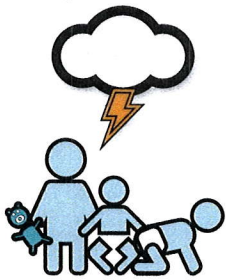
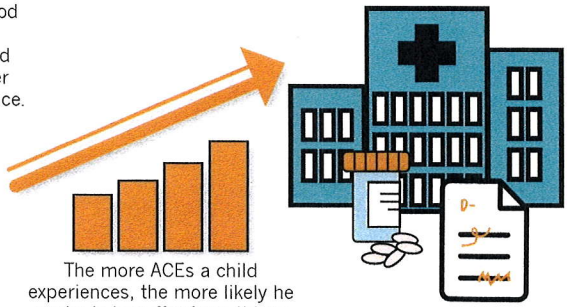
WHAT ARE ACEs?

AND HOW DO THEY RELATE TO TOXIC STRESS?

"ACEs" stands for "Adverse Childhood Experiences." These experiences can include things like physical and emotional abuse, neglect, caregiver mental illness, and household violence.

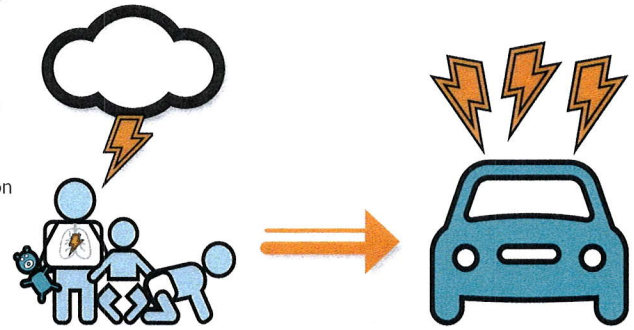




The more ACEs a child experiences, the more likely he or she is to suffer from things like heart disease and diabetes, poor academic achievement, and substance abuse later in life.

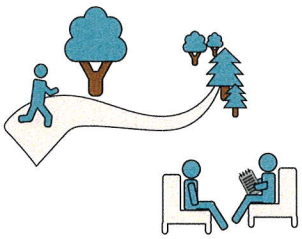
TOXIC STRESS EXPLAINS HOW ACEs "GET UNDER THE SKIN."

Experiencing many ACEs, as well as things like racism and community violence, without supportive adults, can cause what's known as toxic stress. This excessive activation of the stress-response system can lead to long-lasting wear-and-tear on the body and brain.



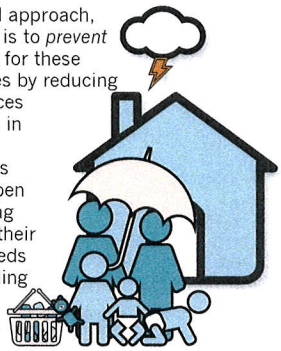
The effect would be similar to revving a car engine for days or weeks at a time.

WE CAN REDUCE THE EFFECTS OF ACEs AND TOXIC STRESS.



For those who have experienced ACEs, there are a range of possible responses that can help, including therapeutic sessions with mental health professionals, meditation, physical exercise, spending time in nature, and many others.

The ideal approach, however, is to *prevent* the need for these responses by reducing the sources of stress in people's lives. This can happen by helping to meet their basic needs or providing other services.



Likewise, fostering strong, responsive relationships between children and their caregivers, and helping children and adults build core life skills, can help to buffer a child from the effects of toxic stress.

ACEs affect people at all income and social levels, and can have serious, costly impact across the lifespan. **No one who's experienced significant adversity (or many ACEs) is irreparably damaged**, though we need to acknowledge trauma's effects on their lives. By reducing families' sources of stress, providing children and adults with responsive relationships, and strengthening the core life skills we all need to adapt and thrive, we can prevent and counteract lasting harm.

Center on the Developing Child HARVARD UNIVERSITY

Learn more about ACEs from the Centers for Disease Control and Prevention.

For more information: https://developingchild.harvard.edu/ACEs

ACE Test

Take the ACE Test, then let's learn what it does and does NOT mean. For each "yes" answer, add 1. The total number at the end is your cumulative number of ACEs.

Before your 18th birthday:

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? Y or N
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? Y or N
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? Y or N
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? Y or N
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? Y or N
6. Were your parents ever separated or divorced? Y or N

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 over at least a few minutes or threatened with a gun or knife? Y or N

8. Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs? Y or N

9. Was a household member depressed or mentally ill, or did a household member attempt suicide? Y or N

10. Did a household member go to prison? Y or N

What are ACEs?

The term "ACEs" is an acronym for Adverse Childhood Experiences. It originated in a groundbreaking study conducted in 1995 by the Centers for Disease Control and the Kaiser Permanente health care organization in California. In that study, "ACEs" referred to three specific kinds of adversity children faced in the home environment—various forms of physical and emotional abuse, neglect, and household dysfunction. The key findings of dozens of studies using the original ACEs data are: (1) ACEs are quite common, even among a middle-class population: more than two-thirds of the population report experiencing one ACE, and nearly a quarter have experienced three or more. (2) There is a powerful, persistent correlation between the more ACEs experienced and the greater the chance of poor outcomes later in life, including dramatically increased risk of heart disease, diabetes, obesity, depression, substance abuse, smoking, poor academic achievement, time out of work, and early death.

How do ACEs relate to toxic stress?

ACEs research shows the correlation between early adversity and poor outcomes later in life. Toxic stress explains how ACEs "get under the skin" and trigger biological reactions that lead to those outcomes. In the early 2000s, the National Scientific Council on the Developing Child coined the term "toxic stress" to describe extensive, scientific knowledge about the effects of excessive activation of stress response systems on a child's developing brain, as well as the immune system, metabolic regulatory systems, and cardiovascular system. Experiencing ACEs triggers all of these interacting stress response systems. When a child experiences multiple ACEs over time—especially

without supportive relationships with adults to provide buffering protection—the experiences will trigger an excessive and long-lasting stress response, which can have a wear-and-tear effect on the body, like revving a car engine for days or weeks at a time.

Importantly, the Council also expanded its definition of adversity beyond the categories that were the focus of the initial ACE study to include community and systemic causes—such as violence in the child's community and experiences with racism and chronic poverty—because the body's stress response does not distinguish between overt threats from inside or outside the home environment, it just recognizes when there *is* a threat, and goes on high alert.

What is trauma, and how does it connect to ACEs and toxic stress?

While trauma has many definitions, typically in psychology it refers to an experience of serious adversity or terror—or the emotional or psychological *response* to that experience. **Trauma-informed care** or services are characterized by an understanding that problematic behaviors may need to be treated as a result of the ACEs or other traumatic experiences someone has had, as opposed to addressing them as simply willful and/or punishable actions.

What can we do to help mitigate the effects of ACEs?

People who have experienced significant adversity (or many ACEs) are not irreparably damaged. There is a spectrum of potential responses to ACEs and their possible chain of developmental harm that can help a person recover from trauma caused by toxic stress.

More ACEs Resources

- **Centers for Disease Control and Prevention**: More about the original ACEs study and subsequent research.
- **ACEs Too High**: A site focused on news and research around ACEs.
- **Substance Abuse and Mental Health Services Administration**: Information on trauma-informed approaches and trauma-specific interventions.

- At the most intensive end of the spectrum are therapeutic interventions, ranging from in-patient treatment to regular sessions with a mental health professional, which are designed specifically to deal with serious trauma.
- Trauma-informed care or practice is less intensive, but affects how practitioners in a range of fields, such as social work, medicine, and education, work with people who have experienced toxic stress, and reflects an awareness of the harm that has occurred and takes that into account. There are also many less-intensive practices that can help individuals reduce the effects of stress—from meditation and breathing exercises, to physical exercise and social supports.

- ACEs-based screening and referral is an increasingly common approach, in which individuals are given an ACE score based on a brief survey of their own personal history of ACEs. This can indicate a general, non-specific sense of increased risk based on population-level probabilities, but it cannot predict accurately how any one individual will fare. In other words, a high ACE score can serve as a rough first screener to identify people who may benefit from services, but it cannot tell you what specifically you are at risk for, nor what to do about it.
- The ideal approach to ACEs is one that *prevents* the need for all levels of services: by reducing the sources of stress in people's lives, whether basic needs like food, housing, and diapers, or more entrenched sources of stress, like substance abuse, mental illness, violent relationships, community crime, discrimination, or poverty. Supporting responsive relationships with a parent or caregiver can also help to buffer a child from the effects of stress, and helping children *and* adults build their core life skills—such as planning, focus, and self-control—can strengthen the building blocks of resilience. These three principles—reducing stress, building responsive relationships, and strengthening life skills—are the best way to prevent the long-term effects of ACEs.

Retrieved from:
https://developingchild.harvard.edu/media-coverage/take-the-ace-quiz-and-learn-what-it-does-and-doesnt-mean/

Let's take a minute to recap what the ACE Test does and doesn't mean. The quiz is a helpful tool for raising awareness about the potential impact of ACEs. But it's important to remember all the things this quiz doesn't take into account. First, there are many experiences that could be traumatic for children that the quiz doesn't ask about—community violence, racism, other forms of discrimination, natural disasters, housing insecurity. That means answering all the questions on the ACE quiz will not give a full picture of the adversity a child has faced – and thus would not be a true indicator of possible risk—nor a full picture of the possible solutions communities should consider.

Second, everyone is different, and adverse experiences in childhood affect each child differently. Just because a person has experienced several ACEs does not mean that later social, emotional, or health problems are inevitable. Some children develop resilience – the ability to overcome serious hardship – while others do not. Genetic factors also play a role, in that some children are predisposed to be more sensitive to adversity than others. And the most common factor among children who show resilience is at least one stable and responsive relationship with a supportive adult.

The ACEs quiz gives no insight into whether an individual child might be more or less sensitive to adversity and asks no questions about whether there may have been any protective relationships in place to help buffer the child from stress. So the ACEs quiz can only give insight into who might be at risk—not who is at risk—for certain later-life challenges. In this series of three short videos, you can learn more about what resilience is, the science behind it, and how it's built.

What's Missing?

- **Stressors outside the household** (e.g., violence, poverty, racism, other forms of discrimination, isolation, chaotic environment, lack of services)
- **Protective factors** (e.g., supportive relationships, community services, skill-building opportunities)
- **Individual differences** (i.e., not all children who experience multiple ACEs will have poor outcomes and not all children who experience no ACEs will avoid poor outcomes—a high ACEs score is simply an indicator of greater risk)

For more:

March 2, 2015

Publication: NPR

Featured Expert: Jack P. Shonkoff

Link: http://www.npr.org/sections/health-shots/2015/03/02/387007941/take-the-ace-quiz-and-learn-what-it-does-and-doesnt-mean

An ACE score is a tally of different types of abuse, neglect, and other adverse childhood experiences. A higher score indicates a higher risk for health problems later in life. This NPR story helps people evaluate their ACE score, and quotes Center Director Jack P. Shonkoff, who notes that building resilience can help people do well despite high ACE scores. Learn more about what ACEs are and how they relate to toxic stress.

Retrieved from:
https://developingchild.harvard.edu/media-coverage/take-the-ace-quiz-and-learn-what-it-does-and-doesnt-mean/