Evaluating the Invisible Injury Case:
Traumatic Brain Injuries and Psychological Injuries

Todd H. Ramsey, Dallas
Payne Mitchell Law Group

State Bar of Texas
34th Annual
Advanced Personal Injury Law

CHAPTER #22

TABLE OF CONTENTS

EVALUATING THE INVISIBLE INJURY CASE:
TRAUMATIC BRAIN INJURIES AND PSYCHOLOGICAL INJURIES

Injuries to the brain are some of the most severe injuries our clients can sustain. The purpose of this paper is to provide information regarding the current state of science in assessing traumatic brain injuries and psychological injuries in a format helpful to personal injury lawyers.

I. The Brain

To understand the effects of brain injuries we first must understand the parts that make up the human brain.

a. Brain Parts

i. Brain Stem

The brain stem is located in the back part of the brain and extends from the top of the spine to the center part of the brain. It is responsible for the motor skills and sensations to the face and neck and includes nerves affecting motor, fine touch, vibration sensation, pain, temperature, itch, and crude touch. It also regulates the central nervous system, helps maintain consciousness, regulates the sleep cycle, and participates in regulating cardiac and respiratory function. Damage to the brain stem can cause abnormalities in the function of cranial nerves that may lead to visual disturbances, pupil abnormalities, changes in sensation, muscle weakness, hearing problems, vertigo, swallowing and speech difficulty, voice change, and coordination problems. https://en.wikipedia.org/wiki/Brainstem

ii. The Cerebellum

The cerebellum is located in the back-bottom part of the brain. The cerebellum participates in motor control, attention, language, and regulating fear and pleasure responses. It is responsible for coordinating responses from the rest of the parts of the brain to sensory systems within the human body. When the cerebellum receives damage it produces disorders in fine movement, equilibrium, posture, and motor learning. https://en.wikipedia.org/wiki/Cerebellum

iii. The Occipital Lobe

The occipital lobe is located above the cerebellum in the back most part of the brain. The occipital lobe is known as the visual processing center of the brain. Damage to the occipital lobe can manifest itself in a number of ways: “field cuts” in the vision of the eye corresponding to the damage to the occipital lobe, visual hallucinations, color agnosia, movement agnosia, agraphia, and blindness. https://en.wikipedia.org/wiki/Occipital_lobe

iv. Parietal Lobe

The parietal lobe is located above the occipital lobe and behind the frontal lobe in the back-top portion of the brain. It integrates sensory information among the various sensory modalities of the brain including spatial sense and navigation, the sense of touch, and the visual system. Touch, temperature, and pain also relate to the parietal lobe. This part of the brain also plays an important role in language processing. Damage to this lobe can result in a loss of imagery, visualizations of spatial relationships, and neglect of the space and side of the body opposite to the area of damage to the parietal lobe. Damage can also cause problems in mathematics, reading, writing, and understanding symbols. https://en.wikipedia.org/wiki/Parietal_lobe

v. Temporal Lobe

The temporal lobe is located beneath the temples on both sides of the head. This part of the brain is involved in processing sensory inputs into meanings appropriate for the retention of visual memory, language comprehension, and emotional association. Damage to this portion of the brain can cause difficulty in recalling visual stimuli. For example, a common symptom of such damage would be impairment in the identification of familiar objects and familiar faces. Schizophrenia and epilepsy are two disorders commonly associated with deficits in the temporal lobe. https://en.wikipedia.org/wiki/Temporal_lobe

vi. Frontal Lobe

The frontal lobe, as the name implies, is located in the front of the brain. This part of the brain is associated with reward, attention, short-term memory task, planning, and motivation. The frontal lobe plays a large role in voluntary movement and regulates activities such as walking. It also involves the ability to project future consequences resulting from current actions, conscience, the override and suppression of socially unacceptable responses, and the determination of similarities and differences between things or events. Damage to this portion of the brain can be expressed in a variety of ways. A person with frontal lobe damage may not express emotions that are being felt through their face or voice or may exhibit excessive, unwarranted displays of emotion. Depression and a loss or decrease in motivation is also common. Damage to the frontal lobe can cause a change in behavior and personality as well as a decrease in executive functions such as planning for the future, judgment, decision-making skills, attention span, and inhibition. Due to its location in the brain, the frontal lobe is extremely vulnerable to injury. https://en.wikipedia.org/wiki/Frontal_lobe

II. What is a Traumatic Brain Injury

a. The Two Basic Categories

There are 2 basic categories of brain injuries: (1) ones with obvious evidence of an intracranial injury and (2) those without such evidence.

i. Obvious Intracranial Injuries

These are the types of brain injuries that require no more investigation than a review of the relevant medical records. Evidence of an obvious intracranial injury would be pathology within the brain itself as well as areas of bleeding around the brain but not within the skull.

Although contusions and hematomas found outside the skull are not considered an intracranial injury they can be useful in showing the force and direction of the trauma to the head which causes an intracranial injury. Hemorrhages in the brain often fall along the lines separating gray and white matter within the brain. This is because these areas of the brain are different densities and, when a force strikes the head, the unequal movement between the white and gray matter causes damage at their junction. Tearing of blood vessels in the brain can cause brain tissue to become compressed by the bleeding and thereby be damaged.

ii. Intracranial Injuries Without Obvious Evidence

Understanding brain injuries without obvious evidence and ensuring they are properly diagnosed and treated is essential. You can't simply rely on your client's medical practitioners to provide the care needed to achieve full justice for your client in the courtroom. Armed with knowledge, plaintiff's lawyers should take proactive measures to ensure their clients get properly evaluated and treated for TBIs. These types of brain injuries are often undiagnosed during routine medical examinations but can severely impact the quality of life of your clients.

b. Symptoms of a Traumatic Brain Injury

Mild traumatic brain injuries can cause a wide-ranging array of physical and psychological effects. Further, the symptoms may appear immediately or take days to weeks to manifest themselves.

Physical symptoms may include:

- loss of consciousness
- a state of being dazed, confused or disoriented
- headache
- nausea or vomiting
- fatigue or drowsiness
- problems with speech
- difficulty sleeping
- sleeping more than usual
- loss of balance
- convulsions or seizures
- dilation of one or both pupils
- clear fluids draining from the nose or ears

- inability to awaken from sleep
- weakness or numbness in the fingers and toes
- loss of coordination

Sensory symptoms may include:
- blurred vision
- ringing in the ears
- a bad taste in the mouth
- changes in the ability to smell
- sensitivity to light and sound

Cognitive or mental symptoms may include:
- memory or concentration problems
- mood changes or mood swings
- feeling depressed or anxious
- profound confusion
- agitation, combativeness, or other unusual behavior
- slurred speech
- coma

In infants and young children symptoms commonly manifest themselves as:
- change in eating or nursing habits
- unusual or uneasy irritability
- persistent crying and inability to be consoled
- change in ability to pay attention
- change in sleep habits
- seizures
- Saturn depressed mood
- Drowsiness
- loss of interest in favorite toys or activities

Mayo Clinic, *Traumatic Brain Injury: Symptoms and Causes*: https://www.mayoclinic.org/diseases-conditions/traumatic-brain-injury/symptoms-causes/syc-20378557

c. Causes of Traumatic Brain Injuries

Traumatic brain injuries are usually caused by a jolt, blow or acceleration/deceleration to the head, body or brain. Pay special attention when evaluating cases involving falls, motor vehicle collisions, gunshot wounds, domestic violence, sports injuries, or explosive blasts. Older adults and young children are especially susceptible to the brain injuries. Mayo Clinic, *Traumatic Brain Injury: Symptoms and Causes*: https://www.mayoclinic.org/diseases-conditions/traumatic-brain-injury/symptoms-causes/syc-20378557

d. Diagnosing and Testing for Traumatic Brain Injuries

Common tests such as MRIs and x-rays run in emergency rooms to diagnose head trauma often only capture obvious brain injuries. Without a proper medical evaluation, brain injuries can go undiscovered.

A neurological examination administered by a qualified neurologist can be used to properly document loss of consciousness, amnesia/confusion, and the other common symptoms of a traumatic brain injury. A neurologist can also make a referral out to a neuropsychological or neuroradiological expert for further evaluation.

A neuropsychologist can be used to evaluate and measure neurological dysfunction. Neuropsychologists can administer a battery of standardized test aimed at uncovering cognitive deficits and abnormal behavior correlated to the areas of the brain that control the related functions of any noted abnormalities. These tests include measuring memory, complex or sequence tasks, IQ, reasoning, emotional response, vision, and other brain functions.

Far more advanced neuroimaging techniques are available than x-ray, CT scans, and MRIs in diagnosing traumatic brain injuries. CT scans cannot reliably show specific deficits related to regional damage within the brain

and MRIs are not reliable to detect microscopic sheer injuries or metabolic dysfunction in the brain. Scans available to neuroradiologist include the following.

i. Fluid Attenuated Inversion Recovery (FLAIR) is an MRI with an inversion recovery set to null fluids. It can be used to study central nervous system disorders such as stroke, subarachnoid hemorrhage, and head trauma. https://en.wikipedia.org/wiki/Fluid-attenuated_inversion_recovery

ii. Diffusion Tensor Imaging (DTI) is useful because it can show injuries where conventional MRI would show none. A DTI works by mapping and characterizing the three-dimensional diffusion of water as a function of spatial location. This reveals estimates of white matter connectivity patterns in the brain which can be used to diagnose an injury. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2041910/

iii. Single Photon Emission Tomography (SPECT) is an imaging technique that uses gamma rays to provide 3D information about the structure of the brain. A gamma-emitting radioisotope is injected into the bloodstream which binds to certain types of tissues in the body which is then imaged by a gamma camera. Because blood flow in the brain is correlated to local brain metabolism and energy use SPECT can be used to assess brain metabolism regionally, in an attempt to diagnose and differentiate the different causal pathologies. https://en.wikipedia.org/wiki/Single-photon_emission_computed_tomography

iv. Positron Emission Tomography (PET) is a nuclear medicine functional imaging technique that is used to observe metabolic processes in the body as an aid to the diagnosis of disease. Similar to SPECT it detects gamma rays emitted by tracer injected into the body. It can be used to map normal brain function and diagnose brain disease by revealing portions of the brain which are not receiving as much blood flow and thus are having less activity. https://en.wikipedia.org/wiki/Positron_emission_tomography

v. NeuroQuant® is a software-based method of analyzing MRI data that compares scans of healthy brain tissue to that of the patient to evaluate loss of tissue. https://www.mycdi.com/knowledge_center/the_mri_experience/neuroquant/

e. Brain Injury Treatment

i. Medications

Medications to treat brain injuries fall into 3 main groups: diuretics, antiseizure drugs, and coma-inducing drugs. Diuretics work to reduce the pressure inside the brain by reducing the amount of fluid in tissues and increasing urine output. Victims of traumatic brain injuries are often prone to have seizures following their injury. Antiseizure medications are used to avoid additional brain damage that might be caused by a seizure. Coma-inducing drugs are used because a comatose brain needs less oxygen to function. If blood vessels in the brain are compressed they are unable to supply brain cells with sufficient amounts of nutrients and oxygen. https://www.mayoclinic.org/diseases-conditions/traumatic-brain-injury/diagnosis-treatment/drc-20378561

ii. Surgery

Surgical options are also available as a treatment for major head trauma. When head trauma causes tearing of blood vessels surrounding the brain the bleeding can compress brain tissue and cause neurological damage and/or death. An emergency decompression is then necessary to avoid further damage.

A ventriculostomy catheter is one approach used to alleviate intracranial pressure. In this procedure, a hole is drilled directly into the patient's skull and a catheter is inserted to allow fluid to escape.

Another such procedure is craniotomy, which allows blood to be suctioned from an area surrounding the brain. This procedure is performed by first drilling three holes into the skull and making cuts between them with a saw. This is called a bone flap. Once the bone flap is removed blood is suctioned off the brain.

iii. Cognitive Therapy

Cognitive therapy is used to help restore memory, attention, social behavior, safety, judgment, and planning to victims of traumatic brain injury. Cognitive therapy uses a wide variety of treatments to address the various types of cognitive problems in individuals with a brain injury. Cognitive therapy can be broken down into two broad approaches: (1) restorative treatment, whose goal is to restore function to pre-injury levels, and (2) compensatory treatment, which uses solutions to specific problems such as using memory notebooks or learning coping strategies. Cognitive therapy is not limited to any one specific medical discipline and can include treatment from speech pathologists, occupational therapists, neuropsychologists, psychiatrists, and vocational rehabilitation counselors. https://www.brainline.org/article/what-about-cognitive-rehabilitation-therapy

iv. Physical Therapy

Physical therapy can provide individualized treatment goals to help the victim of a traumatic brain injury to address their functional limitations. The goal of physical therapy changes depending on the mental state of the patient. Physical therapists can help patients in a vegetative state with proper posture, positioning, and flexibility as well as reduce the likelihood of problems such as bedsores. For patients in a minimally conscious state, physical therapists help with stretching, positioning, and equipment use while working with the individual to increase consistent responses to commands for movement and communication. For fully alert patients, physical therapists help improve the ability to maintain alertness and follow commands, muscle and joint flexibility, the ability to move around in bed, the ability to balance safely while walking, and practice functional activities. They can help the patient return to normal activities or master equipment such as a walker or a wheelchair.

v. Vestibular Therapy

Vestibular therapy addresses damage to the areas of the brain which regulate the ability to balance. Symptoms of such damage can include dizziness, decreased balance, proprioception problems, vision changes, vertigo, and hearing changes. The purpose of vestibular therapy is to retrain the brain to recognize signals from the vestibular system and work collaboratively with vision and proprioception. https://www.rainbowrehab.com/balance-after-brain-injury-vestibular-system-disorders-anatomy-assessment-and-treatment/

III. Posttraumatic Stress Disorder

Scientific advances have revealed that chronic posttraumatic stress disorder is basically an injury to the brain. Imaging techniques show that patients with chronic PTSD have gray matter structural changes in specific areas of the brain. However, imaging alone is insufficient to properly assess posttraumatic stress disorder in the context of a traumatic brain injury claim. It is important to talk to your clients and obtain a detailed personal history to understand their baseline prior to the injury as well as the onset and nature of personality changes after the injury.

The specific medical criteria for a PTSD diagnosis can be found in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). A brief summary of the diagnostic criteria is as follows:

- Criterion A (one required): The person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, in the following way(s):
    - Direct exposure
    - Witnessing the trauma
    - Learning that a relative or close friend was exposed to a trauma
    - Indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics)
- Criterion B (one required): The traumatic event is persistently re-experienced, in the following way(s):
    - Unwanted upsetting memories
    - Nightmares
    - Flashbacks
    - Emotional distress after exposure to traumatic reminders
    - Physical reactivity after exposure to traumatic reminders
- Criterion C (one required): Avoidance of trauma-related stimuli after the trauma, in the following way(s):
    - Trauma-related thoughts or feelings
    - Trauma-related reminders
- Criterion D (two required): Negative thoughts or feelings that began or worsened after the trauma, in the following way(s):

    - Inability to recall key features of the trauma
    - Overly negative thoughts and assumptions about oneself or the world
    - Exaggerated blame of self or others for causing the trauma
    - Negative affect
    - Decreased interest in activities
    - Feeling isolated
    - Difficulty experiencing positive affect
- Criterion E (two required): Trauma-related arousal and reactivity that began or worsened after the trauma, in the following way(s):
    - Irritability or aggression
    - Risky or destructive behavior
    - Hypervigilance
    - Heightened startle reaction
    - Difficulty concentrating
    - Difficulty sleeping
- Criterion F (required): Symptoms last for more than 1 month.
- Criterion G (required): Symptoms create distress or functional impairment (e.g., social, occupational).
- Criterion H (required): Symptoms are not due to medication, substance use, or other illness. https://www.ptsd.va.gov/professional/ptsd-overview/dsm5_criteria_ptsd.asp

While diagnosing and treating patients with PTSD should be left to medical professionals it is important for personal injury attorneys to be familiar with PTSD symptoms so they can ensure their clients are being properly treated for their injuries.

Additionally, the various imaging techniques discussed previously in the article can be used to diagnosed chronic PTSD. Areas of the brain constantly being bombarded with posttraumatic distress atrophy to such a degree that it is noticeable in diagnostic imaging. Such areas typically include the amygdala, ventromedial prefrontal cortex, and hippocampus. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)

IV. Experts for Traumatic Brain Injuries and Other Psychological Injuries

Traumatic brain injury cases are complex cases and require expert testimony to meet the legal burden of proof and to persuade the jury. Lawyers must ensure that their experts are the correct quality and kind as brain injury cases can be won or lost in the expert battle. The following is a list of experts that are often indispensable in traumatic brain injury cases.

a. Neuropsychologist

Neuropsychology is the study of the structure and function of the brain as they relate to specific psychological processes and behaviors. These experts utilize brain scans and standardized neuropsychological tests to diagnose brain dysfunctions. They will also testify regarding the brain dysfunction traumatic injury causes and the probable effect of the brain injury on the patient's future family, social, and work performance.

b. Biomechanical Engineer

Biomechanical engineers apply principles of mechanical engineering to biological systems and stems from the scientific discipline of biomechanics. These experts will testify regarding the mechanical forces generated from a given impact and the probable disruption caused on regions of the human body. Based on this the expert will then testify regarding whether or not the incident at issue could have caused the traumatic brain injury that the plaintiff has been diagnosed with.

c. Life care planner

A life care planner is an expert that will testify regarding the future economic needs of the plaintiff that will be necessary due to their traumatic brain injury. While these types of experts will not be necessary for every traumatic brain injury case they are indispensable for severe traumatic brain injuries. Further, it will be necessary that the life care plan be approved and agreed to by a testifying physician.

d. Vocational Rehabilitation

Vocational experts help people with functional, psychological, developmental, cognitive and emotional impairments or health disabilities to overcome barriers to accessing, maintaining or returning to employment. As discussed above plaintiffs with traumatic brain injuries can have a wide variety of barriers preventing them from returning to gainful employment. A vocational rehabilitation expert will be necessary to testify regarding the plaintiff's pre-injury earning capacity, their post-injury earning capacity, whether the plaintiff can return to their competitive employment, what jobs would be available for the plaintiff, whether the plaintiff suffered a decrease in life expectancy as a result of the injury, and the projected loss of earning capacity over their lifetime in terms of present value.

e. Economist

In traumatic brain injury cases an economist will testify regarding the present value of future lost income earning capacity, lost profits, and medical expenses as well as assist in drafting the life care plan.

f. Grief Counselors

In psychological injury cases grief counselors case be powerful witnesses and they serve two primary functions. First, grief counselors help the client face and recover from the traumatic event they have experienced. Second, grief counselors help explain the existence, nature and degree of the psychological injury and how it was caused by the traumatic event. I have found grief counselors to be particularly helpful in cases of wrongful death, sexual molestation and to help explain bystander claims.

g. Neurologist

Neurologists are the experts called to explain the nature and mechanism of injury. In a mild TBI case, they can help explain why negative images do not rule out the presence of a brain injury. In a moderate to severe TBI case they can help explain the pathology of the injury to the brain and how that injury relates to the symptoms the plaintiff is experiencing. Treating neurologists can be good damage witnesses to help explain what the future medical needs of a brain injured client will be.

V. Traumatic Brain Injury Risk Factors in Medical Literature

a. Effects on Mortality: Individuals with moderate to severe TBI have a seven (7) year reduction on life expectancy. Individuals with mild TBI have a small but statistically significant reduction in long term survival. Cindy Harrison-Felix et al., *Mortality Following Rehabilitation in the Traumatic Brain Injury Model System of Care*, 19 NeuroRehabilitation 45 (2004).
b. Effects on Morbidity: In a study of 1290 individuals over ten years post TBI the individuals had 1.5 times more post injury hospitalizations, 5.1 times more days in the hospitals, 1.4 times more post injury physicians visits. Thomas McMillan et al., *Death After Head Injury: The 13 Year Outcome of a Case Control Study*, 82 J. Neurology Neurosurgery & Psychiatry 931 (2011).
c. Epilepsy: TBI is the leading cause of epilepsy in young adults. Individuals with TBIs are 1.5 to 17 times more likely to develop seizures than the general population. John Annegars, et al, *A Population Base Study of Seizures After TBI*, 338 N. Eng. J. Med. 20 (1998). The risk of epilepsy 10 years post TBI is: Mild TBI—1.5 times more than general population, Skull Fracture—2.06 times more, Severe TBI—4.29 times more. Jakob Christensen, et al., *Long-term Risk of Epilepsy After TBI in Children and Young Adults: A Population-Based Cohort Study*, 373 The Lancet (2009).
d. Psychiatric Disease: There is a higher incidence of psychiatric disease in patients with chronic TBI: 20% report psychosis, 18-61% report depression, 1-22% report mania, 3-59% report PTSD, 20-40% report aggressive behavior. Edward Kim, et al., *Neuropsychiatric Complications of TBI: A Critical Review of Literature*, 19 J. Neuropsychiatry & Clinical Neurosciences 106 (2007).
e. Alzheimer's: Individuals with moderate to severe TBIs have 2 times increased risk of developing Alzheimer's and other forms of dementia. Scott Gottleib, *Head Injury Doubles the Risk of Alzheimer's Disease*, Brit.Med.J., Nov 4, 2000 at 1100.
f. Stroke: Individuals with TBIs have an increased risk of stroke, even higher than those with hypertension. James Burke, et al., *Traumatic Brain Injury May be an Independent Risk Factor for Stroke*, 81 Neurology 33 (2013).

g. Brain Tumors: Patients with TBI were 4.67 times more likely to develop malignant brain tumors when compared to general population. Yi-Hua Chen, et al., *Association Between TBI and the Risk of Brain Cancer*, 29 J. Neurotrauma 1328 (2012).
h. Multiple Sclerosis: Head Trauma in adolescence, particularly if repeated, is associated with increased risk of future MS. Scott Montgomery, et al., *Concussion in Adolescence and Risk of Multiple Sclerosis*, 82 Annals of Neurology, 554-561 (2017). Increased Risk of MS in TBI patients over 6 year follow up period. Juinn-Horng Kang, et al., *Increased Risk of MS After TBI: a Nationwide Population-Based Study*, 29 J. Neurotruama 1936 (2012).
i. Parkinson Disease: Mild TBI is associated with a 56% increased risk of developing Parkinson Disease. Raquel Gardner et al, *Mild TBI and risk of Parkinson Disease: a Chronic Effects of Neurotrauma Consortium Study*, 90 Neurology, May 2018, 1771-1779.
j. Sexual Dysfunction: 40-50% of individuals with TBI report sexual dysfunction. Nathan Zasler et al, *Brain Injury Medicine* (2006).
k. Sleep Disturbances: 70% of TBI patients have abnormal sleep disturbances. Brent Masel, et al., *Excessive Day Time Sleepiness in Adults with Brain Injuries*, 821 Archives Physical Med & Rehabilitation 1526 (2001).

VI. Practical Tips

a. Exhibits: Use a model of the skull and brain when examining expert witness so the expert can show the parts of the brain impacted by the brain injury. You can also use a computer 3D model available on apps like *Human Anatomy Atlas—3D Anatomy*. Use the computer 3D model with expert witness in depositions and trial. There are services (i.e., Authentic 3D, http://authentic3d.com/) that can construct a 3D model from a CT scan or MRI which is also a great way to show the jury your client's brain injury. Another important exhibit in the brain injury case is an exhibit which demonstrates the mechanism of injury. This exhibit may be as simple as a blowup board demonstrating the movement of the head and brain during a car crash. You should consider using a general demonstrative video showing the mechanism of injury or, in larger cases, have a computer image of the mechanism of injury and the resulting damage to the plaintiff's brain.
b. Client at trial?: Typically we do not have our brain injured clients at trial except for their direct examination. We often do not have the clients at trial since, depending on the level of TBI, the client may not "look" injured and their attendance during trial may desensitize the jury to the client's full injuries. In addition, trials can be very traumatic and confusing to brain injured clients.
c. Opening Statement: In a mild TBI case it is imperative to explain in opening statement that the client may not appear injured. I often refer to the TBI injury as an "invisible injury" because, by and large, it is. Even though the plaintiff may walk into the courtroom on their own power and be able to talk normally it doesn't mean they are processing or remembering information normally. In opening introduce the experts, explain their qualifications, why they are there and, generally, what they are going to say. Make sure to set out the bullet points of the plaintiff's injuries. I like to do a "before and after" description of the client's injuries.
d. Damage Lay Witnesses: Make sure to have "before and after" damage witnesses who can testify about the difference in the client's behavior, physical abilities, memory, emotional stability, etc. It is more effective to have the witnesses tell specific stories about the client's injuries as opposed to general descriptions of injuries. Also try to mix up the categories of damage witnesses. Use family members, friends, teachers, church members, etc. Try to avoid having the plaintiff testify about their own injuries as this can appear like whining—nobody likes a whiner.
e. Treating Doctors & Counselors: Don't underestimate the importance of using treating doctors and counselors to explain the injuries in a brain injury or psychological trauma case. They can be powerful witnesses without the baggage of retained experts. In a smaller case consider using counselors affiliated with schools, churches or other public service organizations.
f. Settlement: In the appropriate case consider setting up a Special Needs Trust for the brain injured client. A Special Needs Trust can allow the plaintiff to accept a settlement and continue to receive important government benefits like Medicaid, Medicare or disability benefits.

VII. Conclusion

The public at large has begun to have a better understanding and appreciation of traumatic brain injuries. Studies have shown that even cases of "mild" traumatic brain injury can have devastating and permanent consequences to the plaintiff, as well friends and family. Advances in medical technology have made it easier to diagnose, objectively verify and treat TBI. It is important to use all the available tools, technology and experts to effectively communicate traumatic brain injuries, and related "invisible" psychological injuries, to the modern jury.