What is a Traumatic Brain Injury (TBI)?

A traumatic brain injury, known as TBI, is a mild to severe injury of the brain. TBI results from a violent blow, shake or jolt to the head or body (such as a fall, auto accident or sports injury). It also can occur when a sharp object penetrates the skull and brain tissue (like battlefield injuries). A mild TBI can resolve within one to three months, but a severe TBI can create lasting disability.

What are the types of TBI?

Most traumatic brain injuries are one of three types: mild, moderate or severe.

**Mild TBI**

Brain cells are damaged temporarily. Therapy may last up to three months, and
most patients recover most or all of their brain function. Mild TBI's are usually treated with over-the-counter pain medications and rest.

**Moderate TBI**

Brain cells suffer significant damage. A wide variety of therapies may be used, such as occupational therapy, physical therapy and speech therapy. Most patients make a full recovery.

**Severe TBI**

Brain cells suffer severe damage, and the patient may enter a coma. Recovery is hard to predict, as the type of therapies needed and their duration depend on the nature of the brain injury, the area that is damaged, if the patient was in a coma and other factors.

A [concussion](#) is the most common form of a mild TBI. Its symptoms can be resolved in a short amount of time, depending on its severity. Repeated concussions, especially if left untreated, can cause significant disability, which may only appear years after the concussions occurred.

Within the three types of TBI's are:

- **Closed-head injuries**: when something causes the brain to move or shake inside the skull but doesn't break through.
- **Penetrating or open head injuries**: when the skull is pierced by a sharp object that enters the brain.

**How long is rehabilitation for a TBI?**

One of the first questions a patient might ask after suffering a TBI is how long it will take to recover. Unfortunately, there is no easy answer as every TBI is unique. A patient may recover from a mild TBI within days, or it might take years of rehabilitation to regain lost skills after a severe TBI. Length of recovery depends on the extent of the injury and the area of the brain that is damaged.
Brain tissue that dies as a result of a traumatic brain injury cannot be restored. But with therapy and rehabilitation, abilities lost to damaged brain cells can be relearned or compensated for by other areas of the brain.

Effective inpatient and outpatient therapy can restore brain function in months to years, depending on the nature of the TBI. The sooner rehabilitation begins, the less likely the patient is to suffer long-term mental and physical impairments.

**Types of TBI therapy**

TBI injuries require specific therapies depending on which part of the brain is damaged. A patient’s individualized brain injury rehabilitation at Good Shepherd Penn Partners usually begins in the hospital and then continues in an inpatient or outpatient setting with multiple therapists of different specialties.

Our goal is to restore patients to their highest potential of function with hands-on therapy and world-class technology. Our Brain Injury Rehabilitation Program is accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF), which recognizes that Good Shepherd Penn Partners meets the highest standards of therapeutic care and quality of services.

**TBI Rehabilitation at Good Shepherd Penn Partners may include:**

**Physical therapy**

Physical therapists help TBI patients move and restore their overall physical function. The objective is to keep the patient safe in their home environment and become independent. The physical therapist may include exercises to improve strength, flexibility, fatigue, breathing problems, balance and coordination, reduce pain and the chance of blood clots, restore walking and help with overall mobility. They may also train the patient to use cane, walker, wheelchair or other equipment to compensate for lost skills.

**Occupational therapy**
An occupational therapist helps the patient relearn everyday skills (Activities of Daily Living) to become independent. The occupational therapist may teach the patient self-care skills like dressing, cooking, brushing their teeth and feeding themselves. Therapy may also include vision assessments or teaching the patient how to transfer from a bed to a wheelchair or a toilet, tub or shower. The occupational therapist also works with the patient to improve strength, balance and complex thinking skills like managing money.

**Speech and language therapy**

A speech and language therapist helps the patient regain their speech, improve communication skills, and, if necessary, learn how to use aids to help them communicate. This may include exercises to strengthen muscles used in speech or swallowing, speech drills to help the patient speak clearly and exercises to help the patient understand what others say.

**Neuropsychology**

A neuropsychologist assesses and treats the patient's thinking, attention, concentration, memory, mood and reasoning skills. They help the patient learn coping strategies and provide psychotherapy if necessary.

**Psychiatric care**

A psychiatrist helps the patient adjust emotionally to their perceived limitations. Talk therapy and medications may help the patient navigate newly-developed anxiety or depression.

The [Traumatic Brain Injury Program](https://www.gspennpartners.org) at Good Shepherd Penn Partners includes care customized for the unique needs of each patient. Care programs include specialized teams of therapists, rehabilitation nurses and physicians trained in the treatment of brain injuries, who work with patients to achieve their recovery goals as quickly as possible.