



Adverse Childhood Experiences (ACEs)

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What are ACEs?

ACEs, or Adverse Childhood Experiences, are traumatic experiences that can have a profound impact on a child's developing brain and body with lasting impacts on a person's health and livelihood throughout her lifetime.

[\(CDC, 2016\)](#)



CDC- Kaiser Permanente ACE study

- From 1995- 1997 Kaiser Permanente created a study that looked at the impact of childhood abuse and neglect on later life health and well-being
- Over 17,000 HMO members in California receiving physical exams completed surveys regarding both their past experiences and their current health and behaviors
- CDC continued to monitor life impacts by following participants looking at mortality rate and wellness

[\(CDC, 2016\)](#)



Study looked at three categories of adverse experiences

1. Abuse
2. House Challenges
3. Neglect

[\(CDC, 2016\)](#)



1) Abuse

- **Emotional abuse:** A parent, stepparent, or adult living in your home swore at you, insulted you, put you down, or acted in a way that made you afraid that you might be physically hurt.
- **Physical abuse:** A parent, stepparent, or adult living in your home pushed, grabbed, slapped, threw something at you, or hit you so hard that you had marks or were injured.
- **Sexual abuse:** An adult, relative, family friend, or stranger who was at least 5 years older than you ever touched or fondled your body in a sexual way, made you touch his/her body in a sexual way, attempted to have any type of sexual intercourse with you.



2) Household Challenges

- **Mother treated violently:** Your mother or stepmother was pushed, grabbed, slapped, had something thrown at her, kicked, bitten, hit with a fist, hit with something hard, repeatedly hit for over at least a few minutes, or ever threatened or hurt by a knife or gun by your father (or stepfather) or mother's boyfriend.
- **Household substance abuse:** A household member was a problem drinker or alcoholic or a household member used street drugs.
- **Mental illness in household:** A household member was depressed or mentally ill or a household member attempted suicide.
- **Parental separation or divorce:** Your parents were ever separated or divorced.
- **Criminal household member:** A household member went to prison.



3) Neglect

- **Emotional neglect:** Someone in your family helped you feel important or special, you felt loved, people in your family looked out for each other and felt close to each other, and your family was a source of strength and support.²
- **Physical neglect:** There was someone to take care of you, protect you, and take you to the doctor if you needed it², you didn't have enough to eat, your parents were too drunk or too high to take care of you, and you had to wear dirty clothes.



ACE score

- Participants were given an “ACE” score of 0-10 based on childhood experiences
- Based on experiences from age 0-18
- ACES are common! Almost $\frac{2}{3}$ of the study participants reported at least 1 ACE and more than 1 in 5 reported 3 or more ACEs
- Impacts all people regardless of race, geography, income or education

[\(CDC, 2016\)](#)



Findings :

As the number of ACEs increases so does the risk for the following*:

- Alcoholism and alcohol abuse
- Chronic obstructive pulmonary disease
- Depression
- Fetal death
- Health-related quality of life
- Illicit drug use
- Ischemic heart disease
- Liver disease
- Poor work performance
- Financial stress
- Risk for intimate partner violence
- Multiple sexual partners
- Sexually transmitted diseases
- Smoking
- Suicide attempts
- Unintended pregnancies
- Early initiation of smoking
- Early initiation of sexual activity
- Adolescent pregnancy
- Risk for sexual violence
- Poor academic achievement

ACES can have lasting effects on....



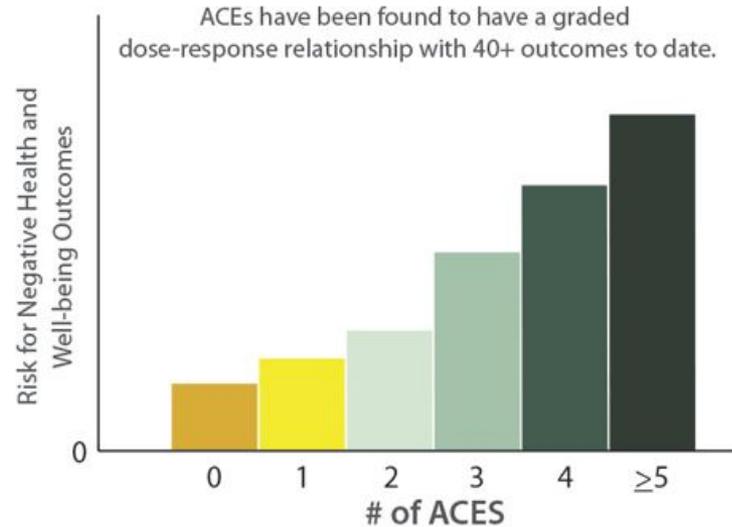
Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)



Behaviors (smoking, alcoholism, drug use)



Life Potential (graduation rates, academic achievement, lost time from work)



*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.

Figure 1: Association between ACEs and Negative Outcomes ([CDC, 2016](#))



ACEs

[Resilience Clip](#)

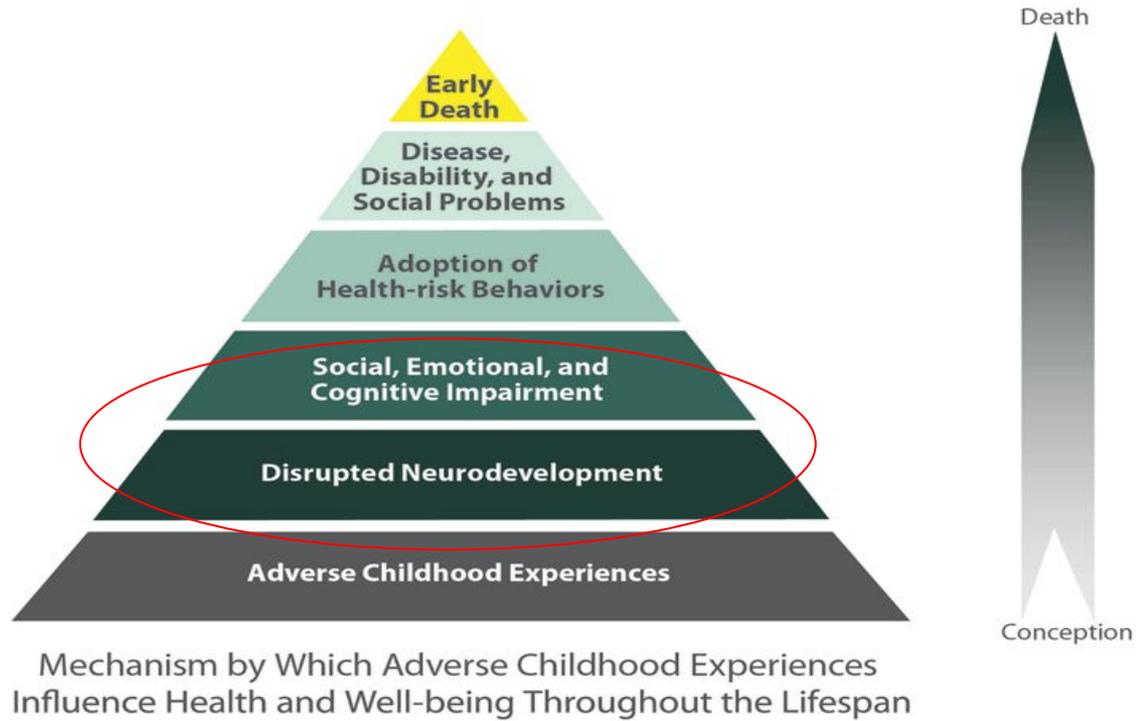


Figure 2 : ACEs Pyramid ([CDC, 2016](#))



ACEs → TOXIC STRESS

- “ Research on biology of stress now shows that healthy development can be derailed by excessive or prolonged activation of stress response systems in the body and brain. Such **toxic stress** can have damaging effects on learning, behavior, and health across the lifespan.”
 - (Center on the Developing Child; Harvard University, 2018)



Toxic Stress

- Excessive activation of the stress response system (as from ACEs)
 - Impacts Brain Development
 - Immune system
 - Metabolic regulatory systems
 - Cardiovascular systems

(Example car constantly revving)

(Center on the Developing Child, 2018)



Toxic Stress and Education

- Toxic stress Impacts:
 - memory systems
 - ability to think
 - Ability to organize multiple priorities (executive function)
 - attention and behavior
 - Regulating Emotions
 - Reading social cues
 - Follow directions

(Illinois ACES Repsonse Collaborative, n.d)



ACEs are not Destiny!

People who have experienced significant adversity (or many ACEs) are **not irreparably damaged!** “ (Center on the Developing Child, 2018, n.p)

Center on the Developing Child states that the best way to mitigate trauma is:

1. Supportive healthy and responsive relationships for children and adults
2. Strengthen core skills (executive function and self regulation)
3. Reduce stress in children and families (increase access to basic resources)



Trauma informed Schools

- Training and awareness for teachers and staff around trauma and the impact of trauma on students' behavior, ability to build relationships, ability to manage internal states
 - From “what is wrong with this student” to “what happened to this student”
 - What are the students' needs?
- Social Emotional learning
- Access to mental health supports

<http://traumaawareschools.org/articles/9563>

(Kaufman, 2013) Trauma informed school. <http://traumaawareschools.org/articles/9563>



More Resources

<https://acestoohigh.com/>

<https://dmh.mo.gov/healthykids/providers/trauma.html>

<http://maineaces.org/wp/>

<https://www.cdc.gov/violenceprevention/acestudy/index.html>

<http://traumaawareschools.org/traumaInSchools>

[Videos from Center on the Developing Child](#) (Harvard University)

<https://centerforyouthwellness.org/health-impacts/>



References

American Academy of Pediatrics (2018) *ACEs and Toxic Stress*. Retrieved from <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/resilience/Pages/ACEs-and-Toxic-Stress.aspx>

ACE Response (2018). *What is an ACE?* Retrieved from http://www.aceresponse.org/who_we_are/ACE-Study_43_pg.htm

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Center on the Developing Child: Harvard University (2018) *ACEs and Toxic Stress; Frequently Asked Questions*. Retrieved from: <https://developingchild.harvard.edu/resources/aces-and-toxic-stress-frequently-asked-questions/>



References

Center on the Developing Child: Harvard University (2018) *Three Principals to Improve Outcomes for Children and Families*. Retrieved from: <https://developingchild.harvard.edu/resources/three-early-childhood-development-principles-improve-child-family-outcomes/#strengthen-skills>

Illinois ACES Response Collaborative (n.d) *Education Brief: ACEs for Educators and Stakeholders*. Retrieved from <http://www.hmprg.org/wp-content/themes/HMPRG/backup/ACEs/Education%20Policy%20Brief.pdf>

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