### Are you ACEs aware?

Adverse Childhood Events (ACEs) are stressful events that children experience before 18 years of age that are heavily associated with multiple health risk factors in adulthood. [1] Children with ACEs who did not have a stable and nurturing home environment can over time develop a toxic stress response, which in turn can affect their brain development, hormone response and immune systems, and genetics. The more adverse childhood experiences a child has, the higher their chance of developing chronic health problems, substance abuse, and mental illness.

### What is the toxic stress response?

Every time a child experiences something stressful in their household a stress response is created in their bodies to protect them. If these stress responses repeat over and over or are activated for a long time without relief or protection provided by caregivers and a nurturing home environment, the body has a harder time recovering. These accumulated stresses alter how the brain develops, how the hormone and immune systems respond, and even how DNA is made in the body. [2] [3] [4] [5]

#### What health conditions are associated with ACEs?

Children of all ages, even infants, can have health conditions caused by toxic stress. Babies can have growth and developmental problems and sleep problems. Older children are more at risk for learning and behavioral problems, asthma, pneumonia, and viral infections. Teenagers are more at risk for headaches and stomach pains, mental health disorders, and high-risk behaviors such as sex and substance use.

Adults who have 4 or more ACEs are: [6]

- 37.5 times more likely to attempt suicide
- About 4-12 times more likely to suffer from drug abuse, alcoholism, depression
- About 3 times more likely to have chronic lung disease
- About 2 times more likely to have a stroke, cancer, or heart disease
- Almost 1.5 times as likely to have diabetes, physical inactivity, or severe obesity

# How do Physicians screen for ACEs?

Physicians can screen their patients with a questionnaire at health visits that asks if their patients have experienced any of these 10 ACE categories:

- Abuse: emotional, physical, or sexual abuse
- Neglect: emotional and physical neglect
- Household dysfunction: violence against mother, living with a person who was a substance abuser, mentally ill or suicidal, or ever imprisoned

Each "yes" answer is given one point and the score ranges from 0 to 10. An ACE score of 4 or more means that the child is at "high risk" for toxic stress and the health risks mentioned above.

# Why is it important to detect and prevent ACEs? [7]

The earlier ACEs are detected, the earlier these stresses can be addressed with families and resources can be given. In addition, helping and preventing ACEs now will prevent them from being passed on from one

generation to the next and is associated with higher achievements in school, getting better jobs as adults, and decreasing all of the above health risks and harmful behaviors.

# Some ways to treat and prevent ACEs are:

- Increase social and economic support for families in need
- Create public education campaigns in the community to promote positive parenting and support parents
- Provide early support for children such as early home visitation, affordable high quality child care, early preschool enrichment programs
- Provide programs for parents to help them learn how to manage stress, emotions, and relationships in the home
- Provide mentorship programs for children to connect them with caring adults
- Provide care, support and referrals to victim-centered services and specific care for specific exposures

# Preventing ACEs can potentially decrease:

- The number of people with coronary heart disease by up to 12.6%
- Obesity or overweight by 1.7%
- Depression by 44.1%

#### References

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#### Disclaimer:

This information is not considered medical advice and the reader should consult with their own medical provider if they have a medical condition that needs evaluation. This information is based on a collection of from the above medical journals and do not express the guidance of the medical group that I work for.