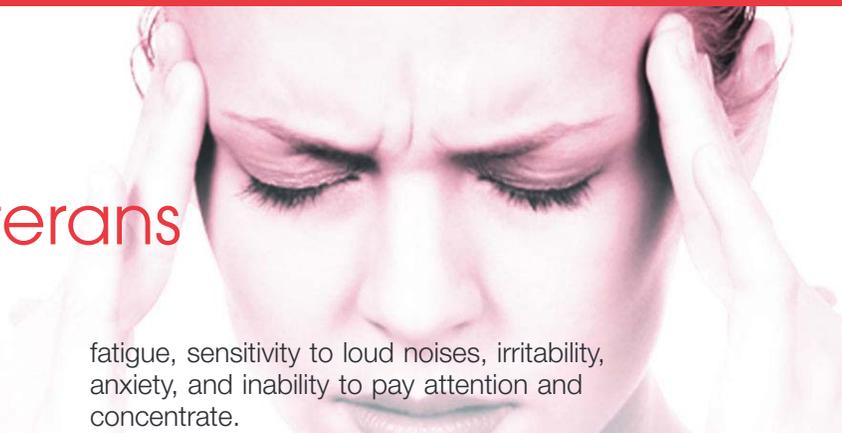


# Headache Toolbox

## Post-Traumatic Headache in Veterans



Veterans of Iraq and Afghanistan may be particularly susceptible to headaches occurring after their exposure to warfare. The reasons for this may be related to new forms of weapons, often involving explosive devices that can set off a chain of brain changes resulting in either new headaches, or worsening of a pre-existing headache disorder.

Recent statistics show that up to 20% of Operation Iraqi Freedom and Operation Enduring Freedom veterans experience traumatic brain injury (TBI), also sometimes called concussion. Fortunately, most of these injuries are classified as mild, resulting in no loss of consciousness or loss of consciousness less than 30 minutes.

Many of these veterans develop headaches as a principle symptom after these injuries. By formal headache classification, post-traumatic headache must start within 7 days of these injuries, but in real life war, headache is often noted later.

TBI is considered mild when loss of consciousness is less than 30 minutes in duration. About 75% of mild TBI comes from blast injuries, 29% from falls, and 22% from motor vehicle injuries (multiple insults occurring per injury accounts for the overlap). Many veterans experience multiple blast exposures, and these are believed to heighten the risk of headaches and other symptoms. Headaches sometimes become noticeable weeks after the blast is experienced.

What are the symptoms associated with TBI or concussive injury? Although headache is perhaps the most common one, other symptoms that may make the headaches worse are sleep disorders, memory loss, dizziness,

fatigue, sensitivity to loud noises, irritability, anxiety, and inability to pay attention and concentrate.

Insomnia occurs in 56% of veterans with mild to moderate TBI, and this interlocks with their headache disorder, such that the insomnia worsens the headaches, and the headaches may keep the individual awake at night. Sleep disturbance contributes to and worsens TBI symptoms (pain, memory, and attention). Insomnia can alter pain processing and interferes with an individual's natural pain control system. Headache pain may in itself disrupt sleep and cause multiple arousals during the night. Use of typical sleep agents can worsen memory and attention capabilities, as well as depression, and usually these are not recommended. Small studies using prazosin, a blood pressure medication, have shown promise in quieting the nightmares that can worsen veteran sleep quality.

There is a strong link between post-traumatic headache and post-traumatic stress disorder (PTSD) in veterans with TBI. One study showed that 44% of Iraqi veterans who experienced injury with brief loss of consciousness had PTSD. Veterans with PTSD are 4 times more likely to have headaches.

What is PTSD? It is a disorder occurring after a life-threatening exposure, such as war, in which the individual experiences flashbacks to the traumatic event, intrusive thoughts, sometimes numbness, increased awareness of or attention to perceived danger, sleep disturbance, and heightened anxiety.

Linking headaches, TBI, sleep disorder, and PTSD is important, as it suggests that treatment

is unlikely to be successful with a single pill or intervention. Research suggests that a coordinated team approach in which symptoms are addressed and treated, with an overseeing clinician advocate making sure that care is not fragmented or contradictory, is the best way forward.

Medicines can be helpful. The Veterans Administration/Department of Defense clinical practice guidelines for management of concussion suggest non-steroidal anti-inflammatories for acute treatment of post-traumatic headaches and triptans for post-traumatic migraine. The use of these acute medications needs to be limited to 2 days per week for those with migraine. For more frequent headaches, preventive medications suggested include divalproex sodium extended release, topiramate, and metoprolol.

The good news is that most post-traumatic headaches do get better with time and symptom management. Prevention of recurrent concussions, whenever possible, and providing full recovery between potential concussions improves this outcome.

There are excellent internet resources available on concussion, TBI, and veteran services. They include:

1. Defense and Veterans Brain Injury Center: <http://www.DVBIC.org>
2. Center for Disease Control (CDC): <http://www.cdc.gov/tbi>
3. CDC: <http://www.cdc.gov/concussion/>

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