

# The effects of **Brain** Trauma

# ACE

*The Impact of Early Life Trauma on Health and Disease*

## ADVERSE CHILDHOOD EXPERIENCES

*Adverse Childhood Experiences (ACEs) is the term given to describe all types of abuse, neglect, and other traumatic experiences that occur to individuals under the age of 18.*

**In the last twenty years, new studies on the brain are giving brain researchers a better understanding of how fear and trauma influence the adult brain, and more recently, the developing brain.** It is becoming increasingly clear that experiences in childhood have a greater impact on brain development from ages 0-5, than experiences later in life. In fact, by age 3, the brain has reached 90% of its adult size. Because of this, experiences in childhood define the adult.

What we know is that all experiences change the brain, good and bad. The brain is designed to change in response to patterned, repetitive experiences. When a child repeatedly experiences fear and trauma this changes the brain. Manageable levels of stress are normal and growth promoting. However, when a child is exposed to severe, frequent and persistent stress, especially without the support of a loving, nurturing adult, it can greatly alter the body's stress management system and brain architecture. This type of stress is called toxic stress. Toxic stress is often caused by adverse

### **Protective Factors That Build Resilience Include:**

- Caring relationships with parents or extended family members
- Good health & history of adequate development
- Good peer relationships
- Hobbies & interests
- Above average intelligence
- Positive disposition
- Active Coping style
- Positive self-esteem
- Good social skills
- Internal focus of control
- Balance between seeking help & seeking autonomy

*The landmark Kaiser ACE Study examined the relationships between these experiences during childhood and reduced health and well-being later in life.*

childhood experiences such as child abuse, neglect, and repeated exposure to violence in the home. Early stress makes the brain less resilient to the effects of later stress.

A child's ability to trust and form secure relationships in negatively impacted by exposure to toxic stress or trauma. This effect may be even stronger when a child suffers trauma at the hands of an adult who is supposed to be protecting and caring for the child.

The presence of "protective factors", particularly safe, stable and nurturing relationships, can often lessen the consequences of early childhood adversity. Even the negative consequences of toxic stress can be lessened with the support of caring adults and appropriate support, which can help return a child's stress response back to normal. Resilience, or the ability to successfully adapt in the presence of adversity, is more likely when a person has more of the protective factors listed at the bottom of this page.

*Source: [Wisconsinaces.org](http://Wisconsinaces.org)*

