

# About the CDC-Kaiser ACE Study

<https://www.cdc.gov/violenceprevention/aces/about.html#:~:text=The%20CDC%20Kaiser%20Permanente%20adverse,two%20waves%20of%20data%20collection.>

The CDC-Kaiser Permanente adverse childhood experiences (ACE) study is one of the largest investigations of childhood abuse and neglect and household challenges and later-life health and well-being.

The original ACE study was conducted at Kaiser Permanente from 1995 to 1997 with two waves of data collection. Over 17,000 Health Maintenance Organization members from Southern California receiving physical exams completed confidential surveys regarding their childhood experiences and current health status and behaviors.

More detailed information about the study can be found in the links below or in the article, "[Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults](#) external icon,".

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From the PolyVagal Institute. <https://www.youtube.com/watch?v=ZdIQRxwT1I0>

## **Link between Childhood Adversity and Health Outcomes**

20 years ago a large study by Kaiser and the CDC showed for the first time the link between traumatic events in childhood (they called it "Adverse Childhood Events" or "ACEs") and long term effects on health. In that study of 17,000 persons 2/3 of them reported at least 1 traumatic event. Those reporting 4 or more events had an increase risk of developing Heart Disease, Cancer, Diabetes, Chronic Lung Disease, Obesity, Substance Abuse, Depression and more.

The link between childhood trauma and adult health outcomes is related to how chronic stress effects the Autonomic Nervous System (ANS). The ANS is the part of our nervous system that controls automatic functions like breathing, heart rate and digestion. And it also is responsible for the fight/flight survival response when we are faced with danger. When that survival system gets stuck in the "on" position the ANS constantly sends stress hormones throughout the body that over time take their toll on all organ systems and lead to inflammation, cellular malfunction, and disease.

[https://www.thelancet.com/journals/lanam/article/PIIS2667-193X\(22\)00166-1/fulltext#:~:text=Children%20exposed%20to%20low%20SES,SES%20and%20absence%20of%20abuse.](https://www.thelancet.com/journals/lanam/article/PIIS2667-193X(22)00166-1/fulltext#:~:text=Children%20exposed%20to%20low%20SES,SES%20and%20absence%20of%20abuse.)

### **ACE score and Early Mortality**

The original study identified 10 distinct adverse events that were associated with long term health outcomes. Since that study, it has been recognized that many more common occurrences in childhood can disrupt the course of development and well-being. These include:

- foster care,
- parental or sibling death,
- changes in parents' marital status, and
- childhood illness, and
- broader social determinants of health such as poverty, receipt of welfare, poor housing conditions, and discrimination.

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#### The ACE Pyramid

The ACE Pyramid represents the conceptual framework for the ACE Study. The ACE study has uncovered how ACEs are strongly related to development of risk factors for disease, and well-being throughout the life course.

