

Chapter 4:
The ACE Study
(Adverse Childhood Experiences)

What is the Adverse Childhood Experience Study?

The ACE Study is an ongoing collaboration between the Centers for Disease Control and Prevention and Kaiser Permanente. Led by Co-principal Investigators Robert F. Anda, MD, MS, and Vincent J. Felitti, MD, the ACE Study is perhaps the largest scientific research study of its kind, analyzing the relationship between multiple categories of childhood trauma (ACEs), and health and behavioral outcomes later in life.

www.Acestudy.org

What are Adverse Childhood Experiences?

- Recurrent physical abuse
- Recurrent emotional abuse
- Contact sexual abuse
- An alcohol and/or drug abuser in the household
- An incarcerated household member
- Someone who is chronically depressed, mentally ill, institutionalized, or suicidal
- Mother is treated violently
- One or no parents
- Emotional or physical neglect

The ACE Score correlates to health and other problems including:

- Social, emotional, and cognitive impairments
- Increased risk of unhealthy behaviors (smoking, alcoholism, obesity)
- Risk of violence or re-victimization
- Disease, disability and premature mortality

Robert Anda, MD, MS
Co-Principal Investigator
Adverse Childhood Experiences (ACE) Study

What's Your ACE Score?

Fill out the questionnaire on the following page to find out.

Finding Your ACE Score

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household **often or very often**...
Swear at you, insult you, put you down, or humiliate you?
or
Act in a way that made you afraid that you might be physically hurt?
Yes No If yes enter 1 _____
2. Did a parent or other adult in the household **often or very often**...
Push, grab, slap, or throw something at you?
or
Ever hit you so hard that you had marks or were injured?
Yes No If yes enter 1 _____
3. Did an adult or person at least 5 years older than you **ever**...
Touch or fondle you or have you touch their body in a sexual way?
or
Attempt or actually have oral, anal, or vaginal intercourse with you?
Yes No If yes enter 1 _____
4. Did you **often or very often** feel that ...
No one in your family loved you or thought you were important or special?
or
Your family didn't look out for each other, feel close to each other, or support each other?
Yes No If yes enter 1 _____
5. Did you **often or very often** feel that ...
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
or
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
Yes No If yes enter 1 _____
6. Were your parents **ever** separated or divorced?
Yes No If yes enter 1 _____
7. Was your mother or stepmother:
Often or very often pushed, grabbed, slapped, or had something thrown at her?
or
Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?
or
Ever repeatedly hit at least a few minutes or threatened with a gun or knife?
Yes No If yes enter 1 _____
8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
Yes No If yes enter 1 _____
9. Was a household member depressed or mentally ill, or did a household member attempt suicide?
Yes No If yes enter 1 _____
10. Did a household member go to prison?
Yes No If yes enter 1 _____

Now add up your "Yes" answers: _____ This is your ACE Score.

Adverse Childhood Experiences (ACE) Study Data & Facts

Initial Study:

- Conducted in California in 1995 – 1997
- 17,337 participants
 - Gender
 - 54 % female
 - 46% male
 - Ethnic Makeup
 - White = 75%
 - Hispanic/Latino = 11 %
 - Asian/Pacific Islander = 7%
 - African American = 5 %
 - Other = 2%
 - Age (years):

▪ 19 -29	5.3%
▪ 30-39	9.8%
▪ 40 -49	18.6%
▪ 50 -59	19.9%
▪ Over 60	46.4%
 - Education:

▪ Non HS graduate	7.2%
▪ HS graduate	17.6%
▪ Some college	35.9%
▪ College grad or higher	39.3%
- Study targeted mainstream, middle class patients in a weight-loss clinic
- Study determined that:
 - Adverse Childhood Experiences (ACEs) well concealed but unexpectedly common
 - ACEs have a profound negative effect on adult health & well-being a half century later
 - Are a prime determinant of adult health status in the US
 - All patients should be screened for a trauma history

Replication Study

- Conducted in 5 states in 2009
 - AR, LA, NM, TN & WA
- 26,229 adults participated
 - Gender distribution
 - Males 9,474
 - Females 16,755
 - Race/Ethnicity
 - Caucasian, non-Hispanic 19,770
 - Black, non-Hispanic 2,662
 - Hispanic 2,217
 - Other, non-Hispanic 1,381
 - Age demographics
 - 18 -24 764
 - 25-34 2,103
 - 35-44 3,388
 - 45-54 11,504
 - 55 and older 8,336
 - Education
 - Non HS graduate 2,646
 - HS graduate 7,379
 - College credits 16,175
 - State Breakdown
 - Arkansas 3,558
 - Louisiana 8,147
 - New Mexico 5,271
 - Tennessee 2,327
 - Washington 6,926
- Approximately 59% of respondents reported a score of one or more.
- These are similar to the findings in the Kaiser-CDC ACE study

ACE Scores Explained:

- The lower the ACE score, the lower the risk of adult health issues
 - Score of 0 – no trauma whatsoever in your background
 - Score of 1 – some trauma with some risk
 - Score of 2 – trauma with increased risk of adult health issues
 - Score of 3 – higher increased risk of adult health issue, including early mortality
 - Score of 4 or higher – definite risk of adult health issues and increased early mortality
- ACE scores, by definition, occur before age 18 and need to only occur once for the trauma to be lifelong

ACE scores reflect the strong influence of childhood trauma on:

- adolescent health
- reproductive health
- smoking
- alcohol abuse
- illicit drug abuse
- sexual behavior
- mental health
- risk of re-victimization
- stability of relationships, homelessness
- performance in the workforce