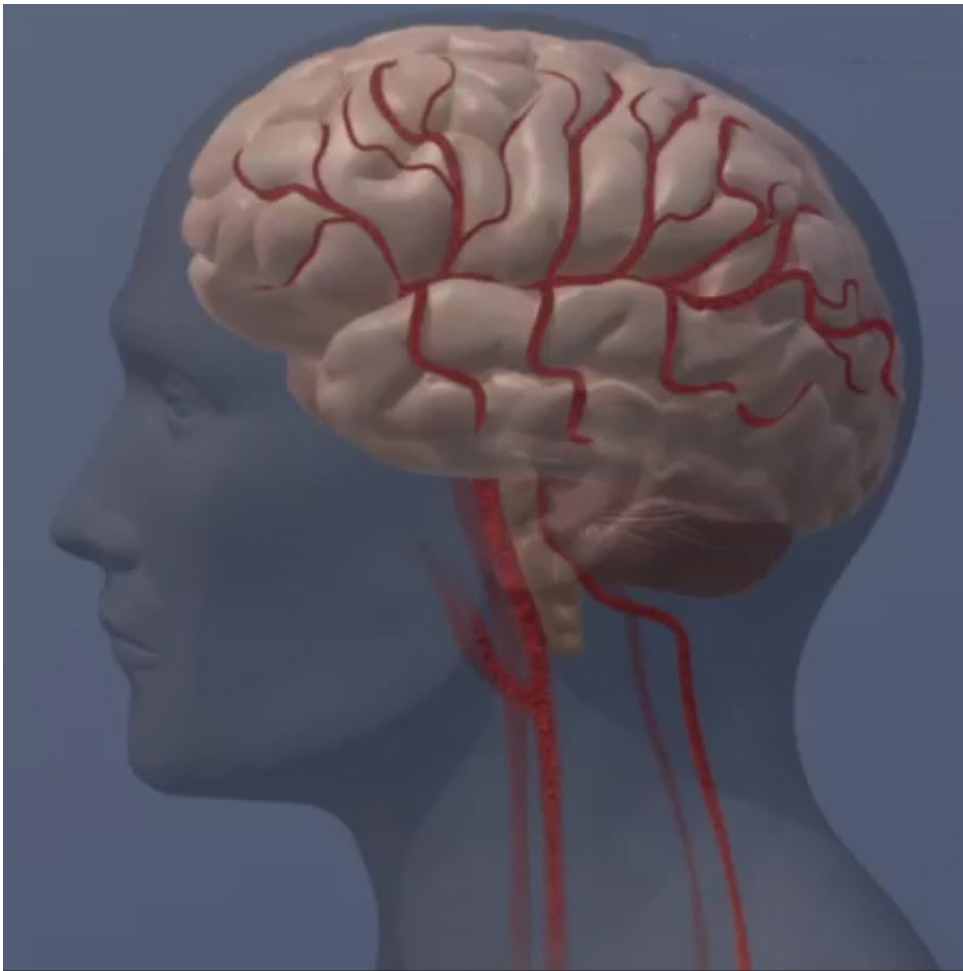


# Interpersonal abuse in early life may lead to concentration issues later in life

April 10 2017

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Credit: copyright American Heart Association

Does a history of abuse before the age of 18 affect later capacity to

concentrate and stay focused?

According to a new study Veterans with a history of physical or [sexual abuse](#) or witnessing family violence before the age of 18 have a reduced ability to concentrate compared to Veterans who were not abused.

The study, which appears in the journal *Brain and Behavior*, revealed that this failure to concentrate was associated with abnormal connectivity in the [brain](#), between the amygdala, a core region for emotion, and frontal areas that help maintain focus. Collectively, these findings offer a new perspective on the long-term impact of [psychological trauma](#) years, if not decades, after childhood.

Researchers from Boston University School of Medicine (BUSM) and the Translational Research Center for TBI and Stress Disorders at the VA Boston Healthcare System compared two groups of young Veterans. One group had a history of early life abuse, while the other did not. Both groups performed a concentration test while their brain activity was measured. The group that experienced [trauma](#) prior to 18 had worse concentration and abnormal communication between "emotional" regions (amygdala) and "attentional" regions of the brain (prefrontal cortex).

"Trauma during one's youth may not just cause difficulties with emotions later in life but may also impact day-to-day functioning like driving, working, education and relationships due to brain changes that stem from the trauma," explained senior author Michael Esterman, PhD, assistant professor of psychiatry at BUSM and associate director of the VA Boston Neuroimaging Center. "Our results suggest that early psychological interventions could result in better cognitive abilities as an adult."

According to the researchers this study suggests that inter-personal [abuse](#)

before 18 can have dramatic and long lasting effects on the development of the brain that is only now beginning to be understood.

Methodologically, this study is part of an exciting new era for brain imaging, where complex, but reliable patterns of brain connections can give insight into individual differences in clinical characteristics and cognitive abilities.

Provided by Boston University Medical Center

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