

Traumatic Brain Injury & Epilepsy

*“Important Information
for Veterans and Family Members”*



**EPILEPSY
FOUNDATION®**

Not another moment lost to seizures™

Traumatic Brain Injury & Epilepsy

- What is epilepsy?
- Link between epilepsy & a traumatic brain injury.
- What is post-traumatic epilepsy?
- Where can you get help?

What is Epilepsy?

- Medical condition that results in seizures; can affect some mental & physical activity.
- Also called “seizure disorder.”
- Seizure - brief, strong surge of electrical activity affecting part or all of brain.

What is Epilepsy?

- Seizures can last from a few seconds to a few minutes.
- Considered to have epilepsy after having 2 or more unprovoked seizures.
- Symptoms – convulsions, loss of consciousness, blank staring, lip smacking or jerking movements.

What Causes Epilepsy?

- Cause is unknown in 70% of cases.
- Most common causes in other 30%:
 - **Head trauma (Traumatic Brain Injury)**
 - *Infection of brain tissue*
 - *Brain tumor and stroke*
 - *Runs in the family (heredity)*
 - *Lead poisoning*
 - *Prenatal brain disturbances*

Who has Epilepsy?

- About **3 million people** in the US have epilepsy. (Source: www.epilepsyfoundation.org)
- Roughly **150,000 New Cases** of seizures and epilepsy occur each year. (Source: Institute of Medicine. 2012. *Epilepsy Across the Spectrum: Promoting Health and Understanding*)
- About **1 in 26** individuals will develop epilepsy at some point in their lives. (Source: www.cdc.gov/epilepsy)
- **50%** of people with epilepsy develop seizures by the age of 25; however, there are currently just as many seniors (60+ yrs.) with epilepsy as children (0-10 yrs.)

Who is at Highest Risk for Developing Epilepsy?

- The risk is higher in people who have:
 - *Mental retardation*
 - *Cerebral palsy*
 - *Alzheimer's disease*
 - *Stroke*
 - *Autism*
 - *Experienced head trauma {**Traumatic Brain Injury (TBI)**}*

What is Traumatic Brain Injury (TBI)?

- According to the Center for Disease Control and Prevention (CDC):
 - A head trauma or TBI is caused by a bump, blow or jolt to the head or a penetrating head injury that disrupts the normal function of the brain.
 - Approximately **1.7 million** people sustain a head trauma or TBI every year.

(Source: www.cdc.gov/TraumaticBrainInjury; 2010)

What is Post-Traumatic Epilepsy?

- Post-traumatic epilepsy (PTE) is a seizure disorder caused by a head trauma or TBI.
- PTE most likely occurs after an open or penetrating wound to the head & can also follow a closed head injury.
- Incidence of PTE highest in military because service members are at higher risk for head trauma or TBI than general population.

Head Trauma & The Military

“Head trauma (or TBI) is a common injury in active duty service men and women ”.

- 50 to 80 % of all head traumas (or TBIs) are due to blast-related injuries.

Link Between Epilepsy and Head Trauma

*“Post-Traumatic Epilepsy (PTE)
is a seizure disorder
caused by a head trauma.”*

- PTE is often associated with:
 - *Skull fracture*
 - *Subdural hematomas - accumulation of blood between the brain and the skull*
 - *Intracranial hematomas/hemorrhages*
 - *Brain contusion (bruise)*

Link Between Epilepsy and Head Trauma

“The risk of PTE increases with the severity of the head trauma”

- Mild head trauma: **1.3 times** as likely to develop PTE.
- Moderated head trauma: **2.9 times** as likely to develop PTE.
- Severe head trauma: **17.2 times** as likely to develop PTE.

Incidence of Head Trauma & PTE in the Military

- **1.64 million** service members have served in Iraq & Afghanistan.

- **320,000** or **19%** of these service members will experience a head trauma.

- **15-34 %** of head trauma cases also have PTE and active duty military rates can be as high as **52%**.

- Therefore between **48,000-169,000** service members serving in Iraq & Afghanistan are expected to develop post-traumatic epilepsy.

Where Can You Get Help?

“There are resources available to help service members and their families receive accurate information regarding post-traumatic epilepsy & head trauma.”

***[INSERT LOCAL AFFILIATE SERVICES
AND CONTACT INFORMATION HERE]***

Where Can You Get Help?

*[INSERT LOCAL AFFILIATE SERVICES
AND CONTACT INFORMATION HERE]*

Where Can You Get Help?

Additional Resources

- The Epilepsy Foundation
 - www.epilepsyfoundation.org
- Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE)
 - www.dcoe.health.mil
- Defense and Veterans Brain Injury Center (DVBIC)
 - www.dvbic.org
- Epilepsy Center of Excellence (ECoE) – US Dept. of Veterans Affairs
 - www.Epilepsy.va.gov

Where Can You Get Help?

Additional Resources Cont.

- National Association of Epilepsy Centers (NAEC)
 - www.naec-epilepsy.org
- National Institute of Neurological Disorder and Stroke (NINDS):
 - www.ninds.nih.gov/disorders/epilepsy/epilepsy.htm
- MedlinePlus: Epilepsy:
 - www.nlm.nih.gov/medlineplus/epilepsy.html.
- Centers for Disease Control and Prevention(CDC)
 - www.cdc.gov/epilepsy

Key Points

1. *“Head trauma (or traumatic brain injury) is a common injury in active duty service men and women ”.*
2. *“Post-traumatic epilepsy is a seizure disorder caused by a head trauma”.*
3. *“The risk of post-traumatic epilepsy increases with the severity of the head trauma”*
4. *“There are resources available to help service members and their families receive accurate information regarding post-traumatic epilepsy and head trauma”.*

Any Questions?

