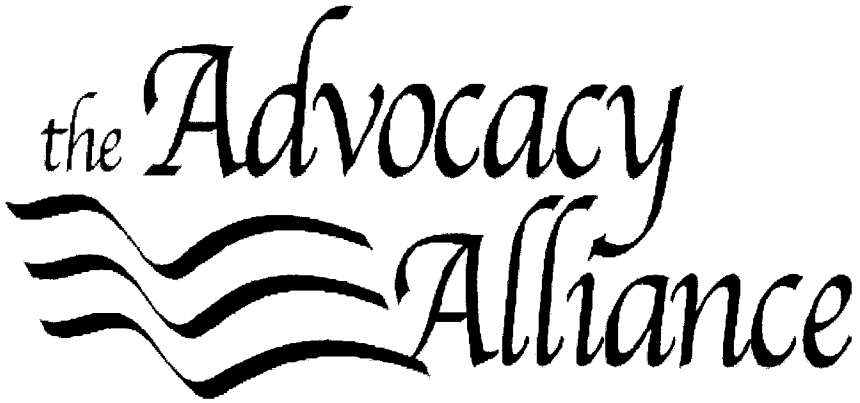
Traumatic Brain Injury



Health Care Quality Units

Disclaimer

- The information presented to you today is intended to increase your awareness.
- This information is not intended to replace medical advice.
- If you are in need of medical advice, please contact your physician.

Objectives

The participant will learn:

- Definition of Traumatic Brain Injury
- Fast facts and statistics
- Causes of Traumatic Brain Injuries
- Classification
- Symptoms
- Diagnostic tools
- Treatment
- Complications
- Caregiver strategies

Definition of Traumatic Brain Injury

- Traumatic Brain Injury can happen when a sudden, violent blow to the head results in damage to the brain.
- Traumatic Brain Injury is one of the leading causes of death and disability in the United States.
- Anyone who receives a head injury, however mild, should seek medical attention.

Fast Facts and Statistics

- An estimated 2.8 million people sustain a Traumatic Brain Injury annually.
- Rates of Emergency Room (ER) visits related to Traumatic Brain Injury were highest for adults 75 years and older and children 0-4 years of age.
- Motor vehicle accidents were the leading cause of Traumatic Brain Injury hospitalizations for adolescents and adults ages 15-44.

Causes of Traumatic Brain Injury

- Falls
- Being struck by or against an object
- Motor vehicle accidents
- Airway obstruction
- Near drowning, choking or strangulation
- Electrical shock or lightning strike
- Heart attack, stroke or aneurysm
- Meningitis, insect carried diseases, seizure disorders and toxic exposure

Classification of Traumatic Brain Injury

- Mild head injury: There is minimal injury to the head and no loss of consciousness.
- Moderate head injury: There may be more obvious injury to the head with a brief loss of consciousness.
- Severe head injury: There is serious injury to the head and the person is unconscious or unresponsive.

Symptoms of Traumatic Brain Injury

Symptoms of Moderate or Severe Traumatic brain injury:

- Headache that gets worse or will not go away
- Repeated nausea and vomiting
- Slurred speech
- Convulsions or seizures
- An inability to wake up from sleep
- Enlarged pupils
- Loss of coordination
- Loss of consciousness for a few minutes to hours

Diagnostic Tools for Traumatic Brain Injury

- Computerized Tomography or CT scan: using x-rays to look for bleeding, bruised tissue and other damage to the brain.
- Magnetic Resonance Imaging or MRI: Using magnets and radio waves to look for bleeding, bruising or other damage. MRI gives a more detailed picture than CT scan.
- Intracranial Pressure (ICP) monitoring : using a probe inside the brain to assess for increased levels of cerebral spinal fluid. In addition, fluid puts pressure on the brain and can cause damage.

Diagnostic Tools for Traumatic Brain Injury

- Glasgow Coma Scale: a tool used to measure and score a person's functioning in three areas:
    - Ability to speak
    - Ability to talk
    - Ability to move
- A health care provider rates the scores:
    - 0-3 Comatose
    - 3-8 Severe injury
    - 9-12 Moderate injury
    - 13-15 Mild Injury

Treatments for Traumatic Brain Injury

- Psychological counseling: Helps to manage emotional well being and coping skills.
- Occupational therapy: Assists with activities of daily living.
- Physical therapy: Assists with physical mobility and function.
- Speech therapy: Assists with swallowing and speech deficits.
- Cognitive therapy: Assists with memory and thinking deficits.
- Counseling with a social worker: Assists with information about additional resources.
- Counseling with a vocational counselor: Assists in employment and work skills.

Complications of Traumatic Brain Injury

- Sensory
  - blurred vision
  - sound/light sensitivity
  - balance difficulties
- Energy level
  - loss of consciousness
  - daytime sleepiness
  - insomnia
- Mental processing
  - shortened attention
  - memory loss
  - altered thinking
- Behavior and mood
  - depression/anxiety
  - irritability/impulsive
  - loss of motivation

Complications of Traumatic Brain Injuries

- Fevers/Infections: especially in the lungs (pneumonia) and bladder.
- Blood clots: (deep vein thrombosis-DVT) DVT involves clots that form in the legs, arms and these clots can move to other areas of the body including the brain, heart and lungs, causing damage.
- Seizures: a risk of seizures increases with the severity of the injury.
- Spasticity: muscles become tight and cannot fully relax, causing pain and difficulty using that muscle.

Caregiver Strategies

- Describe what you are going to do before you do it.
- Speak slowly and allow time for the individual to respond.
- Allow the individual to search for the word(s) he or she wants to say before interrupting them.
- Avoid talking to the individual as if he or she were a child.
- Present one idea or request at a time.
- Remember that you may need to repeat things often.

Caregiver Strategies

- Ask questions that require a simple "yes" or "no" answer, especially in early recovery.
- Don't give long explanations or argue with the individual.
- Develop a consistent daily schedule, have it posted and refer to it often.
- Present 1 or 2 food or drink items at a time.
- Limit distractions (turn off the radio or TV) when speaking with the individual.
- Remember he/she may tire easily, even without much physical activity.

Caregiver Strategies

- Utilize a timer to provide prompts when a task needs to be completed.
- Be aware of anything that promotes frustration, agitation or anger.
- Encourage the individual to stop and think or to count to three before speaking or acting when frustrated.
- Expect inconsistency throughout the recovery process. Celebrate the "good" days. Accept the "bad" days.
- Encourage all therapy sessions. Therapy is vital to recovery.

In Summary

- Traumatic brain injury is a major cause of death and disability in the United States. Those who survive a traumatic brain injury can face effects that last a few days, or for some, the rest of their lives.

- Traumatic brain injuries are highly individualized and will not only effect the individual, but have lasting effects on families and communities.

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the Advocacy Alliance

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