

Blast Overpressure Safety Act

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Background: Blast overpressure, which occurs when the pressure from a shock wave exceeds normal atmospheric values, harms the brain by moving it inside the skull and damaging it at a sub-cellular level. During just three months in 2023, the Department of Defense (DoD) provided treatment to service members nearly 50,000 times for traumatic brain injuries (TBI). TBI is considered the “[signature wound](#)” of our wars in Iraq and Afghanistan. For troops with [mild TBI](#), “the most important cause of brain injury was the long-term exposure to explosive weapons.” Researchers measuring blast pressure from roadside bombs in Afghanistan [found](#), “75 percent of the troops’ [blast] exposure was coming from their own weapons.” *New York Times* investigations in late 2023 uncovered service members experiencing [debilitating symptoms](#) such as hallucinations, seizures, and high risk for suicide and depression after exposure to high levels of blast. Despite this, service members continue to [train](#) with weapons with unsafe blast levels.

To better mitigate and protect service members from blast overpressure and TBI, the *Blast Overpressure Safety Act*:

- **Mandates regular neurocognitive assessments over a service member’s career**, including a baseline neurocognitive assessment before training.
- **Creates blast overpressure exposure and TBI logs for all service members**, which will be captured in their individual longitudinal exposure records.
- **Increases transparency regarding blast overpressure safety in the weapons acquisition process.** DoD must consider the minimization of blast overpressure during the acquisition process, require contracting entities to provide blast overpressure safety data, and publish blast overpressure safety data for weapons systems and its plans to better protect service members from in-use weapons systems.
- **Improves data on concussive and subconcussive brain injuries service members sustain.** This includes information on discharges related to and medical providers trained in these injuries, as well as efforts with allies and partners to better address these injuries.
- **Enhances efforts to mitigate exposure and help service members access care.** This includes retaliation protections for those who seek care; modifying existing weapons system to reduce blast exposure; updating and making publicly available blast overpressure thresholds and creating a waiver system for exceeding these thresholds; training high-risk service members to help them recognize exposure symptoms and creating strategies to mitigate their risk; and expanding the types of technologies in the Warfighter Brain Health Initiative pilot blast monitoring program.
- **Supports service member treatment** by establishing a Special Operations Comprehensive Brain Health and Trauma program, making the National Intrepid Center of Excellence (NICoE) a program of record and requiring DoD to provide childcare services to those seeking treatment there, and mandating training for medical and training personnel on blast overpressure and exposure and TBI.
- **Mandates GAO review on DoD efforts to address blast exposure**, protect service members from retaliation, and identify the most at-risk military occupational specialties.
- **Implements DoD Inspector General (IG) recommendations** from a 2023 [report](#) finding DoD does not consistently determine the care service members with TBI need.