

# Physical Therapy

## How it can Help Living with a Brain Injury

Brain injuries can have many causes; depending on the cause, damage can affect one or multiple parts of the brain. Brain injuries can fall into two categories. **Traumatic brain injury (TBI)** occurs when a sudden trauma happens to the brain. This kind of brain injury can occur when the brain suddenly hits an object, but the object does not enter the skull, or when an object penetrates the skull through to the brain. The other kind of brain injury is called **non-traumatic brain injury**, and happens due to disease or difficulties with health.

The most common cause of TBIs for those under the age of 75 are due to transportation involving cars, bikes, motorcycles, and pedestrians. The most common cause of TBIs for those above the age of 75 are due to falls. Other causes of TBIs include violence (such as abuse or firearm assaults), and sports injuries. While it is impossible to predict when or how a brain injury may occur, doing the following may lower your chance of receiving one:

- Wear a seatbelt while riding in/driving a vehicle
- Avoid driving under the influence of drugs and/or alcohol
- Look for approaching vehicles before crossing the street
- Wear proper safety equipment while riding a bike or playing sports
- Keep firearms and bullets secure in a locked cabinet while not in use
- Ensure that the floor of your child's playground is made of a shock-absorbing surface
- Avoid falls by:
  - Installing handrails on staircases
  - Using a stool or chair to reach items on high shelves
  - Proper use of walking aids
  - Wear proper footwear

### Why Choose Physical Therapy?

No two brain injuries are the same. Along with various physical effects such as impaired balance and muscle weakness, brain injuries can cause mental fatigue, and alter your mood and cognitive function. Physical therapists can help with brain injuries ranging from mild to severe. Physical therapists can help you become more physically active, which can help improve mental fatigue and mood. Physical therapists are trained to design programs that address many of the effects of brain injuries.



## When is the Right Time for Physical Therapy?

Physical therapy is a very important part of recovering from an acquired brain injury. Typically, individuals begin to see a physical therapist immediately after an injury, but it is also very helpful in years following. Continued treatment by a physical therapist can help maintain or even improve the following effects of acquired brain injury:



- **Improving Strength and Flexibility:** Regular exercise and stretching can help keep your muscles healthy and free from injury.
- **Fatigue:** Physical activity can help you sleep to give you more energy to function throughout the day.
- **Balance:** Specific exercises can help you feel more stable on your feet.
- **Cognitive Function:** Physical activity increases blood flow to the brain to improve attention, memory, and problem solving.
- **Concussion Management:** Gradual return to physical activity can help relieve concussion symptoms.
- **Return to Activities:** Ongoing physical therapy can help you feel healthier and return to your previous routine.
- **Changes in Mood:** Physical activity can boost your mood and decrease symptoms of depression. Physical therapists can also teach various relaxation techniques to help manage stress and decrease irritability.

*\*The symptoms listed are only a few that a physical therapist can help with. Talk to your doctor to see if physical therapy would benefit you!*

### In Partnership With:

This document was created in the hopes of spreading information on how physical therapists can help people affected by acquired brain injury. Students from the School of Physical Therapy have created this document in partnership with the Saskatchewan Physiotherapy Association and the Saskatchewan Brain Injury Association.

