

# STRESS & EARLY BRAIN GROWTH

## Understanding Adverse Childhood Experiences (ACEs)

### What are ACEs?

ACEs are serious childhood traumas -- a list is shown below -- that result in toxic stress that can harm a child's brain. This toxic stress may prevent child from learning, from playing in a healthy way with other children, and can result in long-term health problems.

#### Adverse Childhood Experiences can include:

1. Emotional abuse
2. Physical abuse
3. Sexual abuse
4. Emotional neglect
5. Physical neglect
6. Mother treated violently
7. Household substance abuse
8. Household mental illness
9. Parental separation or divorce
10. Incarcerated household member
11. Bullying (by another child or adult)
12. Witnessing violence outside the home
13. Witness a brother or sister being abused
14. Racism, sexism, or any other form of discrimination
15. Being homeless
16. Natural disasters and war

#### Exposure to childhood ACEs can increase the risk of:

- Adolescent pregnancy
- Alcoholism and alcohol abuse
- Depression
- Illicit drug use
- Heart disease
- Liver disease
- Multiple sexual partners
- Intimate partner violence
- Sexually transmitted diseases (STDs)
- Smoking
- Suicide attempts
- Unintended pregnancies

### How do ACEs affect health?

**Through stress.** Frequent or prolonged exposure to ACEs can create toxic stress which can damage the developing brain of a child and affect overall health.

Reduces the ability to respond, learn, or figure things out, which can result in problems in school.

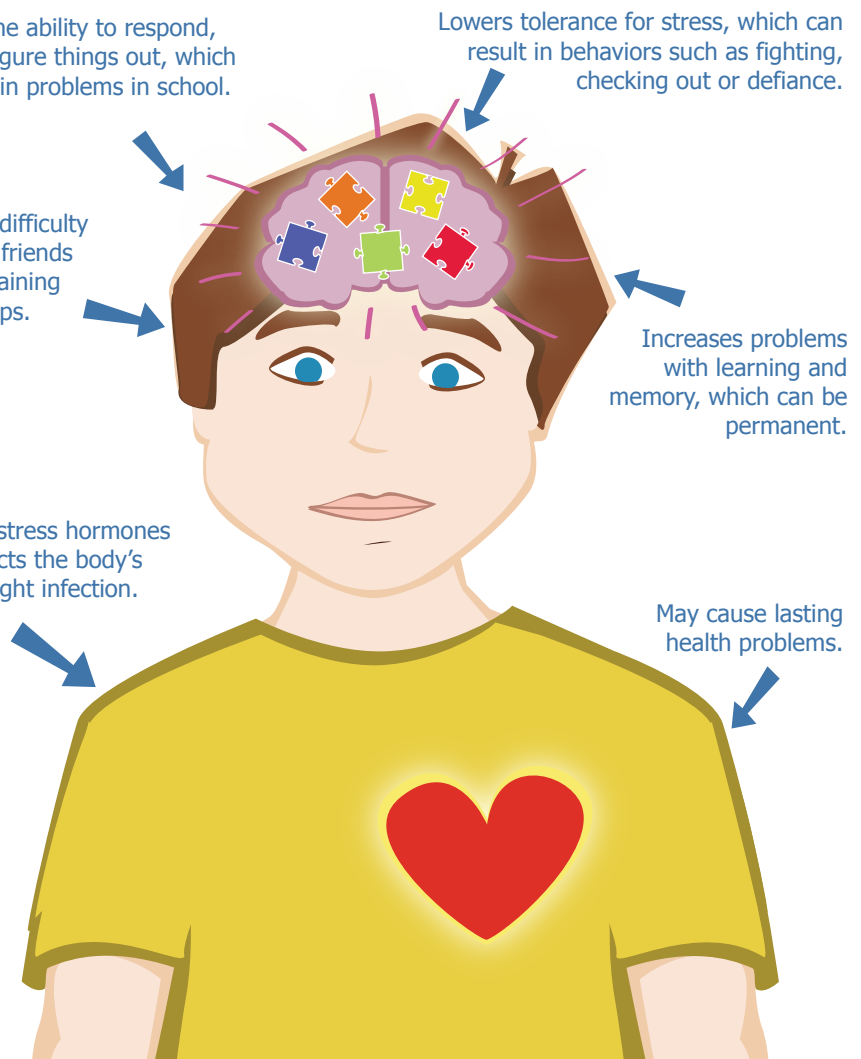
Lowers tolerance for stress, which can result in behaviors such as fighting, checking out or defiance.

Increases difficulty in making friends and maintaining relationships.

Increases problems with learning and memory, which can be permanent.

Increases stress hormones which affects the body's ability to fight infection.

May cause lasting health problems.



**A Survival Mode Response** to toxic stress increases a child's heart rate, blood pressure, breathing and muscle tension. Their thinking brain is knocked off-line. Self-protection is their priority. In other words:  
**"I can't hear you! I can't respond to you! I am just trying to be safe!"**

# The good news is resilience can bring back health and hope!

## What is Resilience?

Resilience is the ability to return to being healthy and hopeful after bad things happen. Research shows that if parents provide a safe environment for their children and teach them how to be resilient, that helps reduce the effects of ACEs.

## Resilience trumps ACEs!

### Parents, teachers and caregivers can help children by:

- Gaining an understanding of ACEs
- Helping children identify feelings and manage emotions
- Creating safe physical and emotional environments at home, in school, and in neighborhoods

### What does resilience look like?

#### 1. Having resilient parents

Parents who know how to solve problems, who have healthy relationships with other adults, and who build healthy relationships with their children.

#### 2. Building attachment and nurturing relationships

Adults who listen and respond patiently to a child in a supportive way, and pay attention to a child's physical and emotional needs.

#### 3. Building social connections

Having family, friends and/or neighbors who support, help and listen to children.

#### 4. Meeting basic needs

Providing children with safe housing, nutritious food, appropriate clothing, and access to health care and good education.

#### 5. Learning about parenting and how children grow

Understanding how parents can help their children grow in a healthy way, and what to expect from children as they grow.

#### 6. Building social and emotional skills

Helping children interact in a healthy way with others, manage their emotions and communicate their feelings and needs.



### Resources:

#### ACES 101

<http://acestoohigh.com/aces-101/>

#### Triple-P Parenting

[www.triplep-parenting.net/glo-en/home/](http://www.triplep-parenting.net/glo-en/home/)

#### Resilience Trumps ACEs

[www.resiliencetrumpsACEs.com](http://www.resiliencetrumpsACEs.com)

#### CDC-Kaiser Adverse Childhood Experiences Study

[www.cdc.gov/violenceprevention/acesstudy/](http://www.cdc.gov/violenceprevention/acesstudy/)

#### Zero to Three Guides for Parents

<http://www.zerotothree.org/about-us/areas-of-expertise/free-parent-brochures-and-guides/>