

Presented by Sullivan and Associates, LLC

# TRAUMATIC BRAIN INJURY SEMINAR

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# Introduction

Participants will understand, from a medical perspective, what a traumatic brain injury is and apply this understanding in the context of investigation, discovery and trial preparation for claims involving such injuries.



# Participants will demonstrate their knowledge by:

- Understanding the definition of traumatic brain injury
- Identifying and distinguishing a genuine traumatic brain injury from unrelated pre-existing conditions
- Identifying the role and use of discovery in evaluating traumatic brain injuries
- Identifying and utilizing expert retention in evaluating traumatic brain injuries
- Utilizing two different case studies based on claims ripening into litigation involving closed head injuries

# TBI Claims in the US are on the Rise and have been for the past decade

- An estimated 1.5 to 2 million head injuries occur every year in the United States, with some 250,000 of those injured being admitted to the hospital. Traumatic brain injury results in approximately 60,000 deaths annually, and causes permanent neurological disabilities to an additional 70,000 to 90,000 people.
- In 2001, the rate of TBI related ER visits, hospitalizations and deaths was 521.0 per 100,000.
- By 2010, that rate had increased to 823.7 per 100,000.
- While deaths and hospitalizations have remained relatively stable, ER visits have increased from 420.6 per 100,000 in 2001 to 715.7 per 100,000 in 2010 – representing a 70.1% increase in TBI related hospital visits.

# NFL Litigation

- Class action of over 4,500 former players.
- Players sued for neurocognitive injuries, including players who are healthy today, but who may develop symptoms in the future.
- The original settlement, with a \$675 million cap on damages was rejected by the Judge.
- Approved settlement in July, 2014
  - No cap on player claims for neurological damages
  - \$75 million for baseline testing
  - \$10 million for education
  - Different payouts for different neurological issues and age/illness
    - Young with ALS - \$5 million
    - Middle aged with Alzheimer's - \$1.6 million
    - Older with early dementia - \$25,000.00
- Total expected payout of \$870 million



Medicine Behind a TBI – I'm  
not a Doctor, but I Play One  
in the Office

# Understanding Basic Brain Anatomy

It is crucial to understand the parts of the brain and their functions



## Frontal Lobe

- Frontal lobes are responsible for planning, organizing, problem solving, attention, personality and behavior/emotions.
- Injuries to the frontal lobe are common in front-head trauma: MVA's, forward falls and contact to the front of the skull.
- Injuries to the frontal lobe can result in changes to personality and social behavior, mood changes, expression of language, inability to focus and inability to formulate and execute movements necessary to complete everyday tasks.

## Parietal Lobe

- Parietal lobes are responsible for control of sensations – touch, pressure, weight, size and shape.
- Injuries to this area result in a decrease in fine motor skills and difficulty with hand-eye coordination.
- Injuries can result in difficulty focusing visually, word choice and solving mathematical problems.



媿 Temporal lobes are responsible for sorting information, short term memory and distinguishing between different sounds and smells..

媿 Injuries to this area result in memory loss (short and long term), difficulty understanding/processing spoken words, inability to characterize objects and can result in aggressive behavior.

## Temporal Lobe



## Occipital Lobe

媿 Occipital lobes are responsible for processing visual information.

媿 Injuries to the occipital lobe result in vision defects (sometimes permanent ), peripheral vision issues, difficulty recognizing words, colors and objects.

媿 The cerebellum is responsible for fine motor control.

媿 Injuries to the cerebellum result in an inability to walk and coordinate fine movements and can result in dizziness and slurred speech.



Cerebellum

Brainstem

媿 The brainstem is responsible for nerve connections and is continuous with the spinal cord.

媿 Regulates heart rate, breathing, alertness and consciousness.

媿 Injuries to this area can result in dizziness, sleep issues, nausea, balance issues, dysphasia and coma.

# Types of Traumatic Brain Injuries

# Open-Head Injuries

- Skull fracture with damage to the brain tissue or membrane.
- Most commonly the result of MVA's and workplace injuries.
- Occurs when a blunt object strikes the skull with moderate to high force, resulting in skull fracture.

**Linear** - crack in the skull with no penetration of the brain.

Make up the majority of open-head injuries.

Usually minor and do not require extensive treatment.

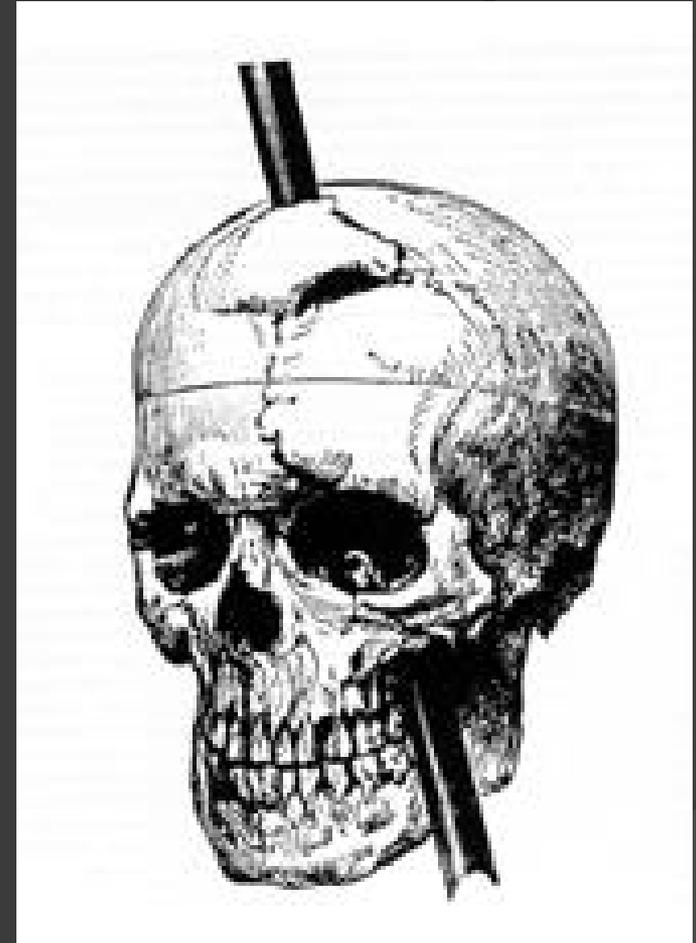
**Depressed** - depressed fracture from a severe blow with broken skull fragments that penetrate or compress the brain.

Can cause severe brain damage

**Diastic** - almost always occur in newborns/infants and occur when unfused portions of the skull are caused to widen by an outside force.

**Basilar** – fractures at the base of the skull.

Can cause tears in the brain membrane and leakage of cerebrospinal fluid.



# Closed-Head Injuries

媿 No penetration of the skull.

媿 Common in MVA's, falls, bicycle accidents and sports related injuries.

媿 Concussion, brain contusion, diffuse axonal (deceleration) injuries and hematomas.

媿 **Deceleration** – diffuse injuries from rapid acceleration or deceleration of the skull.

媿 Head collides with an object - in MVA, with steering wheel or airbag.

媿 Whiplash injuries.

媿 Tissue slides over other tissue resulting in injury to nerve that allows neuron to communicate.

媿 **Concussion** – any head injury that temporarily affects normal brain functions.

媿 Symptoms - dizziness, headache, nausea, ringing in the ears, slurred speech, vomiting, mood swings, sensitivity to light and sleep disturbances.

媿 Medical records will usually contain a diagnosis.

媿 **Brain Contusion** – bruises of brain tissue, generally more localized than a more diffuse concussion.

媿 Minor – few symptoms and little damage to the brain.

媿 Severe – Unconsciousness and confusion upon waking up, swelling of brain can result causing more damage and memory loss, emotional disturbances, motor coordination, loss of ability to understand or express speech.

媿 **Hematomas** – brain forced against the inside of the skull resulting in pooling of blood that cannot drain fast enough, compressing brain tissue.

媿 Subdural – rupture of vein between brain and surrounding membrane (dura).

媿 Epidural – rupture between the dura and the skull.

媿 Intraparenchymal – blood within the brain tissue.



## Case Study #1

# The Mad Bike Messenger of Beacon Hill

1. Facts of the Accident
  - A. Bicyclist/Single Car Accident
  - B. Stripped Down Bike – No Brakes
  - C. Messenger “Devil Take Care” Mentality
  - D. No Helmet
  - E. Head Over Handlebars
2. No Protective Equipment Worn by Plaintiff



## Case Study #2

# The Fainter or Faker

1. Facts of the Accident
  - A. Low speed rear-end accident
  - B. Minimal damage
  - C. Seatbelt engaged
  - D. No loss of consciousness



**CONCLUSION**

Traumatic Brain Injury cases can be difficult, but not impossible to defend. The primary concern is to weed out the fraudulent cases from the genuine ones (which can be complicated). A thorough understanding of TBI's causes and effects will then allow for a careful evaluation and determination of which cases should be settled and which should be litigated to trial.

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