



## Frequently Asked Questions Regarding Brain Injury

### What is the difference between an acquired brain injury and a traumatic brain injury?

An acquired brain injury (ABI) is an injury to the brain that is not hereditary, congenital, degenerative, or induced by birth trauma. It includes all types of traumatic brain injuries and also brain injuries caused after birth by cerebral vascular accidents (commonly known as stroke), and loss of oxygen to the brain (hypoxic brain injury).

A traumatic brain injury (TBI) is an alteration in brain function, or other evidence of brain pathology, caused by an external force. The cause of this type of injury is an external force after birth. Common causes of a traumatic brain injury include gunshot wounds, motor vehicle crashes, assaults, or falling and striking your head.

Conditions to the brain that are present at birth or are progressive in nature, such as Alzheimer's disease or Parkinson's are not considered a traumatic or acquired brain injury.

### What are the causes of Traumatic Brain Injury?

- Falls
- Assaults
- Motor vehicle crashes
- Sports and recreation injuries
- Shaken baby syndrome/abusive head trauma
- Gunshot wounds
- Workplace injuries
- Child abuse
- Domestic violence
- Military actions (blast injury)

### What are the causes of Non-Traumatic Brain Injury?

- Stroke (hemorrhage or blood clots)
- Infectious disease (encephalitis, meningitis)
- Seizure disorders
- Electric shock/lightning strike
- Tumors (surgery, radiation, chemo)
- Toxic exposures (substance misuse, ingestion of lead, inhalation of volatile agents)
- Metabolic disorders (insulin shock, diabetic coma, liver and kidney disease)
- Neurotoxic poisoning (carbon monoxide poisoning, inhalants, lead exposure)





- Lack of oxygen to the brain (near drowning, airway obstruction, strangulation, cardiopulmonary arrest, hypoxia, and anoxia)

### **What is the Brain Injury Incidence in the United States and New Mexico?**

According to the Brain Injury Association of America an estimated 2.5 million people sustain Traumatic Brain Injuries on a yearly basis in the United States. The groups that are most at risk to suffer injuries are young children, adolescents/young adults, and older adults.

In 2010, the New Mexico Epidemiology and Responsive Division Office of Injury prevention reported that between the years 2004-2007 an average of 9,020 people were discharged from hospitals with brain injury related diagnosis. The majority of those discharges (Avg.: 7,631) were ABI related discharges; while an avg. of 1,389 were TBI related discharges

### **What is the Prevalence of Brain Injury in the United States?**

Brain Injury is the second most prevalent cause for disability in the United States according to the Brain Injury Association of America; an estimated 13.5 million Americans are living with a brain injury at this time, which represents 4.5% of the population of the United States.

The overall rates of Traumatic Brain Injury have gone up gradually from 2001 through 2010; this is due to the drop on death related to Traumatic Brain Injury over the same period of time.

### **What is the functional impact of Brain Injury?**

While broken bones eventually heal, cognitive, sensorimotor, and behavioral deficits can result in life long changes in how an individual with brain injury functions in society. A brain injury can affect how a person feels, thinks, acts, and relates to others.

The functional impairments that result from brain injury are: cognitive impairment, memory impairment, executive function impairment, initiation impairment, speech and language impairment, sensorimotor impairment, and behavior and emotional changes.





### **What are cognitive impairments?**

They can be defined as specific skill deficits that may occur following a brain injury. Some of the most common cognitive impairments are: arousal or over-stimulation, attention and filtering issues, information coding and retrieval (memory) issues, learning – both using old information and acquiring new information, problem solving, higher-level thinking skills also known as “executive skills.”

With the right treatment and access to rehabilitation some cognitive problems will resolve themselves over time, others may persist and require the person to utilize compensatory strategies to overcome such deficits.

### **What are neurobehavioral challenges?**

They can be defined as behavioral challenges that can be attributed to specific aspects of a brain injury.

Sometimes normal inhibitions and judgment are reduced due to the injury; a person with a brain injury may have challenges with self-regulation or self-control, impulse control, over-arousal, frustration tolerance and problems in perception. They may overreact to situations, get angry without provocation or behave in socially inappropriate ways.

Medications are effective in assisting them with behavior control in some cases, but it is important that in all cases appropriate behavior learning strategies are designed specifically for the person to teach how to control/better approach different situations and reactions.

### **What causes the inability to control anger and aggression after injury?**

Neurobehavioral and personality changes are often considered to be the most problematic consequence of brain injury; these behavioral challenges can be temporary or lifelong.

The manifestation of such behavioral changes can be directly correlated to the location of a brain lesion. Aggression and anger are traits frequently present when the lesions affect the frontal lobe.

Anger and aggression seem to be caused by a reduction of impulse control as the result of the brain lesions.

### **What causes difficulty controlling emotions and inappropriate sexual behavior?**

After brain injury folks can lose the appropriate boundaries when they experience sadness, happiness, and sexual feelings. The loss of inhibition and impulse control can result from the location of their brain lesions, or the loss of communication between areas of the brain, like we see in individuals with Diffuse Axonal Injuries.





### **What is a contusion?**

A contusion is a more serious blow to the brain. Contusions result in bruising of the brain and more noticeable loss of functions. More comprehensive care is required for a contusion. Follow-up treatment and evaluation are required on a regular basis.

### **What is a concussion?**

A concussion results from a blow to the head which causes the brain to strike the skull. A concussion does not cause any structural damage to the brain, but can cause temporary loss of functioning. Headaches, memory loss and sleep disturbance are common symptoms a person may experience after such an injury.

### **Is there financial assistance for people with brain injury and their families?**

Financial assistance may be available after a brain injury although not everyone who sustains a brain injury is likely to be eligible to receive it. Financial assistance can come from a range of federal government programs, such as SSI and SSDI (Supplemental Security Income and Social Security Disability Income), state and local government programs, not-for-profit organizations and foundations, community groups, religious organizations and even local fundraising events.

In addition to direct financial assistance, help with low-cost housing, paying heating bills, transportation, education, nutrition and job training may be available. These services vary widely by state, city and town.

Many opportunities have special eligibility requirements; contacting the New Mexico Brain Injury Resource Center, Brain Injury Advisory Council, or the New Mexico Brain Injury Alliance is a good start in the quest to learn more about available funding and financial support.