# **CLINICAL PEARLS** | AUGUST 2024

Traumatic Brain Injury and Chronic Pain

Traumatic Brain Injury Center of Excellence

#### **KEY TAKEAWAY**

Chronic pain is defined as pain that persists or recurs for three months or longer. The extent to which chronic pain interferes with TBI recovery, job performance, and return to duty is influenced by the presence of other co-occurring symptoms.

## CURRENT PERSPECTIVE FOR THE MILITARY CLINICIAN

Evaluating and treating chronic pain after TBI is challenging due to its subjective nature. Post-traumatic headache is the most frequently reported type of chronic pain after a TBI, but pain in extracranial locations has also been reported. Evidence suggests that chronic pain can develop after TBI of any severity but is more common after mild TBI, and that multiple mild TBIs are associated with more severe pain than a single one. The co-occurrence of chronic pain, neuropsychiatric disorders (e.g., PTSD or depression), and TBI may worsen pain intensity, cognitive difficulties, sleep disturbances, and other symptoms.

## **CLINICAL PEARLS**

- Consider TBI as a risk factor for increased pain symptom reporting.
- Carefully document the location and severity of pain, as well as activities that exacerbate or alleviate the pain, during the initial TBI assessment and follow-up visits.
  - Numeric rating scales, such as the Defense and Veterans Pain Rating Scale (DVPRS 2.0), are preferred methods for assessing pain intensity.
  - Consider severe pain at the initial visit and comorbid psychological conditions as risk factors for chronic pain.
- Promote effective nonpharmaceutical treatments for managing pain, such as healthy sleeping habits, lightto-moderate physical activity, a healthy diet, mindfulness meditation, and psychosocial interventions (e.g., cognitive behavioral therapy).
- Consider acetaminophen or nonsteroidal anti-inflammatory medications for short-term pain relief and amitriptyline or S-adenosylmethionine for long-term treatment.
- Use a patient-centered holistic approach to managing chronic pain after TBI to best promote functional recovery and return to duty.

#### REFERENCES

- Military Health System. Pain Management Toolkit. Available from: <a href="https://www.health.mil/Military-Health-Topics/MHS-Toolkits/Toolkits/Pain-Management">https://www.health.mil/Military-Health-Topics/MHS-Toolkits/Toolkits/Pain-Management</a>
- Harrison-Felix C, Sevigny M, Beaulieu CL, et al. Characterization and Treatment of Chronic Pain After Traumatic Brain Injury-Comparison of Characteristics Between Individuals With Current Pain, Past Pain, and No Pain: A NIDILRR and VA TBI Model Systems Collaborative Project. *J Head Trauma Rehabil*. 2024;39(1):5-17.
- Laughter S, Khan M, Banaag A, Madsen C, Koehlmoos TP. Prevalence of Polytrauma Clinical Triad Among Active Duty Service Members. *Mil Med.* 2022;187(7-8):e856-e861.
- Department of Veterans Affairs & Department of Defense. VA/DOD Clinical Practice Guideline for Management and Rehabilitation of Post-Acute Mild Traumatic Brain Injury. Updated 2021. Available from: <a href="https://www.healthquality.va.gov/guidelines/rehab/mtbi/">https://www.healthquality.va.gov/guidelines/rehab/mtbi/</a>

