

LIMBIC-CENC Clinical Care Monographs: **TBI and Co-occurring Conditions**

Key Finding: LIMBIC-CENC researchers found associations between traumatic brain injury (TBI) diagnoses and epilepsy,¹ hearing loss and tinnitus,² and other sensory disorders (e.g., visual, balance/dizziness).³ In all cases, the association was strongest for Moderate to Severe TBI, but still present for Mild TBI.

Perspective: The associations found between TBI and these other diagnoses are worrisome, especially for the common mild TBI; however, they should be considered tentative pending evidence from more rigorous, prospective, longitudinal studies.

Clinical Pearls:

- Regardless of epilepsy risk level, routine prophylaxis with antiepileptic medication is not warranted after TBI of any severity, with the possible exception of penetrating TBI.
- The care of Servicemembers and Veterans with TBI, even mild TBI, should include assessment for sensory problems, as identification is integral to facilitating positive long-term outcomes.

References:

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2. Swan AA, Nelson JT, Swiger B, Jaramillo CA, Eapen BC, Packer M, Pugh MJ: *Prevalence of hearing loss and tinnitus in Iraq and Afghanistan Veterans: A Chronic Effects of Neurotrauma Consortium study.* *Hear Res.* 2017 Jun;349:4-12. doi: 10.1016/j.heares.2017.01.013. Epub 2017 Jan 31. PMID: 28153668
3. Swan AA, Nelson JT, Pogoda TK, Amuan ME, Akin FW, Pugh MJ: *Sensory dysfunction and traumatic brain injury severity among deployed post-9/11 veterans: a chronic effects of neurotrauma consortium study.* *Brain Inj.* 2018;32(10):1197-1207. doi: 10.1080/02699052.2018.1495340. Epub 2018 Jul 19. PMID: 30024786

n.b.: The 'Perspectives' and 'Clinical Pearls' expressed are based on interpretation of findings from the described Long-term Impact of Military-related Brain Injury Consortium/Chronic Effects of Neurotrauma Consortium (LIMBIC-CENC) research studies and their assimilation with the extant literature. These views are endorsed by LIMBIC-CENC leadership but may vary across individual researchers. All findings involve Service Members (SMs), Veterans (Vs) or both.

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