

Do things not seem to come together, no matter how hard you try ? Do you always feel like you are falling short ? Can you just not remember things like what you did yesterday or where you met your spouse ? Do you have a 5 second fuse on your temper and become explosively angry at things you would not have noticed a few years ago ? Are you having trouble reading and focusing on a screen ? Do you feel like you have Alzheimer's dementia but you are only 27 years old ? Is it a psychiatric condition ? A response to "war trauma" ? Or is it TBI ? As a neurologist and brain injury specialist, for many years I have evaluated military veterans to "**rule out**" traumatic brain injury (TBI). But that is not what happened. Every single veteran I evaluated had clinical exam findings, symptoms and complaints as well as MRI – DTI finding consistent with TBI. Why is this happening ?

Beliefs that are commonly held about how a brain injury occurs are often wrong ! There is a pervasive belief that if you were not knocked unconscious for some significant period of time that you cannot possibly have suffered a TBI. This is untrue. In fact the majority of the veterans that I saw had never lost consciousness, but instead had been exposed to blast after blast after blast. They often recalled the acute onset of neurological symptoms associated with each blast injury.

There is also a belief that if you were not within 150 feet of the blast, that it was not powerful enough to have any effect. Wrong again. If you could feel the explosion, it may have had an impact. You do not need to physically strike your head to suffer a concussion. The pressure wave that impacts your body followed by the vacuum causes bubble to embolize in your body just like someone who is deep under water and comes to the surface too quickly: blast injuries are like **the bends**. Additionally, just like in the NFL, more injuries equals worsened brain trauma.

Another misconception is that if you have "psychiatric" symptoms, then you have PTSD or some other psychiatric diagnosis rather than TBI. Psychiatric symptoms arise from brain dysfunction. Psychiatrists prescribe medicine based on descriptions of emotions and behaviors. The unaddressed question is: what is the biological basis ? Concussion causes generalized brain dysfunction, but often there are trauma associated focal areas of the brain that have experienced more significant injury. Focal injury causes localized dysfunction. It is very common to have both generalized and localized

manifestations of brain injury. Damage to the frontal lobe of the brain may cause depression, mood instability, lethargy and poor decision making. Damage to the temporal lobes of the brain may cause seizures and poor memory. Damage to the occipital cortex, which is the visual information processing part of the brain, will cause visual symptoms.

There are important questions to ask yourself to determine if your symptoms actually represent TBI:

1. When did my symptoms begin ? Symptoms due to TBI are typically evident immediately following the physical injury.
2. Was I exposed to any blasts, jolts, blows to the head even stateside during training, that may have had an impact ? Many physical traumas create TBI.
3. Do I have headaches ? Headaches are common with TBI and begin after the physical injury.
4. Am I dizzy ? Loss of balance and a feeling of unsteadiness is a typical symptom of brain injury.
5. Am I tired ? Being tired but unable to sleep is a symptom of diffuse brain injury, although it can also be associated with hyper vigilance.
6. Am I able to read as long as I used to be able to read ? Difficulty with visual fixation ( in order to read a word ) and visual follow ( reading across a line of print ) is a complex integrated function of the brain and is a symptom of diffuse brain injury.
7. Can I remember how to do routine tasks of my life and my job ? Typically a person with primary PTSD is still able to recall how to perform routine tasks while a person with TBI cannot.

PTSD symptoms typically revolve more closely around an emotionally painful event. Some veterans are said to have “ complex PTSD” and it is likely that those veterans have experienced both kinds of trauma. Classic PTSD symptoms include re- experiencing the distressing event over and over again triggering a strong emotional response; being motivated to avoid situations that will trigger event – related memories and being hyper - vigilant. Treatment for TBI is different than treatment for primary PTSD. Make sure you have an accurate diagnosis. If you think you have had a TBI but are being diagnosed with a psychiatric condition: make sure you have a brain SPECT scan or a brain MRI – DTI as part of your evaluation. It is important to be diagnosed with both conditions if both injuries occurred. If both are not treated, true healing will not take place.