

What is Chronic Traumatic Encephalopathy (CTE)?

The definition

Chronic Traumatic Encephalopathy (CTE) is a degenerative brain disease found in athletes, military veterans, and others with a history of repetitive brain trauma.

The science



Research tells us CTE is caused by repetitive hits to the head sustained over a period of years. In CTE, a protein called tau misfolds and malfunctions, setting off a chain reaction that slowly spreads throughout the brain, killing brain cells. Most of what we know about CTE has come from the research of Dr. Ann McKee, director of the VA-BU-CLF Brain Bank.



The diagnosis



CTE can only be diagnosed after death through brain tissue analysis. While it cannot yet be diagnosed in living people, the symptoms of CTE can be treated by healthcare professionals. If you or a loved one need help managing life with suspected CTE please reach out to us at ConcussionFoundation.org/Helpline.

The symptoms



Mood and behavior symptoms more typically present in younger patients. They can include:

- Impulse control problems
- Aggression
- Mood swings
- Depression
- Paranoia
- Anxiety

Cognitive symptoms more commonly present later in life and can include:

- Short-term memory loss
- Confusion
- Impaired judgement
- Impaired organizational skills
- Dementia

The future



If you or your loved one is living with suspected CTE, it is important not to lose hope. Science is moving quickly to diagnose CTE in the living and help patients treat their symptoms. If you'd like to help accelerate CTE research by participating in studies or pledge your brain, visit PledgeMyBrain.org.