



## Adverse Childhood Experiences (ACEs)

One of the most visible conceptualizations about the impact of child abuse and other adversities arose from the Adverse Childhood Experiences study conducted by Vincent Felitti and Robert Anda.<sup>1,2</sup> **Ten categories of childhood adversity were identified: sexual abuse, physical abuse, psychological abuse, emotional neglect, physical neglect, alcoholism or drug use in the home, divorce or loss of biological parent, depression or mental illness in home, mother treated violently, or imprisoned household member.** Not only were the individual adversities associated with worse health outcomes later in life, but the accumulation of categories of adversities dramatically and repeatedly increased risks for a wide variety of conditions.

A major innovation in thinking about the impact of maltreatment was the creation of the Adverse Childhood Experience (ACE) score. Instead of trying to ascertain how many times a child was sexually or physically abused, they assigned a score of 0 (did not occur in childhood) or 1 (it did). Thus, being sexually abused once or a hundred times equals a score of 1. Although multiple experiences within a category no doubt worsen outcome, the ACE score allows a summation across categories. The ACEs Study has shown that the higher the score (ie, the more ACEs an individual suffers), the higher the chance that person will experience risky health behaviors, chronic health conditions, low life potential, and early death. ACEs include physical, emotional, and sexual abuse, neglect, and household violence. Chronic health conditions associated with ACEs include chronic obstructive pulmonary disease, ischemic heart disease, and liver disease.\*

## What are sexual, physical, and psychological forms of abuse?

### SEXUAL



Sexual abuse is any completed or attempted (noncompleted) sexual act, sexual contact with, or exploitation (ie, noncontact sexual interaction).

### PHYSICAL



Physical abuse is any nonaccidental physical injury to the child, including striking, kicking, burning, biting, or any action that results in a physical impairment of the child.

### PSYCHOLOGICAL



Psychological abuse is a pattern of behavior that impairs a child's emotional development or sense of self-worth.

\*Excerpts taken from Chapters 14 and 19 of *Medical Response to Child Sexual Abuse, Second Edition*.

1. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the adverse childhood experience (ACE) study. *Am J Prev Med.* 1998;14(4):245-258.

2. Felitti VJ, Anda RF. The lifelong effects of adverse childhood experiences. In: Chadwick DL, Giardino AP, Alexander R, Thackeray JD, Esernio-Jenssen D, eds. *Chadwick's Child Maltreatment: Sexual Abuse and Psychological Maltreatment.* Vol 2. 4th ed. Saint Louis, MO: STM Learning, Inc; 2014:203-215.

3. Centers for Disease Control and Prevention. About the CDC-Kaiser ACE study. Centers for Disease Control and Prevention Web site. <https://www.cdc.gov/violenceprevention/acesstudy/about.html>. Updated June 14, 2016. Accessed January 24, 2019.