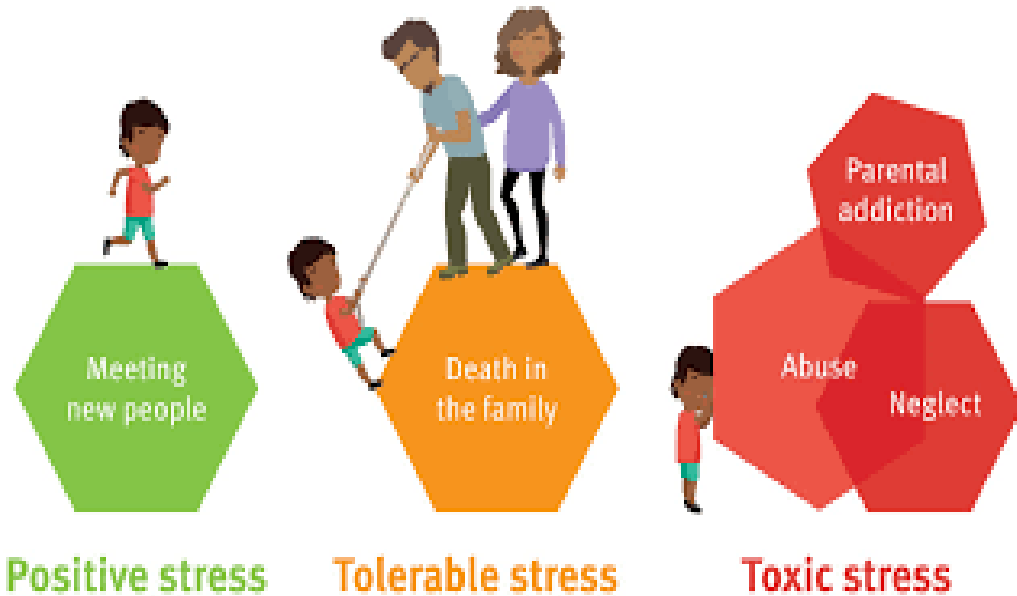
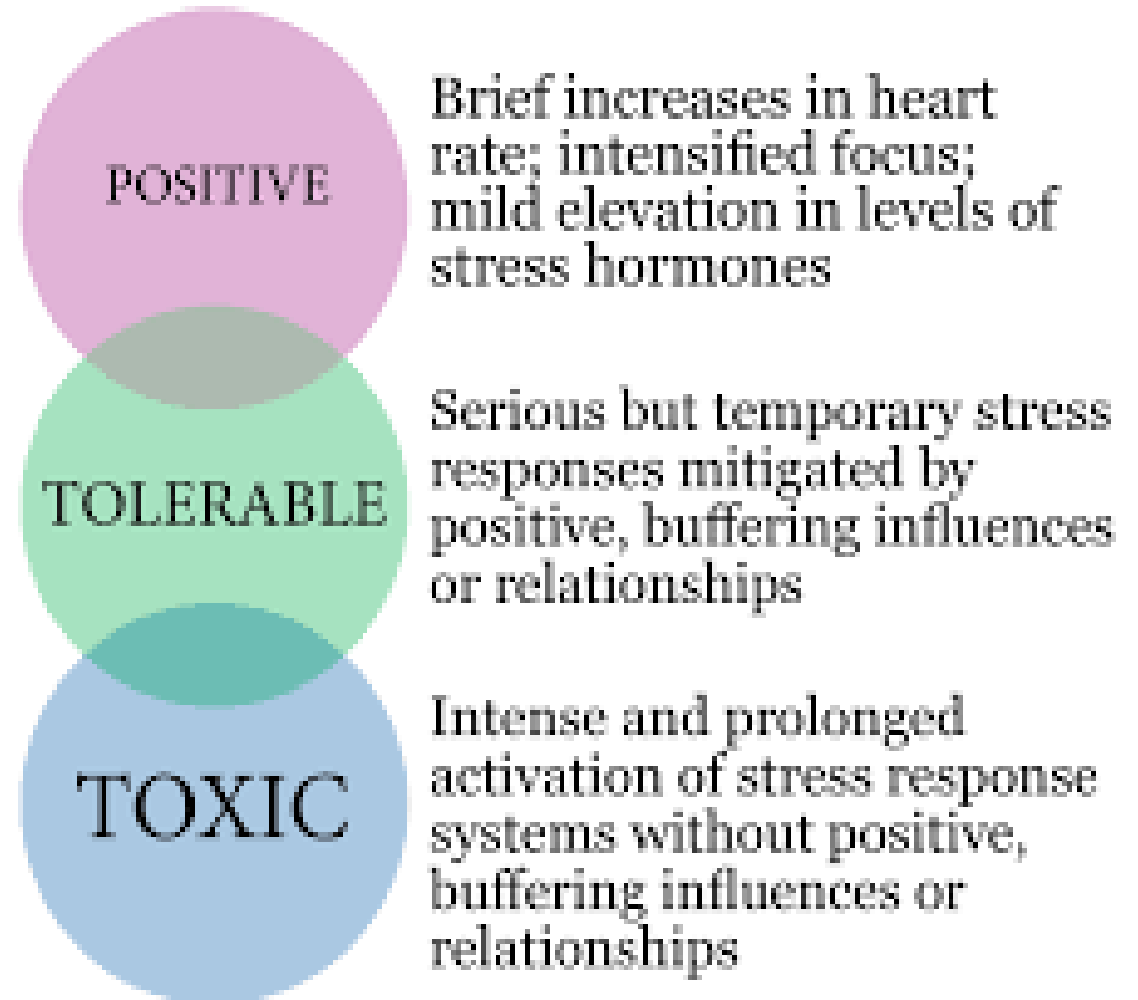


# Toxic Stress



## DEGREES OF STRESS



## What are ACEs?

ACEs are significant childhood traumas as identified below which can result in actual changes in brain development. These changes may affect a child's learning ability, social skills, and can result in long-term health problems. The Centers for Disease Control and Prevention (CDC) views ACEs as one of the major health issues in the 21st century.

### 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

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

- Adolescent pregnancy
- Alcoholism and alcohol abuse
- Chronic obstructive pulmonary disease (COPD)
- Depression
- Early initiation of sexual activity
- Early initiation of smoking
- Fetal death
- Health-related quality of life
- Illicit drug use
- Ischemic heart disease (IHD)
- Liver disease
- Multiple sexual partners
- Risk for 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 ability to respond, learn, or process effectively which can result in problems in school

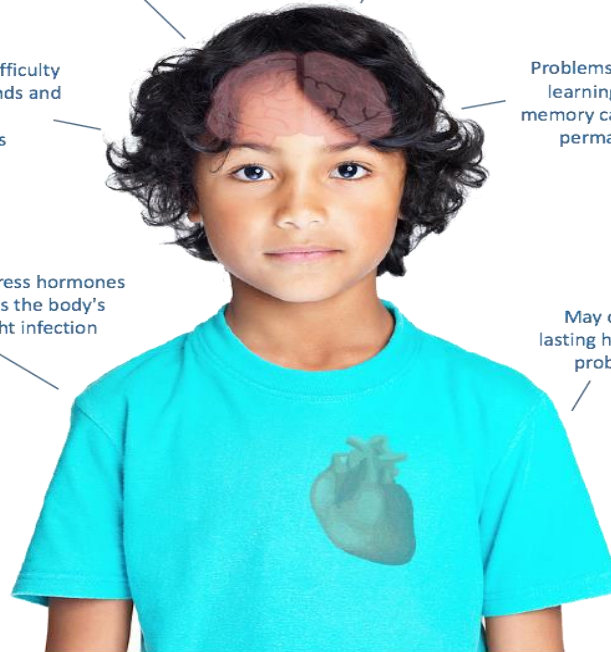
Lower tolerance for stress can result in behaviors such as aggression, checking out, and defiance

May have difficulty making friends and maintaining relationships

Problems with learning and memory can be permanent

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

May cause lasting health problems



A **Survival Mode Response** is one that increases heart rate, blood pressure, breathing and muscle tension. When a child is in survival mode, 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."**

# Definition of Toxic Stress

*Toxic stress* can occur when a child experiences strong, frequent, and/or prolonged adversity—such as physical or emotional abuse, chronic neglect, caregiver substance abuse or mental illness, exposure to violence, and/or the accumulated burdens of family economic hardship—without adequate adult support.



Being in a constant state of vigilance is what separates toxic stress from normal, everyday stress.

# Impact of Toxic stress

*This kind of prolonged activation of the stress response systems can disrupt the development of brain architecture and other organ systems, and increase the risk for stress-related disease and cognitive impairment, well into the adult years.*



# Impact

- **Toxic stress** has the potential to change your child's **brain chemistry, brain anatomy** and even **gene expression**.
- **Toxic stress** weakens the architecture of the developing **brain**, which can lead to lifelong problems in learning, behaviour, and physical and mental health.

# Response to Toxic Stress

- The more adverse experiences in childhood, the greater the likelihood of developmental delays and later health problems, *including heart disease, diabetes, substance abuse, and depression.*
- Research also indicates that **SUPPORTIVE, RESPONSIVE RELATIONSHIPS WITH CARING ADULTS AS EARLY IN LIFE AS POSSIBLE CAN PREVENT OR REVERSE THE BRAIN AND BODY DAMAGING EFFECTS OF THE TOXIC STRESS RESPONSE**

Toxic stress has the potential to change your child's brain chemistry, brain anatomy and even gene expression.

Toxic stress weakens the architecture of the developing brain, which can lead to lifelong problems in learning, behavior, and physical and mental health.

