



Defense Health Agency (DHA) Clinical Communities Speaker Series

OCT 2024 CCSS: Fostering Quality and Excellence in Military-Specific Care

S01: The Department of Defense's (DoD) Warfighter Brain Health Initiative: Maximizing Performance On and Off the Battlefield

Resource List

The purpose of the study, [High lifetime blast exposure using the blast exposure threshold survey is associated with worse warfighter brain health following mild traumatic brain injury \(2024\)](#) was to extend previous research by examining the relationship between lifetime blast exposure and neurobehavioral functioning after mild TBI (MTBI) by using a comprehensive measure of lifetime blast exposure, and controlling for the influence of post-traumatic stress disorder (PTSD). This study extends existing literature showing that lifetime blast exposure, that is largely subconcussive, may negatively impact warfighter brain health and readiness beyond diagnosable brain injury.

[The Centers for Disease Control and Prevention's \(CDC\) National Institute for Occupational Safety and Health \(NIOSH\) Promising Practice October 2024](#) features Total Worker Health® highlighting real-world examples of organizations using comprehensive workplace policies, programs, and practices with positive results. This edition highlights the Business Collaborative for Brain Health, a new initiative to promote brain health and performance in the workplace. Estimates show that impaired brain health may cost the global economy as much as \$8.5 trillion a year in lost productivity. Promoting brain health is important for preventing cognitive impairment and fostering broader national interests, like economic growth and community development. Optimizing brain health can help organizations prepare for demographic aging, address mental health challenges, and prevent neurocognitive disorders.

Special Operations Forces have made brain health a medical priority in recent years, and new guidance identified a new challenge—unconventionally acquired brain injury (UBI). Although this emerging condition is described as a cluster of neurosensory and cognitive symptoms with unknown etiology/ origin, there remain critical questions about how this diagnosis differs from other brain injuries. More importantly, there are limited recommendations about how medical personnel should approach the problem. The article, [Unconventionally acquired brain injury: Guidance and instruction about an emerging challenge to warfighter brain health \(2021\)](#) provided context and information about UBI based on higher guidance and will also review the scant literature to provide context. Foremost, UBI can be distinguished from traumatic brain injury (TBI) largely due to an unknown point of injury. The described symptoms otherwise appear to be largely the same as TBI. Likewise, the recommended course of treatment is to follow the Clinical Practice Guidelines for mild TBI/TBI even if the injury is an actual or suspected UBI. Personnel must be careful to avoid entering sensitive information into the medical record, which may be particularly challenging if identifying the cause involves classified information about an unconventional weapon. Finally, the authors briefly discuss the literature about several suspected incidents fitting UBI diagnostic criteria and conclude with five primary takeaways for medical personnel to follow.



Defense Health Agency (DHA) Clinical Communities Speaker Series

References

Biggs, A., Henry, S. M., Johnston, S. L., Whittaker, D. R., & Littlejohn, L. F. (2021). Unconventionally acquired Brain Injury: Guidance and instruction about an emerging challenge to Warfighter Brain Health. *Journal of Special Operations Medicine*, 21(2), 43.

<https://doi.org/10.55460/gyl1-zhbj>

Centers for Disease Control and Prevention. (2024, October). Promising practice October 2024.

https://www.cdc.gov/niosh/twh/news/promising-practice_02.html

Lange, R. T., French, L. M., Lippa, S. M., Gillow, K., Tippet, C. E., Barnhart, E. A., Glazer, M. E., Bailie, J. M., Hungerford, L., & Brickell, T. A. (2024). High lifetime blast exposure using the blast exposure threshold survey is associated with worse warfighter brain health following mild traumatic brain injury. *Journal of Neurotrauma*, 41(1–2), 186–198.

<https://doi.org/10.1089/neu.2023.0133>