A significant number of U.S. troops deployed to Iraq and Afghanistan have suffered from traumatic brain injuries (TBI) ranging from mild (mTBI) to moderate to severe; estimates range from a low of 180,000 to a high of 360,000, which represents 10% to 20% of the roughly 1.8 million who have served. While the vast majority of TBI has been mild in the form of concussion, some 45,000 to 90,000 troops have suffered moderate to severe TBI whose effects can last a lifetime and dramatically alter the lives of the wounded and their families and children.

TBI in theatre can result from blast exposure, gunshot wounds and shrapnel, falls, and motor vehicle accidents. It often coexists with other serious injuries, to include loss of limb, sight or hearing, burns, and psychiatric conditions such as depression, anxiety, and posttraumatic stress disorder. Like other combat injuries, TBI has a recovery trajectory that depends on the severity of injury. While not life-threatening, mTBI can produce a number of symptoms (see below) that concern patients and families, and may even suggest other conditions.

Moderate to severe TBI (suggested by prolonged loss of consciousness and/or amnesia after the event) presents serious practical and emotional challenges for families. Because of the widespread nature and prevalence of TBI, especially mTBI, healthcare and primary care providers should be alert to its potential presence and its implications for families. This Courage to Care provides an overview of mTBI, care recommendations, and key psychosocial issues for families and children dealing with more severe TBI.

Symptoms of mTBI (Concussion)

The majority of mTBI resolve within a year, sometimes sooner. Symptoms can appear days, weeks, or months after the injury. It is important to convey that healing takes patience and time. More severe or prolonged symptoms may indicate the presence of other conditions such as posttraumatic stress disorder, depression, or substance abuse, and may require further evaluation and treatment.

- Headaches and/or dizziness
- Excessive fatigue (tiredness)
- Problems with concentration or memory
- Irritability
- Sleep problems
- Balance problems
- Ringing in the ears and/or vision changes

Patient Care Recommendations

- Get plenty of sleep at night and avoid overexertion during the day
- Return to normal activities gradually
- Avoid activities that can lead to another brain injury
- Avoid alcohol as it can slow brain recovery
- Write down things to remember important things/details
- Place commonly used items (e.g., car or house keys) in the same place
- Focus on doing one activity at a time

Moderate to Severe TBI: Implications for Families

TBI presents a range of behavioral challenges that families must deal with over time. Understanding some of these issues and asking direct questions about the impact of the injury on the non-injured spouse and their children is important.

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■ **Injury as grief and loss:** When you talk about the impact of moderate to severe TBI, the service member is not who they used to be. There is grief and loss of the service member not being able to return to the developmental pathway that had been there before the injury. There are memories of how the person used to function with direct comparison to present abilities.

■ **Inappropriate behaviors:** TBI involves primarily the family who must manage the injured service member’s potentially inappropriate behaviors in public. These may include lack of inhibition, anger, and outbursts, as well as the other extreme — withdrawal, apathy, and depression.

■ **Implications for children:** The resulting changes a parent with TBI may demonstrate (changes in personality, irritability, or withdrawal) can be confusing to a child. Younger children may assume they are responsible for the problems they see, or even that their injured parent no longer loves them. Efforts should be made to reduce children’s exposure to outbursts. Talking to children can help, i.e., explaining that “Dad is grumpy and angry because his brain was hurt. He sometimes says or does things he doesn’t really mean.”

■ **Social isolation:** This may be an issue due to the exhausting caregiving responsibilities and fear over how the TBI patient is going to behave. Part of the focus needs to be to help the family avoid social isolation and engage in the community and available supports.

■ **Family management:** For most injuries, it is going to be about overcoming and adapting to the injury. In the case of severe and moderate to severe TBI, the focus should be on the partner’s ability to help the injured service member.

Healthcare providers in military and civilian settings are increasingly aware of the prevalence and effect of TBI amongst military and civilian personnel deployed to Iraq and Afghanistan. In the case of mTBI, it is important to communicate self-care, expectation of recovery, and the potential, if symptoms persist, to be something other than or in addition to mTBI. Moderate to severe TBI will have an enduring impact on families who need to understand the critical challenges in order to cope and overcome the burden of care.

**Resources**

■ **Mild Traumatic Brain Injury: Pocket Guide for Clinicians:**
  https://www.publichealth.va.gov/docs/exposures/TBI-pocketcard.pdf

■ **Defense and Veterans Brain Injury Center:**
  https://dvbic.dcoe.mil/

*Courage to Care* is a health promotion campaign of Uniformed Services University and its Center for the Study of Traumatic Stress (CSTS). CSTS is the academic arm and a partnering Center of the Defense Centers of Excellence (DCoE) for Psychological Health and Traumatic Brain Injury.