

Have You Experienced a TRAUMATIC BRAIN INJURY?

DISCOVER OPTIONS FOR ENHANCING YOUR MOBILITY, ACHIEVING GREATER INDEPENDENCE, AND IMPROVING YOUR DAILY LIFE.

WHAT IS A TBI? A **TBI** is caused by a trauma to the head that disrupts normal brain functions. If a patient's skull is broken or penetrated by an injury or impact, it's referred to as an open or penetrating TBI. Open TBIs normally have a single, focused area of damage. If a patient's skull is not broken as a result of an impact, it's referred to as a closed TBI. Closed TBIs include concussions, contusions, subdural hematomas, epidural hematomas, and diffuse axonal injuries. All types of TBI, open or closed, can lead to debilitating symptoms, including spasticity.¹

ANNUAL TBI STATISTICS IN US (ESTIMATES)²: **5.3 million people** are currently living with TBI-related disabilities. **80,000 people** are discharged from medical facilities with TBI-related disabilities. Spasticity often occurs after a TBI as a result of damage to the brain stem, cerebellum or mid-brain. This damage affects the reflex centers in the brain, interrupting message flow along different nerve pathways. This disruption can cause changes in muscle tone, movement, sensation and reflex. The location of the TBI may determine which areas of the body are affected and what motor deficits occur.³

COMMON HEALTH ISSUES THAT MAY RESULT FROM SPASTICITY RELATED TO A TBI⁴



SPASTICITY

Often one of the most debilitating effects of a TBI, spasticity complicates daily life by disrupting movement. Symptoms include muscle spasms and increased deep tendon reflexes.⁵



PAIN

Spasms associated with a TBI, as well as injuries sustained in a related accident can cause aches and pains in the muscles and joints.





STIFFNESS

Accidents that result in a TBI can also cause injuries that result in tightness or stiffness of the muscles, which may make daily living more challenging.

WEAKNESS

Weakness, fatigue, and paralysis can lead to problems with balance or coordination, making it difficult to perform daily activities.

YOU'RE NOT ALONE IN THIS AND YOU HAVE OPTIONS.



A Real Patient Experience with Spasticity Related to a TRAUMATIC BRAIN INJURY

DARIN*, 45

BEGINNING DIAGNOSIS

Darin is a 45-year-old man who suffered a traumatic brain injury (TBI) in a car accident. His injuries caused him to develop severe left spastic paralysis.

Darin's spasticity amplified his struggles with impaired mobility, pain, fatigue, and frequent falls. His treatments at this time included PT, OT, ST, and vision therapy. He tried to find relief with oral baclofen therapy, but a memory impairment caused by his TBI made it challenging to follow his medication schedule.

MODIFIED THERAPY RESOLUTION

In 2006, Darin decided to pursue Intrathecal Baclofen (ITB) Therapy to improve his quality of life. He spoke with his doctors, received answers to all his questions, and completed a screening. His test dose produced extremely positive results. Darin was able to walk as he did before his brain injury. It was an easy decision to begin ITB Therapy.

ITB Therapy gave Darin a more enjoyable guality of life with a level of independence that was, at one point, impossible for him. As a long-term ITB Therapy patient, he's benefitted from using different types of pump dosing

and combining ITB with other modalities of rehabilitation, recuperation, and condition management. He lives in his own home with two companion dogs and completes many activities of daily living without assistance. His family lives nearby and provides additional support whenever necessary.

Without ITB, Darin would most likely have been bedbound for the rest of his life. With ITB, he experiences less pain, improved mobility, greater freedom and independence, and a better quality of life.

Talk to your doctor about management options for spasticity related to traumatic brain injuries.

*Patient name has been changed to protect their privacy.

DURCES https://bouve.northeastern.edu/nutraumaticbraininjury/what-is-tbi/types-of-tbi/, Northeastern University Traumatic Brain Injury Resource for Survivors and Caregivers https://www.internationalbrain.org/brain-injury-facts.html, International Brain Injury Association, https://www.brainline.org/article/what-disabilities-can-result-tbi. Brainline.org, Published May 2013 Brain Neurotrauma: Molecular, Neuropsychological, and Rehabilitation Aspects, Section 14.1, Bose, Hou, and Thompson Etiology Patient(s) Questions, Piramal Critical Care, 2018



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