

LIMBIC-CENC clinical research findings from 2013 - 2021

Since 2013, the Long-Term Impact of Military-Relevant Brain Injury Consortium (LIMBIC) Chronic Effects of Neurotrauma Consortium (CENC) has enrolled more than 2,300 active duty and veteran service member participants from 21 nationwide recruitment sites.

Currently, 10 prospective, clinical research studies have been completed or are underway.

The central clinical investigation, the Prospective Longitudinal Study (PLS) is a 11-center longitudinal observational study of the short- and long-term effects of blast combat-related mild traumatic brain injuries (mTBI). The two other active clinical studies, examining imaging and fluid biomarkers of mTBI and related symptoms and disorders, complement and leverage the PLS.

What has been associated with mTBI?

INCREASE risk of having:

- All Neurosensory difficulties
- Complicated sleep
- Incidence of pain
- Cognitive dysfunction
- Behavioral dysfunction
- Overall symptom burden
- Healthcare costs
- Service-related disability
- Dementia
- Parkinson's Disease

Novel Biomarker and Neuroimaging findings:

- The LIMBIC-CENC Biomarker Study has found unique plasma and exosomal fluid biomarkers have been linked with mTBI history, number of mTBIs, and greater severity of post-concussive and post-traumatic stress symptoms.
- Unique findings on advanced Neuroimaging related to mTBI history and cognitive difficulties have also been discovered by the Neuroimaging Study.

A range of novel and supportive findings related to the short and long-term effects of all-severity TBI have been identified from the 14 LIMBIC-CENC research studies. These findings further emphasize the importance of comprehensive management of TBI and can enhance awareness of the long-term needs of individuals with TBI.

Areas under study

-  Fiscal and benefit data
-  Co-morbid diagnosis
-  Health economics outcomes
-  Clinical phenotypes
-  Short and long-term effects
-  Blast exposure
-  Repetitive injury
-  Neurodegeneration
-  Injury Biomarkers
-  Clinical symptoms