



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Neuromuscular Control and Balance

Vestibular/Ocular Motor Screening: A Reliable Tool to Evaluate Mild Traumatic Brain Injury in a Military Clinic Setting

Mild traumatic brain injury (mTBI) from blast often causes dizziness, vertigo, and imbalance resulting from the injured brain's inability to integrate head and eye movements. The Vestibular/Ocular Motor Screening (VOMS) is a five-minute clinical screening tool developed at the University of Pittsburgh (Pittsburgh, PA), to identify and track recovery in Service members with mTBI from blast and other causes. The VOMS requires very limited equipment (a small stick with a 14-point font target on it), complements current assessment tools used by military medical personnel, and can be administered in both combat and non-combat environments. To determine if the VOMS can distinguish healthy Service members from those with blast and other mTBI, and track recovery, researchers at the University of Pittsburgh trained military medical personnel to use the VOMS using a modified Balance Error Scoring System (mBESS) training video. To date, nearly 200 baseline and post-injury VOMS tests have been conducted, and preliminary reliability of the tool in Service members has been established (*Kontos et al., 2018*). The VOMS provides a pathway to better diagnosis, determination of recovery, and earlier and more effective treatment; thereby, reducing the financial, personal, and societal burden to Service members from blast-related mTBI.

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REFERENCES:

Kontos AP, M. K., Thomasma E, Collins MW, Mucha A, Reeves V, Thomas D, Holland CL, Sparto PJ, Whitney S, Marchetti G, Furman J (2018). Reliability of the vestibular ocular motor screening (VOMS) tool in a military clinic setting. Paper presented at the Military Health System Research Symposium, Kissimmee, FL.

