Mild Traumatic Brain Injury

MTBI Facts
- 1.7 million people suffer a TBI each year in the U.S., of these, between 75% and 90% are categorized as MTBI.
- MTBs cost the nation nearly $17 billion each year.
- Research indicates that up to 15% of patients diagnosed with MTBI may have persistent, disabling problems.

Defining MTBI
The occurrence of injury to the head arising from blunt trauma or acceleration or deceleration forces involving any one of the following:
- Any period of loss of consciousness.
- Any loss of memory for events immediately before or after an accident.
- Any alteration in mental state at the time of the accident.
- Focal neurological deficits that may or may not be temporary.

Severity of injury does not exceed:
- Loss of consciousness of more than 30 minutes.
- Initial Glasgow Coma Scale of 13-15.
- Post-traumatic amnesia longer than 24 hours.

Symptoms Following a MTBI
- Dizziness
- Vertigo
- Musculoskeletal complaints
- Post-traumatic headaches
- Balance and spatial disorientation
- Visual disturbances
- Altered taste and smell
- Hearing changes
- Fatigue
- Sensitivity to light
- Decreased attention and concentration
- Reading and auditory comprehension problems
- Increased irritability
- Depression and anxiety
- Sleep disturbances

What Happens Inside the Head After an MTBI?
A series of biochemical and physiological events occur following an MTBI, which can include the following:
- A breakage of the neuronal membrane by the injury.
- A decrease in cerebral blood flow to neurons.
- An increased demand for glucose, which is not present in sufficient amounts to maintain neuronal stability.
- A deficient blood supply combined with deficient oxygen supply, which leads to a metabolic disturbance.
- An immediate release of excitatory neurotransmitters causing neurons to fire repeatedly until they die.
- These cumulative events impact neurons that are distant from the injury site for many weeks or months.

Early Treatment is Essential for Maximum Recovery
- Early intervention can provide significant benefits in rate of recovery, cost per unit of recovery, care requirements and reduction of lifetime costs.

- Evidence exists that early rehabilitation interventions following brain injury are less expensive and more time efficient when compared to rehabilitation that is delayed.

Potential Complications Following MTBI
- Tendency for re-injury
- Depression and anxiety
- Avoidance of activities
- Isolation
- Client and family stress
- Suicidal ideations and attempts
- Functional difficulties at work and home
- Delays in recovery
- Chronic disability
- Long-term costs
- Problems with the law and/or litigation

References


