

Understanding Adverse Childhood Experiences (ACEs)

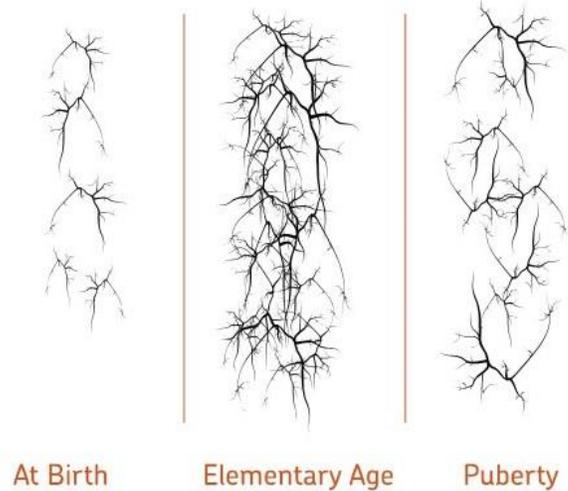
Louisiana ACE Educator Program

Adverse Childhood Experiences (ACEs) is the term given to describe all types of abuse, neglect, and other traumatic childhood experiences. The landmark Kaiser ACE Study scientifically links the short and long term effects of these experiences during development to increased risk of physical, mental, and behavioral problems later in life. The scope of the ACE Study, combined with its health and economic implications, make it an ideal starting point for collaborative efforts between diverse people, organizations, and service sectors working to improve health and well-being at every age.

Brain Development

The wiring of the brain is experience-dependent.

- As we grow and begin to experience the world around us, our brain cells form more connections. These connections are maintained and strengthened through use and are dissolved if they are not used.
- When our experiences cause continued production of stress chemicals (cortisol), those chemicals can become toxic to brain cells, leading to changes in brain structure and function. This is called toxic stress.



No matter what our experience, our brain works to adapt in ways to help us survive in our environment.

The people whose brains adapt to dangerous and stressful environments are more likely to survive when life is tough; those whose brains adapt to a safe environments are more likely to be prepared to meet society's expectations in peaceful times.

The brain develops in a specific order, from most primitive to most advanced.

As the brain develops during childhood, there are sensitive periods for each brain region when the size and function of the region are most affected by experience, both good and bad.

Depending on when toxic stress occurs during childhood, it can affect:

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| • Hearing | • Perception of social cues and facial expressions |
| • Coordination | |
| • Language development | • Ability to integrate rational ideas when in a highly emotional state. |

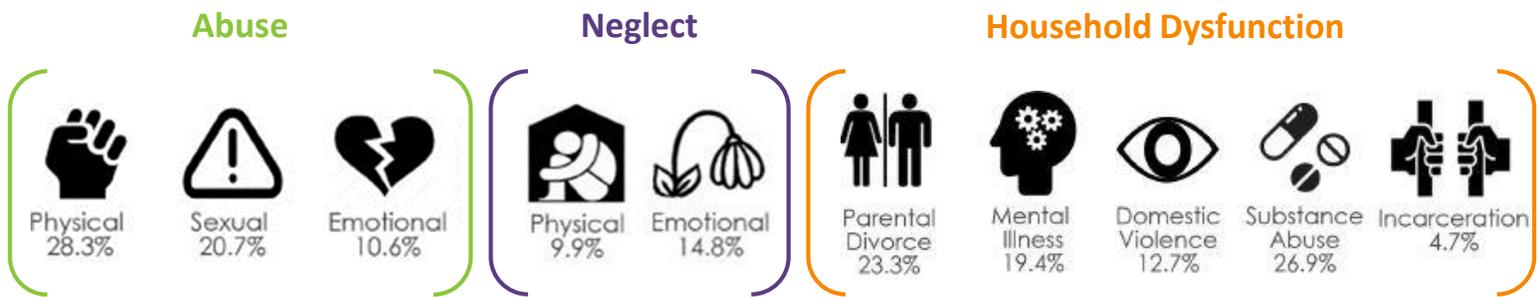
Brain development during childhood can also promote lifelong resilience

Toxic stress can affect brain interaction with body systems leading to disease, disability and social/relational problems throughout life. However, the developing brain is sensitive to all kinds of experience, so childhood is also a window of opportunity for building resilience.

The ACE Study

The ACE Study takes a broad public health perspective on the effects of multiple forms of childhood adversity on the health and wellbeing of the population as a whole. The ACE Study is designed to help us understand how Adverse Childhood Experiences influence human development in predictable ways.

The study looked at ten categories of childhood adversity:



Study findings include:

- **ACEs are common:** nearly two-thirds of participants reported at least one ACE
- **ACEs tend to cluster:** 87% of participants with one ACE had additional ACEs
- **There is a “dose-response” relationship between the ACE Score and risk of health and social problems.** As the ACE Score goes up in a population, the percent of people with these problems also goes up.

Examples of ACE Attributable Problems		
• Heart disease	• Chronic lung disease	• Stroke
• Diabetes	• HIV and STDs	• Lung Cancer
• Liver disease	• Suicide	• Injuries

A large percentage of each of these problems, among others, are attributable to ACEs. This presents an enormous opportunity for prevention.

Preventing future generations from accumulating ACEs will lead to reductions in all ACE-attributable problems.

Protective Systems Promote Resilience

Three protective systems interact and guide positive adaptation:

1. Individual capabilities (positive view of one’s life, self-efficacy, and self-regulation)
2. Attachment and belonging with caring and competent people
3. Protective community, faith, and cultural processes.

These three systems are interrelated: people do best when they are living in flourishing families and communities.

The ACE Study provides a discovery – a common framework and language – that we can use to profoundly improve the health and well-being of our society now and for generations to come. When we spread the message about ACEs, we are working to create a common language to talk about childhood trauma and its effects, allowing more people to join the conversation. The hope is that with new knowledge and new ways of looking at things, we can start changing the actions we take in our everyday lives leading to larger changes in and across communities.