

New research on military traumatic brain injury

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Researchers are making new strides in understanding the health consequences and treatment and rehabilitation needs of combat veterans and other service members affected by traumatic brain injury (TBI). The January-February issue of [The Journal of Head Trauma Rehabilitation](#), official journal of the [Brain Injury Association of America](#), is a special issue devoted to new research in military TBI.

"For the second consecutive year, we've expedited publication of new papers related to diagnosis, management, and rehabilitation of the many thousands of military personnel affected by TBI," comments John D. Corrigan, PhD, ABPP, Editor-in-Chief of *JHTR*. Contributed by leading U.S. experts in [brain injury](#) and rehabilitation, the eight papers in the special issue address a wide range of aspects of military TBI—from combat to peacetime, and from active duty to many years after trauma.

Important Updates on Brain Injury in Military Personnel

There's a pressing need for new research on military TBI—a problem with lasting consequences on the lives of thousands of Iraq and Afghanistan war veterans. It has been estimated that 19 percent of military personnel will sustain a TBI during combat deployment. Although most of these injuries are mild, some of those service members who incur a mild TBI will go on to develop a "post-concussive" syndrome, consisting of chronic cognitive, behavioral, and [psychological](#)

[problems.](#)

Several papers in the special issue address associations of mild TBI with post-concussive symptoms and other co-occurring problems, including posttraumatic stress disorder (PTSD), depression, [suicidal thoughts](#) and behavior, and pain. Dr Corrigan comments, "The interplay of TBI, post-concussive symptoms, PTSD, depression, suicidality, pain, and substance abuse is the most challenging problem facing the Department of Defense and VA when treating service members with TBI."

Highlighted topics include:

- Research by Dr Jeffrey J. Bazarian of the University of Rochester, linking PTSD to structural brain damage seen on diffusion tensor imaging—even in service members with no reported history of mild TBI. Blast-related trauma may have subclinical effects—not experienced at the time of injury, or not recalled—that are associated with PTSD. "Some of the effects of blast exposure may be below the threshold of symptom experience, including a predisposition to PTSD," Dr Corrigan comments. "If so, this would offer additional support for the policy of event-based screening for 24-hour removal from combat in Afghanistan, recently introduced by the Army and Marine Corps."
- A study by Kelly J. Miller, MPH, and colleagues of the Defense and Veterans Brain Injury Center, reporting that service members with previous TBIs had more symptoms in the first three months after a subsequent injury, compared to those with their first TBI. "These findings underscore the growing appreciation that in addition to severity of TBI, prior experience of TBI is also an important determinant of consequences both short- and long-term," says Dr Corrigan.

- A study by Andrew J. MacGregor, PhD, MPH, and colleagues of the Naval Health Research Center, San Diego, which found that service members with mild TBI were more likely to report health symptoms, such as headache, back pain, ringing in the ears, dizziness and memory problems. Those with dizziness and memory problems were at particularly high risk of declining health after mild TBI.

Other topics in the special issue include important associations of loss of consciousness, altered consciousness, or amnesia with the outcomes of TBI; factors associated with use of health care services by veterans with TBI; and the high rate of TBI among veterans seeking mental health services. The editors have also announced that a [collection of the most popular articles on military TBI](#) published in *JHTR* over the past three years has been made available free on the journal website. Dr Corrigan adds, "We hope these papers will help to increase awareness of TBI and its consequences among returning veterans, and spur further research into the most effective approaches to treatment and rehabilitation."

Provided by Wolters Kluwer Health

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