

# A rough childhood could stunt your brain's growth

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U.S. researchers say kids who have had adverse childhood experiences (ACEs), such as abuse or neglect, during their preschool years, can have stunted growth of some brain structures by the time they reach adolescence.

The researchers used data from a 15- year study that followed 211 preschool aged children through to young adults.

The study used brain imaging technology to measure the volume of different parts of the brain at different times during the children's development and found that children who had experienced the most ACEs had a smaller hippocampus (responsible for the processing and storage of short-term memory) and amygdala (responsible for emotions and mood) in late adolescence.

Timing is important, say the study's authors, with ACEs in [early childhood](#) having a greater impact on brain development than at any other time, indicating that early intervention could help alleviate these effects.

The impact of early traumatic experiences on the brain was also much less for children who had strong maternal support during their preschool and school age years.

**More information:** Joan L. Luby et al. Association of Timing of Adverse Childhood Experiences and Caregiver Support With Regionally Specific Brain Development in Adolescents, *JAMA Network Open* (2019). [DOI: 10.1001/jamanetworkopen.2019.11426](https://doi.org/10.1001/jamanetworkopen.2019.11426)

Provided by Washington University School of Medicine in St. Louis

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