not prescribed by your doctor can:

- make balance and coordination worse, which increases your risk of falling
- further reduce self-control
- affect recovery of brain cells



The combination of alcohol and some drugs can cause:

- seizures
- visual problems
- additional loss of brain cells
- unpredictable reactions to medications

If substance use is a concern, your health care team can help by providing you with education, strategies and support to help you manage.



## **Part 4: Changes in thinking, behaviour and mood after a brain injury**

In this part you will learn:

- mood changes
- adjustments
- professional support
- brain injury support groups

A brain injury can change the way you think, behave and feel (mood). You may not notice these changes as much as physical changes after a brain injury, but they can affect how well you are functioning.

Changes in the way that you think, behave and feel (mood) will depend on:

- which area of your brain was injured
- the type and severity of the brain injury
- how recently the brain injury occurred

You may not experience any changes in the way you think, behave or feel (mood), while others may have a significant change in one or more other areas of functioning. Each survivor is unique.

Here are general guidelines for identifying and managing some of the more common changes in thinking, behavior and mood that may arise after a brain injury.



## Changes in mood

Behaviour or Emotion	What You May Experience	What You Do
<p><b>Irritability</b></p>	<ul style="list-style-type: none"> <li>• get angry quickly</li> <li>• verbal or physical outbursts such as yelling or cursing</li> <li>• can't interpret situations accurately</li> <li>• can't perform simple tasks well</li> <li>• worry about small things</li> </ul>	<ul style="list-style-type: none"> <li>• find a calm, relaxed setting</li> <li>• play your favourite music</li> <li>• do not confront others</li> <li>• find your unique way of relaxing or calming yourself down</li> </ul>
<p><b>Emotional Lability</b> (not able to control emotions)</p>	<ul style="list-style-type: none"> <li>• mood swings</li> <li>• excessive laughing or crying</li> <li>• difficulty controlling emotions</li> <li>• emotions don't always fit with the situation</li> </ul>	<ul style="list-style-type: none"> <li>• do not be self critical</li> <li>• acknowledge the times you show self control</li> <li>• look to others to help you develop strategies to be calm</li> </ul>
<p><b>Depression</b> (occurs in 50% of people after a brain injury)</p>	<ul style="list-style-type: none"> <li>• cry often</li> <li>• appetite and sleep patterns are changed</li> <li>• lack motivation</li> <li>• withdraw from social contacts</li>   <li>• thoughts of suicide or harming yourself</li> </ul>	<ul style="list-style-type: none"> <li>• use activities and exercise to get your mind off negative/sad thoughts</li> <li>• reflect on what is happening that is positive in your life</li> <li>• engage in reinforcing/pleasant activities</li> </ul> <p style="text-align: right;"><b>If suicidal thoughts are expressed, seek professional help right away.</b></p>

<b>Behaviour or Emotion</b>	<b>What You May Experience</b>	<b>What You Do</b>
<b>Disorientation</b>	<ul style="list-style-type: none"> <li>• speech is disorganized and thoughts are not connected</li> <li>• mix up facts with fantasy</li> <li>• not sure where you are or the identity of others</li> <li>• mix up sequence of events</li> </ul>	<ul style="list-style-type: none"> <li>• use calendars, pictures and photo albums to help with</li> <li>• review details like who and where you are, date, and so on</li> <li>• talk about familiar things and people</li> </ul>
<b>Egocentricity</b>	<ul style="list-style-type: none"> <li>• focused only on yourself and insensitive to the feelings of others</li> <li>• misinterpret other people's responses or actions</li> </ul>	<ul style="list-style-type: none"> <li>• listen to other peoples feedback about your behaviour</li> </ul>
<b>Denial</b>	<ul style="list-style-type: none"> <li>• cannot admit to problems that others are pointing out to you</li> <li>• always make excuses for not doing or completing things</li> </ul>	<ul style="list-style-type: none"> <li>• listen to the input of others</li> <li>• be open to discussion about your activity or behaviour</li> </ul>
<b>Changes in eating patterns</b>	<ul style="list-style-type: none"> <li>• forget to eat</li> <li>• constantly eats</li> <li>• secretly eats</li> <li>• frequently complaining of hunger despite having recently eaten</li> <li>• do not feel hungry</li> </ul>	<ul style="list-style-type: none"> <li>• seek medical advice</li> <li>• schedule regular meal times</li> <li>• try to keep a regular routine</li> <li>• eat with other people</li> <li>• keep healthy snacks around the house</li> </ul>

<b>Behaviour or Emotion</b>	<b>What You May Experience</b>	<b>What You Do</b>
<b>Changes in communication</b>	<ul style="list-style-type: none"> <li>• talk constantly or very little</li> <li>• do not remember previous discussions</li> <li>• do not take part in or initiate conversation</li> <li>• can't come to a conclusion or a solution</li> <li>• can't stop talking, even with reminders</li> <li>• can't take turns in conversation</li> </ul>	<ul style="list-style-type: none"> <li>• listen to feedback from friends and family</li> <li>• use recommended strategies from the Speech-Language Pathologist</li> <li>• consult a health care professional</li> </ul>
<b>Forgetfulness</b>	<ul style="list-style-type: none"> <li>• can't consistently remember events</li> <li>• recall information slowly</li> <li>• forget to complete tasks</li> </ul>	<ul style="list-style-type: none"> <li>• seek a quiet, calm setting</li> <li>• ask people not to interrupt you</li> <li>• use aides to help you remember this may include a cellphone, ipad/tablet, alerts, white boards, memory book, calendars and clocks or watches</li> <li>• listen to feedback</li> <li>• ask or listen to clues</li> <li>• when clues don't work, tell the person to give you the missing information</li> <li>• help retrain the memory by providing a recap of recent events or activities</li> </ul>
<b>Impulsivity</b>	<ul style="list-style-type: none"> <li>• speak or act before you think</li> <li>• taking unnecessary risks</li> </ul>	<ul style="list-style-type: none"> <li>• think before you act or speak</li> <li>• ask someone you trust about possible risks before you act</li> </ul>



<b>Behaviour or Emotion</b>	<b>What You May Experience</b>	<b>What You Do</b>
<b>Agitation or restlessness</b>	<ul style="list-style-type: none"> <li>• feel unsettled and your body feels tense</li> <li>• can't sit still or pace aimlessly</li> <li>• unusually irritable</li> <li>• over-react (such as yelling, destructive)</li> </ul>	<ul style="list-style-type: none"> <li>• go to a quiet setting and reduce distractions and/or irritants - talk yourself down</li> <li>• try relaxation strategies such as deep breathing exercises, meditation and visualization</li> <li>• do something you enjoy</li> <li>• consider talking to someone</li> </ul>
<b>Perseveration</b>	<ul style="list-style-type: none"> <li>• talk repetitively or endlessly about one thing</li> <li>• cannot change the topic in your head</li> </ul>	<ul style="list-style-type: none"> <li>• try to force your attention onto something else</li> <li>• listen to the feedback of others</li> <li>• let others to re-direct you to another topic or activity</li> </ul>
<b>Lack of initiation</b>	<ul style="list-style-type: none"> <li>• unable to follow through on a plan</li> <li>• cannot get started on a task even though you want to complete it</li> </ul>	<ul style="list-style-type: none"> <li>• break down an activity into smaller steps</li> <li>• allow others to start the task with you</li> <li>• follow written instructions on how to complete the steps</li> </ul>
<b>Lack of motivation and apathy</b>	<ul style="list-style-type: none"> <li>• decreased interest in activities</li> <li>• has no desire to carry on with any activities</li> <li>• give up easily</li> <li>• resist encouragement to try an activity or to try it again</li> <li>• seem indifferent towards loved ones and/or about activities previously enjoyed</li> </ul>	<ul style="list-style-type: none"> <li>• find activities the person might enjoy</li> <li>• help the person find a role to play that will be meaningful to them</li> <li>• support any involvement in an activity, even if the person needs to leave early</li> <li>• encourage the person to try a task again, even if the first attempt was not successful</li> </ul>

<b>Behaviour or Emotion</b>	<b>What You May Experience</b>	<b>What You Do</b>
<b>High or low sexual interest</b>	<ul style="list-style-type: none"> <li>• may say inappropriate remarks about the opposite sex</li> <li>• try to make inappropriate physical contact with others</li> <li>• make inappropriate sexual advances</li> <li>• persistent about sex</li> </ul>	<ul style="list-style-type: none"> <li>• listen to people when they tell you that your behaviour is making them uncomfortable or is inappropriate</li> <li>• realize that there are consequences to your behaviour</li> <li>• consider counseling</li> <li>• consider self-gratification options</li> </ul>
<b>Changes in Sleep Patterns</b>	<ul style="list-style-type: none"> <li>• unable to fall or stay asleep</li> <li>• excessive sleep during the day</li> </ul>	<ul style="list-style-type: none"> <li>• stay active during the day</li> <li>• gradually reduce length of naps and increase activity</li> <li>• keep bedtimes and waking times the same every day, even on weekends</li> <li>• avoid caffeine, exercise and emotionally or mentally challenging activities before bedtime</li> </ul>
<b>Disorientation</b>	<ul style="list-style-type: none"> <li>• talk in a disorganized, disconnected way</li> <li>• mix fact and fantasy</li> <li>• unaware of your location, date, own identity or identity of others</li> <li>• confuse time periods</li> </ul>	<ul style="list-style-type: none"> <li>• use calendars, pictures and favourite music to orient the person</li> <li>• review details like who and where you are, date, and so on</li> <li>• talk about familiar things and people</li> </ul>

Behaviour or Emotion	What You May Experience	What You Do
<b>Verbal outbursts</b>	<ul style="list-style-type: none"> <li>• blurt out thoughts even if it is rude</li> <li>• speak inappropriately</li> <li>• curse excessively</li> </ul>	<ul style="list-style-type: none"> <li>• be aware of your reactions and the feedback of others and attempt to use physical or behavioural relaxation strategies</li> </ul>
<b>Anxiety</b>	<ul style="list-style-type: none"> <li>• constant and overwhelming worry or fear, such as asking “what if...” questions or repeating certain concerns over and over</li> <li>• difficulty relaxing or feeling restless or on edge</li> <li>• irritable</li> <li>• low energy or fatigue</li> <li>• difficulty concentrating</li> <li>• physical symptoms such as shortness of breath, heart palpitations, muscle tension, headaches, upset stomach or sweating</li> <li>• problems sleeping, such as trouble falling asleep at night or waking up in the middle of the night</li> </ul>	<ul style="list-style-type: none"> <li>• encourage deep breathing exercises and other relaxation techniques</li> <li>• try to maintain a normal routine. Add structure to your day. Include positive activities but pace your activities throughout the day</li> <li>• seek peer support (brain injury groups) and/or professional support</li> </ul>

## **Adjustment**

Although you had the injury, your family is also affected. The road to recovery is not neat and orderly; it may feel as if you are on a roller coaster of emotions. The impact of the injury will be different for each member of your family. There is no right or wrong way for them to feel.

## **Professional support**

If you and your family are struggling to accept and cope with the changes after your brain injury, ask your health care provider for a referral to see a professional, such as a counselor.

## **Brain injury support groups**

Brain injury support groups can help both you and your caregiver find ways to respond to new and challenging thoughts, behaviours and mood after a brain injury.

Some support groups have meetings just for you and also just for your family members and/or caregivers. See pages 71 to 77 for more information.



## **Part 5: Towards the Future**

In this part you will learn about:

- community supports
- legal supports
- financial supports
- returning to school
- returning to work/productivity
- returning to driving
- quality of life
- helpful resources

## **Community supports**

Many people continue to need ongoing support in their community for continued care, rehabilitation, return to school and work.

In most communities specific support and services are available. See pages 71 to 77 for more information.

## **Legal supports**

In some cases it may be advisable to consult a lawyer.

Depending on how the injury took place, you may benefit from working with a personal injury lawyer.

If you need help locating a personal injury lawyer, the Law Society of Upper Canada can provide you with a list of personal injury lawyers in your area. They can be reached at 1-800-668-7380 or through their website: [www.lusc.on.ca](http://www.lusc.on.ca)

The Insurance Bureau of Canada can answer general questions about insurance rights at 1-800-387-2880 or through their website: [www.ibc.ca/en](http://www.ibc.ca/en)

The Financial Services Commission of Ontario (FSCO) [www.fSCO.gov.on.ca](http://www.fSCO.gov.on.ca) can provide information on the insurance legislation.

The Automobile Accident Benefits Service (AABS) [www.slasto.gov.on.ca/en/AABS](http://www.slasto.gov.on.ca/en/AABS), a branch of the Safety, Licensing Appeals and Standards Tribunals Ontario [www.slasto.gov.on.ca](http://www.slasto.gov.on.ca), provides dispute resolution. If the insurance company rejects a claim for accident benefit(s), you may apply to AABS for help in resolving the dispute (1-800-255-2214).

## **Financial supports**

Often with a brain injury, you may need to take time off work. Applying and being approved for benefits can take time so we suggest that you start right away. It can take months before you receive any benefits.

**If you are employed, we suggest that you contact your employer first about your benefits.**

**Ask:** What short term and long term disability does my employer provide? What are the terms of the policy? What forms must be completed?

Government benefits you may be eligible for:

- Employment Insurance (EI)
  - Sickness Benefits
  - Compassionate Care



- Canadian Pension Plan Disability (CPP-D)
- Ontario Works (OW)
- Ontario Disability Support Program (ODSP)

**If you have questions or need help filling out the forms,  
contact a member of your health care team.**

If your injury is a result of a criminal act, workplace injury or related to a motorized vehicle, talk to a member of your health care team about your options. There may be legal compensation or other opportunities available.

## **Employment Insurance (EI) Sickness benefit**

### **Requirements**

- Contribution based, you must have paid into to EI. It is NOT based on your assets or needs.
- Must have worked 600 hours in the last 52 weeks and made contributions.
- Is available to self-employed persons if they joined the EI program.

### **Definition**

- Unable to work due to sickness or injury.
- Medical certificate needed from doctor.

### **Process**

- EI applications are done on-line.
- Require Record of Employment (ROE) from employer (mostly done on-line).
- Need to apply as soon as possible after stopping work.
- A 2 week waiting period is served for all EI claims.
- It takes 6 to 8 weeks to receive first payment.
- Maximum 15 week benefit.

## **Amount**

- 55% of average earnings to maximum of \$514/week (2014).
- Paid for maximum 15 weeks or time indicated by doctor on medical certificate.
- Must submit reports every 2 weeks.

## **Tips**

- Mail medical report or drop off at Service Canada office.
- Can complete application at Service Canada office if you do not have a computer.

## **Employment Insurance (EI) Compassionate Care**

### **Requirements**

- Contribution based, you must have paid into to EI. It is NOT based on your assets or needs.
- Must have decreased work by 40%.
- Must have worked 600 hours in the last 52 weeks and made contributions.
- Must be providing care and support to a family member or loved one.

### **Definition**

- Family member must be “gravely ill” and at significant risk of death within next 26 weeks.
- Medical certificate needed from doctor treating the family member/loved one.

### **Process**

- Same as other EI applications; online.
- Submit Record of Employment, Medical Certificate, Release of Medical Certificate consent form.
- 6 to 8 weeks before first payment.

## **Amount**

- 55 % of earnings up to a maximum amount.
- 26 week benefit.
- Benefits can be taken for up to 52 weeks
- Benefits can be shared among family members.

## **Other**

- Can be transferred to a sickness benefit if person becomes ill before end of claim or within one year. Must file a medical certificate to do so.

**For more information about EI benefits  
search the website: [servicecanada.gc.ca](http://servicecanada.gc.ca)**

## CPP Disability (CPP-D)

### **Requirement**

- Contribution based, you must have paid into CPP. It is NOT based on your assets or needs.
- Contributed 4 of the last 6 years OR contributed 3 of the last 6 years and a total of 25 years of contribution overall.
- People over 18 and under 65.

### **Exceptions**

- Contribution not made while child-rearing or collecting CPP-D.
- Under certain conditions a person may submit a late application for CPP-D. The Social Worker can discuss these conditions with you.

### **Definition**

- Severe (unable to do any job).
- Prolonged (1 year from time of application or longer).

## **Process**

- Application includes: personal information, questionnaire, consent forms and a medical report.
- Takes at least 4 months (or longer) to process application and make a decision.
- Will be sent “Notice of Entitlement” with start date and monthly amount along with any back or retroactive payments.

## **General information**

- Benefits are taxable.
- Benefits for children; if less than 18, or if 18 to 25 enrolled full-time in school.
- Has return to work incentives and if your same disability returns within 2 years, benefits are automatically restarted once CPP is notified.
- No medication or dental coverage.
- The Trillium Drug Program (TDP) is available to assist with the cost of prescription drugs. Call 1-800-575-5386 to request an application form, or you may obtain one at your pharmacy. You may also download the “Application for Ontario Drug Benefits” and “A Guide to Your Application (ODB)”.

[www.health.gov.on.ca](http://www.health.gov.on.ca)

- The Assistive Devices Program (ADP) provides funding for assistive devices such as, wheelchairs, mobility aids, prostheses, braces, visual and communication aids or hearing aids. Contact the Ministry of Health and Long-Term Care, ADP, for further information at 1-800-268-6021.  
[www.health.gov.on.ca/en/public/programs/adp](http://www.health.gov.on.ca/en/public/programs/adp)

### **Tips for CPP-D**

- Keep copies of all records.
- Contact Service Canada to request “Statement of Contributions” in order to know CPP-D monthly amount.

**For more information on CPP-D**  
search the website: [servicecanada.gc.ca](http://servicecanada.gc.ca)



## **Ontario Works (OW)**

A municipal program through Social Services. Basic monthly support to those in financial need (short term assistance).

### **Requirement**

- Is asset-tested, must demonstrate financial need and limited resources and household income.
- You will need to provide financial information (previous income, housing costs, income tax, bank records, family size, assets) dating back several months.

### **Allowable assets**

- There is a list of allowable assets, such as your home, that your worker can review with you. They will not include these assets when figuring out what is available to you.

### **Three categories for OW**

- Employable.
- Restrictions to participate because temporarily ill or caring for an ill person.
- Disabled, a permanent barrier to employment and will be applying for Ontario Disability Support Program.

## **Process**

- Online application.
- Contact local office for telephone application.
- Then, intake appointment (if long term disability then inform OW worker so ODSP application can be started).
- Payment usually within 4 working days.

## **Other benefits**

- Ontario Drug Benefit card (ODB).
- Other benefits both mandatory and discretionary.
- Please discuss your specific situation with your worker.

**For more information on OW**  
**search the website: [www.mcass.gov.on.ca](http://www.mcass.gov.on.ca)**  
**or call 905-546-4800 (Hamilton)**

## Ontario Disability Support Program (ODSP)

A provincial program through Ministry of Community and Social Services.

### **Requirement**

- Is asset-tested for those with a disability and financial need.
- Must verify limited assets and household income from all sources.
- Will need to show financial records from several months back.

### **Allowable assets**

- Some assets are allowable, which your worker can review with you. They will not include these assets when figuring out your benefits.

### **Definition of disability**

- A Disability Determination package will be given to you containing:
  - Health Status Report for doctor
  - Activities of Daily Living report for your doctor or allowable health professional
  - Self report
  - Consent form

- Disability: Substantial physical or mental impairment, continuous or recurrent, lasting one year or more, and limits your ability to work, look after yourself or function in the community.

### **Process**

- Online or contact local office for telephone application.
- Scheduled appointment to supply required information.
- Must demonstrate financial need to continue application, then disability is determined.
- Takes 4 to 6 months.
- If you have qualified for CPP-D, then you do not need further medical clearance from ODSP. Must just meet asset determination.
- If you have immediate financial needs then you must apply for OW.

### **Other benefits**

- Please discuss any other benefits with you ODSP worker such as medication coverage.

**For more information on ODSP  
search the website: [www.mcass.gov.on.ca](http://www.mcass.gov.on.ca)  
or call 905-521-7280 (Hamilton)**

## **Senior benefits (if you are 65 or older) that may be available**

If you are over 65, you currently receive a pension income. You do not need to apply for further disability income. If you have areas of financial need, please speak with a Social Worker about your concerns.

### **Income sources for seniors**

For more information on the below benefits search the websites:

- Service Canada - [www.servicecanada.gc.ca](http://www.servicecanada.gc.ca)
- Canada Pension Plan (CPP)
- Old Age Security (OAS)
- Guaranteed Income Supplement (GIS)
- Ontario Guaranteed Annual Income System (GAINS)  
<http://www.fin.gov.on.ca/en/credit/gains/>

## Returning to school

If you wish to return to school, contact the school last attended or the Board of Education.



- You will be directed to Special Education.
- You will develop a learning plan with the Special Education Department and your team.
- You may be eligible for an Educational Assistant.

If you are 16 to 18 years old and not in school right now, you may choose to:

- Start regular school with a full or reduced course load.
- Take correspondence course and work at home.
- Sign up as a mature student for night school.

Colleges and universities also have services for special needs students that include:

- Teaching study skills.
- Providing special equipment to assist learning.
- Giving information about bursaries for tuition, books and disability related equipment.

## Returning to work/productivity

Returning to work and/or productive activities following a brain injury may include several steps. Work with a health care provider to return to activities such as:

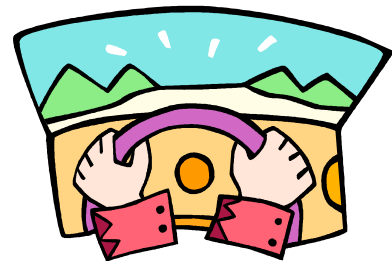
- volunteer work
- hobbies
- new activities
- returning part-time, returning to work on modified duties, and/or returning to full-time work



There are vocational assessment services that can assess your work skills. They also provide work retraining programs. Discuss these services and your options with your team.

## Returning to driving

In Ontario, your doctor must report to the Ministry of Transportation (MTO) that you have had a brain injury. This is because it might be dangerous for you to drive a car.



The rules in Ontario are:

- Your doctor must assess your readiness to drive.
- You may return to driving if you have no major changes in:
  - your vision
  - your physical skills
  - your thinking such as problem-solving or judgment

These areas must be assessed by your health care team.

- When your doctor is not sure if you are ready to drive, he or she may tell you to go to a special driving centre for more tests.

### **When can I be tested for driving?**

This is decided on an individual basis. You need to discuss this with your occupational therapist, neuropsychologist, your doctor or specialist.

### **What is the process for getting my license back?**

The timing is different for everyone. This is because brain injuries affect everyone differently. Your health care team can help you decide when you are ready.



**Do not drive during this time** because the Ministry of Transportation (MTO) was told about your injury:

- You will receive a letter from the MTO that will tell you first if your license is suspended.
- The letter will also tell you the steps you should take to get your license back.

The steps to get your license back can include:

- The MTO may ask you to get a letter or have a form filled out by your family doctor or specialist.
- The MTO or your health care team may require your driving skills to be tested. This is called an assessment and may include:
  - a written test
  - an on-road driving test
  - a vision test
  - a cognitive test

**Ask your health care provider about Ministry of Transportation Approved Driving Assessment Centres in your area where you can take these tests. See the following website for more details [www.mto.gov.on.ca](http://www.mto.gov.on.ca)**

## **What is a driving assessment?**

There can be two parts to a driving assessment.

### **Part One: Pre-road tests**

- Your health care team will either do these tests with you at the hospital or at a driving centre.
- They look at your vision, judgment, thinking and physical skills.
- These tests will show whether you are ready for the on-road test, you need more practice or you should think about different options.

### **Part Two: On-road test**

- This test will be done in a car with a Certified Driving Instructor.
- They will look at your driving skills, such as safety, following directions and your physical ability to drive a vehicle.
- You will have to cover the cost, which is about \$500 to \$800. This is why it is important you wait until you are ready.

**You must be referred for the driving assessment by a doctor.**

### **What will the driving assessment tell me?**

1. You can return to driving.
2. With changes made to your car, you may be able to return to driving.
3. It is too soon to return to driving, you need drivers' rehabilitation. After practicing or learning new ways to drive, you may return to driving.
4. You are not able to return to driving.

### **What if I am no longer able to drive?**

This may be a very hard time for you and your family. It is normal to feel upset, angry, or a sense of loss. It may be hard to accept this decision, but there are other options for you.

**Ask your health care team members about resources in your community that can help you get to places you need to go.**

## **Quality of life**

Having a brain injury impacts every person differently. It is important that you continue to live your life and be involved in meaningful activities and roles that reflect your interests, goals and abilities.

You may find that many things have changed such as your priorities, routines, and demands on your time. After a period of adjustment, life will settle into a new routine.

Making healthy life choices will help you recover and have a better quality of life.

### **Eat well**

Try to eat three meals a day at about the same time each day. If you have questions about what to eat, check with your family doctor; he or she may refer you to a dietitian. Healthline [www.healthline.ca](http://www.healthline.ca) is an on-line resource that may also be able to help you with questions or concerns.

### **Sleep well**

Lack of sleep can limit your ability to think clearly and make good decisions. It also affects your physical health, since your body repairs and rejuvenates itself during a normal sleep cycle.

### **Exercise regularly**

Be active for at least 20 minutes each day.

### **Avoid substances**

Avoid substances such as alcohol and street drugs.

### **Avoid smoking**

Talk to your doctor or health care professional about strategies to help you quit.

### **Stress management and pacing**

- Use relaxation exercises
- Decrease obvious stressors
- Engage in enjoyable activity
- Stay mentally and physically active
- Enjoy family and friends

### **Set goals**

Setting realistic goals will help you to stay focused and be successful. Share your plan and involve family and friends and caregivers so that they can support you.

### **Explore your interests**

Many individuals may find themselves with more free time available. Make use of the free time that you have. Choose activities that you have enjoyed in your past or that you would like to try.

It is important that you understand your abilities when choosing activities and seek help as needed to be successful. All activities offer opportunities to practice and develop skills. Your therapists can provide suggestions to improve your skills.

### **Get involved in your community**

Being involved in your community can provide you with meaningful activities and enhance social network. There are many opportunities to be involved and connected to your community. Talk to your health care team, family and friends. They can provide support and help you identify opportunities that match your interests, goals and abilities. Take a class, join a gym, volunteer or attend a recreational program, enjoy cultural and spiritual activities.

### **Brain injury support**

Most communities have a brain injury association that provides opportunities for support, education, social and/or recreational opportunities.

## **Transportation**

If you are unable to drive, there are options available in most communities. If you need specialized transportation, wheelchair accessible transportation services are available in most communities. Your doctor or health care professional can help you arrange these services.

To find out more about transportation options available in your community or travelling with a disability, visit this website:

[www.accesstotravel.gc.ca](http://www.accesstotravel.gc.ca)

## **Volunteer drivers**

Many communities have volunteer drivers that charge a small fee. These services are usually prioritized for medical appointments. Family and friends may also be able to help you with transportation.

## **Public transportation**

Learning to use public transportation may increase your opportunities for independence and greater access to the community. Your health care team can provide support and education related to using the bus and/or taxis. There are sometimes subsidies available to individuals to support transportation costs.

### **Leisure links**

Check with your parks and recreation facilities for detailed information on programs, services and supports.

### **Access to entertainment**

A community access card is available for individuals with a disability to participate in recreation activities with an attendant.

Visit [www.accessinformation.ca](http://www.accessinformation.ca)

## **Helpful information**

### **Community Care Access Centre (CCAC)**

CCAC provides access to community care in your home, day programs and long term care. To find your local CCAC support, go to [www.healthcareathome.ca](http://www.healthcareathome.ca)

### **The Ontario Neurotrauma Foundation**

Supports research and practice in the field of neurotrauma.

For more information go to [www.onf.org](http://www.onf.org)



## **Rehabilitation Resource Centre**

The centre works with individuals, family members and caregivers whose lifestyle is significantly altered by illness or injury. It provides:

- personalized information
- peer support
- links to the broader community

Location:

Regional Rehabilitation Centre

300 Wellington Street North, 1<sup>st</sup> Floor

Hamilton, ON L8L 0A4

Phone: 905-521-2100, extension 40805

## **Ontario Brain Injury Association**

[www.obia.ca](http://www.obia.ca)

1-800-263-5404

The Ontario Brain Injury Association (OBIA) is a provincial not-for-profit, charitable organization. Their mission is to enhance the lives of Ontarians living with the effects of acquired brain injury (ABI) through education, awareness and support.

OBIAs services include:

- information and resources on acquired brain injury
- 1-800 toll free helpline
- personal advocacy and support
- training and education for families and professionals

### **Camp Dawn**

Camp Dawn is a camping retreat for adults living with a brain injury in Southern Ontario. Camp Dawn provides campers with the opportunity to practice and develop skills and independence in an outdoor, recreational environment that promotes a healthy lifestyle. Camp Dawn also provides an opportunity to get away, make new friends, meet with old friends, try new activities, and take part in familiar activities in a supportive environment alongside others who are facing similar challenges.

Camp Dawn  
C/O Brain Injury Association of London  
London, ON N6A 3R4  
Phone : 519-642-4539  
Fax : 519-642-4124  
Email: [campdawninfo@gmail.com](mailto:campdawninfo@gmail.com)  
Website: [www.campdawn.ca](http://www.campdawn.ca)

## **Brain Injury Associations**

### **South Central Ontario**

**Brain Injury Society of Toronto**  
40 Orchard View Blvd. Suite 252  
Toronto, ON M4R 1B9  
Phone: 416-830-1485  
Email: [info@bisto.ca](mailto:info@bisto.ca)  
Website: [www.bisto.ca](http://www.bisto.ca)

**Head Injury Association  
of Fort Erie and District**  
649 Niagara Blvd.  
Fort Erie, ON L2A 3H7  
Phone: 905-871-7789  
Email: [haifevents@bellnet.ca](mailto:haifevents@bellnet.ca)

**Brain Injury Association of Niagara**  
Office Location:  
10-261 Martindale Road  
St. Catharines, ON L2W 1A2  
Mailing Address: P.O. Box 20019  
Thorold, ON L2V 5B3  
Phone: 905-984-5058  
Email: [bianstaf@niagara.com](mailto:bianstaf@niagara.com)  
Website: [www.bianiagara.org/](http://www.bianiagara.org/)

**Brain Injury Association  
of Peel & Halton**  
2155 Leanne Blvd. Suite 240  
Mississauga, ON L5K 2K8  
Phone: 905-823-2221  
Email: [biaph@biaph.com](mailto:biaph@biaph.com)  
Website: [www.biaph.com](http://www.biaph.com)

**Hamilton Brain Injury Association**  
822 Main Street East  
Hamilton, ON L8M 1L6  
Phone: 905-538-5251  
Email: [info@hbia.ca](mailto:info@hbia.ca)  
Website: [www.hbia.ca](http://www.hbia.ca)

## **South Western Ontario**

### **New Beginnings Club**

9 Maple Leaf Drive  
Chatham, ON N7M 6H2  
Phone: 519-351-0297  
Email: [lgall@newbeginnings-cksl.com](mailto:lgall@newbeginnings-cksl.com)  
Website: [www.newbeginnings-cksl.com](http://www.newbeginnings-cksl.com)

### **Brain Injury Association of Grey Bruce**

P.O. Box 481  
Owen Sound, ON N4K 5P7  
Phone: 519-373-8555  
Email: [biagrey-bruce@hotmail.com](mailto:biagrey-bruce@hotmail.com)  
Website:

### **Brain Injury Association of London and Region**

560 Wellington Street, Lower Level  
London, ON N6A 3R4  
Phone: 519-642-4539  
Email: [braininjuryassoc@bellnet.ca](mailto:braininjuryassoc@bellnet.ca)  
Website: [www.braininjurylondon.on.ca](http://www.braininjurylondon.on.ca)

### **Brain Injury Association of Windsor & Essex County**

201-200 West Grand Blvd.  
Windsor, ON N9E 3W7  
Phone: 519-981-1329  
Toll Free: 1-800-263-5404  
Email: [info@biawe.com](mailto:info@biawe.com)  
Website: [www.biawe.com](http://www.biawe.com)

### **Brain Injury Association of Waterloo-Wellington**

555 King Street West  
7<sup>th</sup> Floor  
Kitchener, ON N2G 4W1  
Phone: 519-772-7500  
Website: [www.biaww.com](http://www.biaww.com)

### **Brain Injury Association of Sarnia Lambton**

1705 London Line  
Sarnia, ON N7W 1B2  
Phone: 519-337-5657  
Email: [info@sarniabrasl.ca](mailto:info@sarniabrasl.ca)  
Website: [www.sarniabrasl.ca](http://www.sarniabrasl.ca)

## **Northern Ontario**

### **Simcoe County Brain Injury Association**

#D - 580 Bryne Drive  
Barrie, ON L4N 9P6  
Phone: 705-734-2998  
Email: [scbia@csolve.net](mailto:scbia@csolve.net)

### **Brain Injury Association of Sudbury & District**

750 Brancroft Drive  
Sudbury, ON P3B 1T9  
Phone: 705-670-0200  
Email: [info@biasd.ca](mailto:info@biasd.ca)  
Website: [www.biasd.ca](http://www.biasd.ca)

### **Brain Injury Association of Thunder Bay & Area**

426 Balmoral Street  
Thunder Bay, ON P7C 5G8  
Toll Free: 1-800-796-1188  
Email: [bisnoro@bisno.org](mailto:bisnoro@bisno.org)  
Website: [www.bisno.org](http://www.bisno.org)

### **Brain and Seizure Association (Timmins)**

733 Ross Avenue  
Timmins, ON P4N 8S8  
Phone: 705-840-8882  
Email: [sabicrl@eastlink.ca](mailto:sabicrl@eastlink.ca)  
Website:  
[www.seizurebraininjurycentre.com](http://www.seizurebraininjurycentre.com)

### **Brain Injury Association of Sault Ste. Marie and District**

127-31 Old Garden River Road  
Sault Ste. Marie, ON P68 5Y7  
Email: [biassmd@shaw.ca](mailto:biassmd@shaw.ca)  
Website: [www.braininjuryssm.ca](http://www.braininjuryssm.ca)

### **Brain Injury Association of North Bay and Area**

280 Oakwood Avenue  
North Bay, ON P1B 9G2  
Phone: 705.840.8882  
Email: [contact@niaba.ca](mailto:contact@niaba.ca)  
Website: [www.bianba.ca](http://www.bianba.ca)

## **Eastern Ontario**

### **Brain Injury Association Peterborough Region**

158 Charlotte Street  
Peterborough, ON K97 2T8  
Phone: 705-741-1172  
Toll Free: 1-800-854-9738  
Email: [biapr@nexicom.net](mailto:biapr@nexicom.net)  
Website: [www.biapr.ca](http://www.biapr.ca)

### **Brain Injury Association of Ottawa Valley**

300-211 Bronson Avenue  
Ottawa, ON K1R 6H5  
Email:  
[braininjuryottawavalley@bellnet.ca](mailto:braininjuryottawavalley@bellnet.ca)  
Website: [www.biaov.org](http://www.biaov.org)

### **Brain Injury Association of Southeastern Ontario (Kingston)**

Epilepsy Kingston  
100 Stuart Street  
Kingston, ON K7L 2V6  
Phone: 613-536-1555

### **Brain Injury Association of Quinte District**

223 Pinnacle Street  
Core Centre  
Belleville, ON K8N 3A7  
Phone: 1-866-894-8884  
Email: [biaqd@bellnet.ca](mailto:biaqd@bellnet.ca)  
Website: [www.biaqd.ca](http://www.biaqd.ca)