

## NEUROPLASTICITY AFTER TRAUMATIC BRAIN INJURY

A Physical Therapist's Best Ally

Traumatic Brain Injury (TBI) is one of the leading causes of disability in the United States. The CDC estimates that 1.5 million people survive a TBI annually. A TBI can be caused by a bump, blow or jolt to the head or trunk and can range from mild to severe depending on the extent of injury.

The impairments after TBI are typically global and can negatively impact the quality of life of the individuals and families affected. These impairments can be short or long term and vary depending on where the brain was injured. Some of the common impairments after TBI include poor balance, dizziness, difficulty walking, deconditioning, musculoskeletal weakness, increased tone and pain. Fortunately, the brain can adapt and change following injury with task-specific training and repetition. This ability to change and recover following a traumatic brain injury is knowns as neuroplasticity.

Physical therapy takes advantage of the brain's neuroplasticity to address all of these impairments. The goals of physical therapy for TBI are to restore function and enable individuals to return to meaningful activities. Skilled physical therapy treatments are tailored towards the individuals' deficits as no two brain injuries are the same. Research shows that physical therapy following TBI is effective and reduces disability.

## **FYZICAL® SERVICES**

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- Pediatrics OT, PT & SLP
- Orthopedic Rehab
- Occupational & Hand Therapy
- Sports Rehab
- Fitness & Wellness
- Speech Therapy
- Neurological Rehab
- Auto/Work Injuries
- Foot & Ankle Therapy
- Massage & Myofascial Therapy

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