

Traumatic Brain Injury



Introduction: A traumatic brain injury (TBI) is caused by a blow or jolt to the head or a penetrating head injury that disrupts the normal function of the brain. Not all blows or jolts to the head result in a TBI.

In Service For Caregivers



The severity of a TBI may range from *Mild* to *severe*. Mild TBI occurs when a person has a brief change in mental status or loss of consciousness. The most common type of brain injury, a *concussion*, is classified as a mild traumatic brain injury. Severe TBI may involve loss of consciousness for hours or weeks and can result in permanent disability. Any TBI, whether mild or severe, can result in short or long-term disability.

continued on page 2

What you will learn

After finishing this in-service you will be able to:

Understand causes of TBI,

Know the types of traumas,

Understand the consequences of TBI,

Know rehabilitation of TBI,

Care for brain injury,

Find resources for caregivers of TBI.

Instructions for the Learner

If you are studying the in-service on your own, please:

Read through all the attached materials. You may find it useful to have a highlighting marker nearby as you read. Highlight any information that is new to you or that you feel is especially important.

If you have questions about anything you read, please ask your CDPC Support Coordinator.

- Take the quiz. Think about each statement and select the best answer.
- You will need to pass the quiz with an 80% score.
- Print your name and the date and then sign your name.
- Keep the in-service information for yourself and turn in the quiz page to Consumer Direct Personal Care.

THANK YOU

Traumatic Brain Injury, TBI, *continued from page 1*

In a penetrating injury, a foreign object, (for example a bullet entering the brain), causes damage to specific brain parts. This focal, or localized, damage occurs along the route the object has traveled in the brain. Symptoms vary depending on the part of the brain that is damaged.

A closed head injury results from an external force, like a blow to the head. An example of a closed head injury is a car accident when the head strikes the windshield or dashboard causing damage to the head.

The Center for Disease Control estimates that at least 5.3 million Americans, approximately 2% of the U.S. population, currently have a long-term or lifelong need for help to perform activities of daily living as a result of a TBI. The leading causes of TBI are falls, motor vehicle and traffic accidents, a blow to the head and assaults. Males are twice as likely as females to sustain a TBI.

Disabilities resulting from a TBI depend upon the severity of the injury, the location of the injury, and the age and general health of the individual. Some common disabilities will include problems with thinking, physical changes, personality and behavioral changes. Changes in thinking, or **cognitive changes**, are changes that affect the individual's ability to think or process thoughts, memory recall and retention, and the ability to reason. Some of the symptoms of cognitive changes are shortened attention span, memory problems, partial or complete loss of reading and writing abilities, language problems, communication deficits, loss of vocabulary, and difficulty learning new things. The individual may ask the same question over and over because they cannot remember. At a higher level the individual will have problems with planning, organization, abstract reasoning, problem solving and making judgments.



Physical changes may include deficits in sensory processing, especially with vision. TBI individuals may not be able to register what they are seeing or may be slow to recognize objects that would otherwise be easily identified. Also prevalent are problems in hearing (ringing or roaring in the ears known as tinnitus), touch, taste, and smell.

Continued on page 3 . . .

Traumatic Brain Injury, TBI, *continued from page 2*

Muscle coordination problems may occur including full or partial paralysis, changes in sexual functioning, seizures, problems sleeping and speech difficulties.

Personality and behavioral changes that may accompany a TBI include difficulty with social skills, personality changes, aggression, short temper, acting out, social inappropriateness, depression and anxiety. You may also expect to see the individual withdrawing or isolating. Due to an inability to process information combined with communication deficits the person with TBI will exhibit frustration and anger.

Data from National Institute of Neurological Disorders and Stroke, National Institutes of Health.

Rehabilitation

The goal of rehabilitation is to help the individual live and function as independently as possible. A good rehabilitation plan will be built on an understanding of the neurological diagnosis and prognosis, as well as the relationships between the injury and behavior.

Additionally, the treatment plan for rehabilitation is reviewed and adapted within the context of the individual's personality, goals, resources, family and the community to which the individual will be discharged. Rehabilitation typically follows the initial life saving treatment for sustained injuries.

A rehabilitation team may consist of Neurologists, Occupational, Physical, Speech and Language Therapists, Neuropsychologists and Vocational Rehabilitation experts. The family will play an important part of the team as well. Following rehabilitation, the caregivers' role is to assist the individual with TBI in sustaining the highest level of daily living functions that were attained through rehabilitation.



The most common cognitive impairment among people with severe head injuries is memory loss, characterized by some loss of specific memories and the partial inability to form or store new ones.

This teaching module is the property of **Consumer Direct Personal Care®** and may be copied for use within Consumer Direct Management Solutions. Permission required for copying outside of Consumer Direct Management Solutions.

Caring for A Person With TBI

As a caregiver you may want to do everything for the individual who is under your care. Do not do this at the expense of your own physical and emotional health. The entire family of the individual will be affected by the care needs of a person with TBI. Support is necessary for providing the coverage needed and to allow the primary caregiver breaks from service. The following information will assist Caregivers in caring for TBI individuals:

- Ask questions and use reminders to keep the individual on topic.
- Avoid sarcasm, metaphors, etc., when speaking to the individual.
- Try to provide a consistent daily routine.
- Break down instructions into small steps and repeat directions as needed.
- Decrease distractions when communicating.
- Provide the appropriate supervision to ensure safety.
- Use calendars, clocks and notepads to remind the person of important information.

Remember to remain informed about the condition of the individual for whom you are caring. It is essential to understand the limitations of the individual in order to provide safe and caring services. It is important to maintain a high quality of life in daily activities when caring for the individual. Consult with treatment team members before engaging in activities.

The next page suggests activities that may stimulate TBI individuals.

Continued on page 5 . . .

Coping With Brain Injury

The Brain Injury Association of America provides in-depth and easily accessible information about the personal, medical, and legal aspects of brain injury including:

Your team of service providers and what they do,

Finding support groups, activities and events throughout the U.S.,

Programs and services available in your state,

Facts and information for survivors of all ages and stages of recovery,

Agency that can help you :

Brain Injury Association of
America
<http://www.biausa.org>

Phone: 703-761-0750

Toll-free Infoline
1-800-444-6443



**Good care takes
team work**

The following activities can stimulate TBI individuals while maintaining the highest level of functioning that was attained through rehabilitation:



- Use Audio tapes to stimulate memories of family members on tape.
- Use music and book tapes.
- Arrange events or functions such as eating meals out, visiting the zoo, gardens, museums and malls.
- Videos of old movies or cartoons may bring back familiar feeling and memories.
- Art and crafts projects may include cutting & pasting, finger painting (use color frostings if person is putting fingers in mouth), water colors, pasta art and other creative activities.
- Fragrances and aromas may also spark familiar memories.
- Have the individual pick sunflower seeds out of bird seed mix, sort familiar items such as pasta, buttons, screws, poker chips, stamps, fabric, etc.
- Keeping a box of assorted materials such as plastic flowers, ribbons, shoe laces, and plastic items will occupy the hands and mind.
- Give the individual household chores such as laundry, digging outdoors, setting the table, or cleaning out a drawer.
- Food preparation can be a rewarding experience. Ask for assistance in squeezing fruit, peeling food, baking simple recipes such as cookies, etc.
- Using play dough or clay substances will also stimulate the body and mind.

Engage the individual in memory activities such as:

- Viewing or putting together photo albums.
- Look at books or magazines with pictures.
- Listen to their favorite music and singing may bring back familiar and comforting memories.
- Memory boxes containing personal objects with which the individual is well acquainted such as ties, collectibles, dolls, shoes, jewelry, post cards, music boxes, record album covers and other 'treasures' that the individual has saved.



Provide intellectual stimulation through:

- reading stories, newspapers, books and poems.
- Play simple card games or checkers.



Sometimes we treat caregiving like a 100 metre sprint when we should treat it like a long distance run. We need to sustain ourselves for the long haul.

Rita Myers, Tapestry House
Ottawa

Continued on page 6 . . .

Caring for A Person with TBI, *continued from page 5*

- Encourage writing notes to stay in touch with old friends.
- Watching TV specials or documentaries may stimulate brain processing functions.

Try the following for physical stimulation:

- Aerobic exercises, walking, marching or dancing to music.
- Play ball with a soft object such as a nerf or beach ball; play catch, kicking, throwing into basket.
- Depending on the individual's level of tolerance, bowling can be a fun physical activity.



If Range of Motion, (ROM), activities have been recommended by a physical therapist or physician the following are light exercises that can be performed with caregiver assistance.



CAUTION: perform range of motion exercises **ONLY** if approved and authorized by treatment team and Case Managers. Move the head, arms and legs to music either from standing or sitting position. Engage client in activities which encourage ROM.

REMEMBER: *Caregiving for a TBI individual can be stressful for the caregiver. Because of the nature of the required care, caregivers can become emotionally and physically exhausted. Please ask CDPC for literature on handling stressors and taking care of yourself.*



If you work with a person with TBI please read our continued education module about Taking Care of Yourself.

Other Resources for Families of Traumatic Brain Injured Individuals

Brain Injury Association of America, Inc.
1608 Spring Hill Road, Suite 110
Vienna, VA 22182
<http://www.biausa.org>
Tel: 800.444.6443

Brain Trauma Foundation
523 East 72nd Street, 8th flr.
New York, NY 10021
<http://www.braintrauma.org>
Tel: 212.772.0608

National Caregiver Alliance / National Center on Caregiving
180 Montgomery Street, Suite 1100
San Francisco, CA 94104
<http://www.caregiver.org>
Tel: 800.445.8106