What is TBI?

Traumatic Brain Injury (TBI), also called acquired brain injury or simply head injury, occurs when a sudden trauma causes damage to the brain. TBI can result when the head suddenly and violently hits an object, or when an object pierces the skull and enters the brain tissue, or in the case of war, being within the blast area of an explosion.

What are the Symptoms of TBI?

Symptoms of TBI can be:

- Mild - headaches, confusion, lightheadedness, dizziness, blurred vision or tired eyes, ringing in the ears, bad taste in the mouth, fatigue or lethargy, a change in sleep patterns, behavioral or mood changes, and trouble with memory, concentration, attention, or thinking. A person with mild TBI may remain conscious or may experience a loss of consciousness for a few seconds or minutes.
- Moderate or Severe (depends on the extent of the damage to the brain) - A person with a moderate or severe TBI may show the same symptoms as a person with mild TBI, but may also have a headache that gets worse or does not go away, repeated vomiting or nausea, convulsions or seizures, an inability to awaken from sleep, dilation of one or both pupils in the eyes, slurred speech, weakness or numbness in the extremities, loss of coordination, and increased confusion, restlessness, or agitation.

Treatments for TBI

- Mild to moderate TBI should receive skull and neck X-rays for bone fractures or spinal instability
- Moderate or severe TBI should receive medical attention as soon as possible because little can be done to reverse the initial brain damage caused by trauma. Primary concerns include: insuring proper oxygen supply to the brain and the rest of the body, maintaining adequate blood flow, and controlling blood pressure.
- Moderately to severely injured patients receive rehabilitation that involves individually tailored treatment programs in the areas of physical therapy, occupational therapy, speech/language therapy, physiatrist (physical medicine), psychology/psychiatry, and social support.

What is the prognosis?

Approximately half of severely head-injured patients will need surgery to remove or repair hematomas (ruptured blood vessels) or contusions (bruised brain tissues).
What disabilities will result from these injuries?

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 are:

- Problems with cognition (thinking, memory, and reasoning).
- Sensory processing (sight, hearing, touch, taste, and smell).
- Communication (expression and understanding).
- Behavior or mental health (depression, anxiety, personality changes, aggression, acting out, and social inappropriateness).

More serious head injuries may result in:

- **Stupor**: an unresponsive state, but one in which an individual can be aroused briefly by a strong stimulus, such as sharp pain.
- **Coma**: a state in which an individual is totally unconscious, unresponsive, unaware, and unable to be aroused.
- **Vegetative State**: where an individual is unconscious and unaware of his or her surroundings, but continues to have a sleep-wake cycle and periods of alertness.
- **Persistent vegetative state (PVS)**: an individual stays in a vegetative state for more than a month.