



## **Sensory dysfunction and traumatic brain injury severity among deployed post-9/11 Veterans: A Chronic Effects Of Neurotrauma Consortium study**

### **Purpose**

To describe the prevalence of auditory, visual, vestibular, chemosensory and multiple sensory problems and explore their associations with traumatic brain injury (TBI) severity and injury mechanism among deployed Post-9/11 Veterans.

### **Participants**

Veterans were included if they had at least three years of Department of Veterans Affairs (VA) care between 2002 and 2014, with at least one year of care in 2007 or after when TBI screening became mandatory at the VA.

### **How was the study conducted?**

This retrospective observational study used Departments of Defense and Veterans Affairs diagnostic codes and administrative data.

### **Findings**

The odds for all types of sensory dysfunction were greater among those with any TBI relative to those with no TBI. The odds for auditory or multisensory problems were higher among those that indicated exposure to blast. In particular, exposure to quaternary blast injury (e.g. crush, respiratory and burn injuries) was associated with increased odds for auditory, visual, vestibular and multisensory problems.

### **Military Impact**

Sensory problems affect a substantial number of deployed Post-9/11 Veterans and are more common among those with TBI or with exposure to deployment-related blast exposure. Because sensory problems profoundly impact quality of life, their identification and providing enhanced education and therapy are vital tools to improve life after service for these relatively young Veterans.

*Alicia A. Swan, Jeremy T. Nelson, Terri K. Pogoda, Megan E. Amuan, Faith W. Akin & Mary Jo Pugh(2018) Sensory dysfunction and traumatic brain injury severity among deployed post-9/11 veterans: A Chronic Effects Of Neurotrauma Consortium Study, Brain Injury, DOI: [10.1080/02699052.2018.1495340](https://doi.org/10.1080/02699052.2018.1495340)*