

Traumatic Brain Injury (TBI) is a common health issue in the military and veteran community. Although falls, motor vehicle accidents and sports injuries are the most common causes, military personnel can be exposed to additional risks from bomb blasts, firearm incidents and other combat and training-related incidents.

A traumatic brain injury (TBI) occurs when a person receives a severe knock to their head, resulting in either confusion and disorientation or a loss of consciousness. The resulting injury can range from mild to severe, depending on the extent of damage to the brain.

Injuries can be either 'closed' or 'open'. In an open head injury the skull is broken or penetrated and the brain tissue underneath is damaged. In closed head injuries, the brain knocks against the inside of the skull causing stretching and tearing of fibers that connect different parts of the brain, as well as bruising and bleeding.

In the military, being exposed to 'blast pressure waves' from an explosive device can be another cause of TBI. Even if the person does not receive a direct knock to the head, the pressure waves from the blast can be powerful enough to shake the skull and cause the brain to move about, causing damage.

What is Moderate to Severe TBI?

The severity of the injury is determined by the length of time the person was unconscious and/or the period of poor memory recall they have following the injury. A TBI is classified as moderate when the person had a loss of consciousness of between 30 minutes and 24 hours and/or a period of poor memory recall of between 1 and 7 days. A severe TBI is diagnosed if the person suffered a loss of consciousness of more than 24 hours and has poor memory recall for more than 7 days. Another way of determining severity is by measuring and monitoring the person's level of consciousness using the Glasgow Coma Scale. A score of 9-12 on the Glasgow Coma Scale is classified as moderate, whilst a score of 8 or below indicates a severe injury.

There are a vast range of symptoms that a person who has sustained a TBI can experience. The pattern of symptoms will depend on which brain areas have been affected and can include a broad range of physical, sensory, cognitive (memory and thinking), behavioural, social, and emotional difficulties. Some problems will appear early in recovery and slowly resolve, whilst others may emerge as recovery progresses.

The recovery process

In most instances, people who sustain a moderate to severe TBI will require hospitalisation until they are fully conscious, aware of their surroundings and medically stable. Complications of TBI such as bleeding in the brain or in the skull cavity, brain swelling, seizures, infection, and breathing problems need to be properly monitored and managed. Once medically stable, discharge from hospital will usually be followed by a period of rehabilitation.

The recovery from a moderate or severe TBI is affected by many factors. As a result, it is difficult at the start to predict the eventual outcome for each person. The severity of the TBI, the specific area of the brain affected, the quality of rehabilitation, pre-existing strengths and weaknesses, and how much support they receive, are some of the factors that influence each person's outcome.

Recovery from moderate to severe TBI can be a lifelong process. Significant improvements can be seen in the first 6 to 12 months after the injury. After that, recovery slows and further improvement is less obvious. Generally speaking, the more severe the injury, the more likely it is that the person will be left with permanent disabilities.

Getting help

The range of problems associated with TBI can be life changing and have a severe impact on the person's ability to engage effectively in activities of daily living, employment, social activities, social relationships, and physical activities. They can also take a toll on family members and others who live with and care for the person. Working with rehabilitation specialists is therefore vital so that the person and their family can be helped to adapt to these changes, and can achieve the best possible outcomes.

The following are important ideas to keep in mind when seeking support:

- Rehabilitation may take many years and the person's needs will change over time.
- A multidisciplinary rehabilitation team is vital and should always include the GP to help manage and coordinate the process. The expertise of medical specialists, physiotherapists, occupational therapists, speech pathologists, vocational counsellors, clinical psychologists, and neuropsychologists may all need to be called on at different times throughout recovery.
- Cognitive, psychological and physical rehabilitation programs should be tailored to the person's individual needs.
- It is important that individuals with TBI work with their rehabilitation specialists to set useful and realistic goals that will bring about positive changes in areas of their life that are important to them.
- Psychiatric problems including anxiety, Posttraumatic Stress Disorder (PTSD), depression, and alcohol and substance abuse disorders are common following TBI, and the ongoing support of a psychologist and/or psychiatrist will be important to help manage these difficulties.
- Adjustment to civilian life following military service can be a difficult and traumatic process even without the added burden of a TBI. Seeking the help of colleagues and friends, as well as strong family support, will be important to assist with this process. Accessing advocacy and assistance through veteran services in the local community may also be beneficial.
- Supported employment and systematic rehabilitation efforts improve the vocational options for TBI survivors.

Self-help strategies

Self-help strategies include getting plenty of rest, minimising stress, eating a balanced diet, avoiding alcohol and other substances, practising relaxation and physical therapy techniques, and avoiding activities that may pose a risk of sustaining another TBI.

Resources

Written materials to assist you and your family are available from websites such as:

- Headway (www.headway.org.uk)
- Brain Injury Australia (www.braininjuryaustralia.org.au)
- Traumatic Brain Injury A to Z (www.traumaticbraininjuryatoz.org)
- Better Health Channel (www.betterhealth.vic.gov.au)

Open Arms - Veterans & Families counselling can be reached 24 hours a day across Australia for crisis support and counselling. Call 1800 011 046.