



## How Toxic Stress Impacts Children's Health

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**W**hen families are healthy and well, children can learn and grow, caregivers can fully contribute, and Iowa's economy and communities can prosper.

The conditions in which families live shape their ability to thrive. Families especially need access to supportive connections and essential needs, including quality housing options, medical and behavioral healthcare, robust public schools, and family-friendly workplaces. These positive social and economic conditions enable caregivers to make choices that strengthen their family and foster healthy development in children.

*(continues on page 2)*

## How Toxic Stress Impacts Children's Health *(continued from page 1)*

But many families face challenges and struggle to access what they need to thrive. They live within harmful conditions that especially impact children during their most critical period of development. By understanding the impact of toxic stress on children and families and what causes it, healthcare providers can identify new ways to promote better health outcomes for patients.

Here are five things you should know:

### 1. Early experiences shape a child's developing brain.

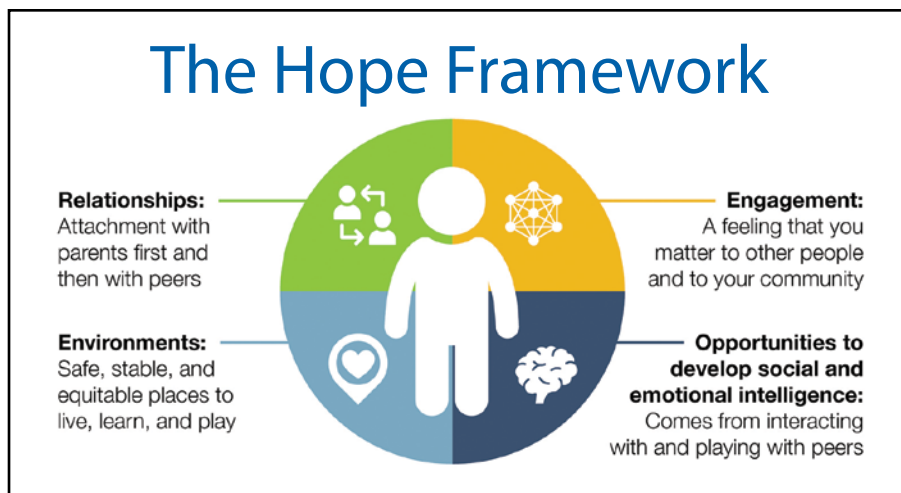
The first years of a child's life are when the brain has the most potential to form a sturdy foundation for future development. Genes provide the basic blueprint for the brain's architecture, but experiences influence which connections in the brain are made.<sup>1</sup>

According to the HOPE framework (see above), positive experiences are especially important to fostering children's healthy development. Nurturing adult relationships, in particular, help young children form brain connections that enable them to regulate emotions, problem solve, focus on learning, and build positive relationships.

### 2. Caregivers' stress is children's stress.

Adults can feel the heavy weight of stress from traumatic situations, such as witnessing violence or experiencing homelessness, or from persistent daily challenges, including living in poverty and/or experiencing racism. A high level of stress can put a person in a fight, flight, or freeze response that makes planning or staying calm difficult. Systems that don't offer support, or place barriers to accessing resources, add additional weight on caregivers.

Like a truck carrying too heavy of a load, stress can wear a caregiver down and make it impossible to complete necessary tasks. A parent may struggle to provide the safe, nurturing interactions children need to help buffer against stressful environments — thus furthering the impact stress can have on the child.<sup>2</sup>



Source: Responding to ACES with HOPE: Health Outcomes from Positive Experiences, 2017.

### 3. Toxic stress can disrupt children's development.

When a child experiences significant and/or persistent stress within their environment without adult support, the stress can become toxic. Their stress response system may never completely shut down and allow them to recover.<sup>2</sup>

The Adverse Childhood Experiences (ACE) Study was the first study of its kind to show the connection between toxic stress in childhood and poor adult health outcomes. A study published in 1998 by Vincent Felitti, MD, Kaiser Permanente, and Robert Anda, MD, Centers for Disease Control and Prevention, found that:

- ACEs are common: Nearly 2/3 of the study participants experienced at least one of 10 types of household trauma, such as physical abuse, emotional neglect, and substance abuse in the home.
- ACEs tend to occur in clusters: Those who experienced one type of trauma, like witnessing domestic violence, tended to report other types of childhood trauma.
- ACEs are cumulative: As the number of ACEs someone experienced increased, so did the risk of a range of physical and mental health issues.<sup>3</sup>

Gathered over eight years, Iowa's data mirrors national statistics.

### 4. Toxic stress can lead to a lifetime of challenges.

The ACE Study and subsequent research show a dose-response relationship with 40 health and behavioral outcomes. The more ACEs someone reports experiencing

in childhood, the more likely they are to have challenges like heart disease, lung disease, and depression as adults.<sup>3</sup>

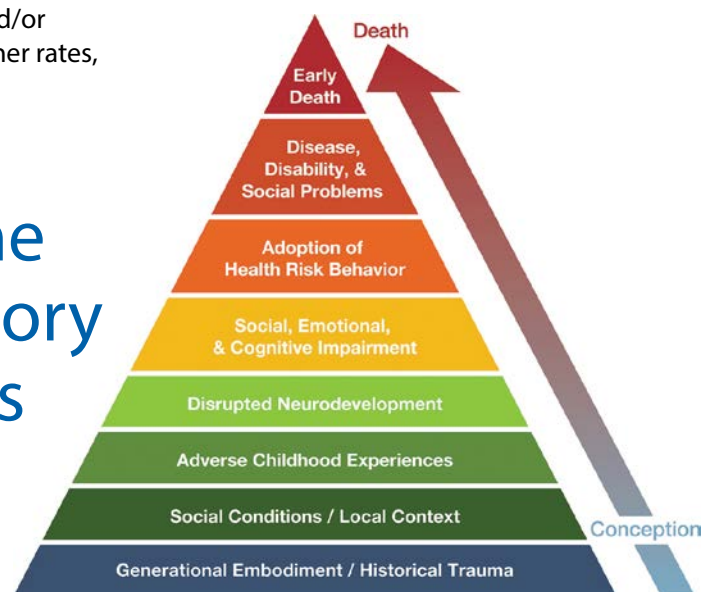
Trauma can also lead to health-risk behaviors and health issues in children, including the following: depression, anxiety, sleep disturbances, substance use, early sexual activity, memory loss, and problems with anger.<sup>4</sup> Young children who suffer seven or more types of adversity have a 100% chance of developmental delays.<sup>5</sup>

It's important to note that ACEs research is based on studying a large population and is just one lens to understand why someone may be experiencing health challenges. Many individuals with high ACEs thrive for a variety of reasons, including growing up with the support needed to heal and build resilience.

### 5. We need to look at the context in which ACEs are occurring.

The ACEs pyramid (see below) illustrates how ACEs can disrupt healthy child development and lead to health challenges. This graphic also explains how social conditions and historical trauma can influence whether a child experiences ACEs. The bottom rung especially highlights the science of epigenetics, which focuses on how the trauma of our ancestors becomes a part of our DNA and influences how we respond to our current environment. The ancestors of those who lived through threatening circumstances may, for example, have a more reactive stress-response system and/or experience heart disease or obesity at higher rates, partially due to their genetic code.<sup>6</sup>

## Lifetime Trajectory of ACEs



Adapted from the CDC ACEs pyramid and informed by the Ryse Center.

The most impactful way to respond to toxic stress is to address the bottom two rungs of the ACEs pyramid, with a focus on helping individuals heal from generational trauma and creating community conditions that promote family well-being.

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# How Healthcare Providers Can Respond to Toxic Stress

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While early adversity can cause toxic stress and affect a child's lifelong health and well-being, it doesn't have to. Working together, we can create communities in which every individual can thrive.

As a near universal access point to children and families, healthcare providers especially play an important role in responding to childhood trauma to improve health outcomes for patients.

Here are a few key approaches for responding:

**Early Relational Health** is an emerging term, recognizing that healthy child development occurs best in the context of nurturing and responsive caregiver-child relationships. When adults respond sensitively and appropriately to a child's needs, a deep and enduring emotional bond is created that helps a child feel secure. This kind of attachment is especially important when a child feels threatened or stressed. Healthcare providers can promote these kinds of relationships by supporting caregivers in their important role and working to ensure families live in safe communities with strong connections to others and access to what they need to flourish together.<sup>1</sup>

**Trauma-informed Care** is a way of approaching interactions with others using a lens of love, empathy, and understanding. It means being mindful that colleagues, patients, and families may have experienced adversity in their lives that contributes to certain behaviors and health issues. Knowing this, you should not ask, "What is wrong with you?" but instead consider what might have happened to someone and then ask, "How can I support you?"<sup>2</sup>

Not everyone with behavioral and/or mental health challenges has experienced trauma and not everyone who has experienced trauma has concerning challenges.

Healthcare providers should aim to understand, recognize, acknowledge, and respond to the effects of all kinds of trauma, with an emphasis on fostering physical, psychological, and emotional safety and love for all patients. This approach can help patients become empowered, feel connected, feel confident and competent, and regulate emotions so that healing can occur.

**Healing-centered Engagement** moves beyond a focus on what happened to someone and considers what is right with them and how can they foster their own well-being. According to Shawn Ginwright, PhD, "A healing-centered approach is holistic involving culture, spirituality, civic action, and collective healing. A healing-centered approach views trauma not simply as an individual, isolated experience, but rather highlights the way in which trauma and healing are experienced collectively."<sup>3</sup>

## Applying New Approaches to a Healthcare Practice

Iowa ACEs 360 worked with Amy Shriver, MD, a general pediatrician in Iowa, to create guidance for how to respond to ACEs in a healthcare setting. These recommendations can be implemented at various levels based on the healthcare clinic's capacity and resources:

- **Education:** Practices should provide ongoing, current, evidence-based, trauma-informed care education and appropriate training to all clinic staff, including physicians, nurses, medical assistants, and office and billing staff. Once a clinic has received training on ACEs and trauma-informed care, the next step is educating

*(continues on page 7)*



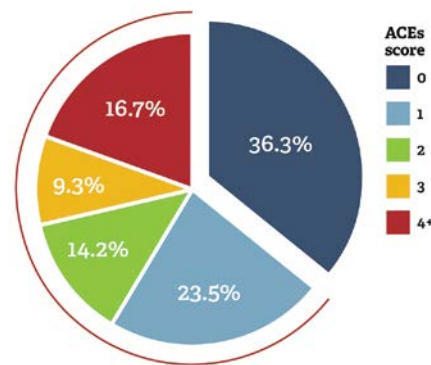
# Trauma-informed Practices to Improve Patient Health

## A child's healthy development creates the foundation for future well-being.

Adverse childhood experiences are incidents that can dramatically upset a child's sense of safety and well-being. When a child experiences stress that is powerful, frequent, prolonged, and/or unpredictable without adequate support, that child's stress-response system stays on and can disrupt their healthy development. This level of toxic stress increases the risk of poor health outcomes throughout a lifetime. (Source: "What We Can Do About Toxic Stress." Center on the Developing Child at Harvard University. Retrieved Aug. 25, 2022.)

## Prevalence of Adverse Childhood Experiences (ACEs) Among Iowans

Iowa ACEs 360. Healing Iowa: 2020 Iowa ACEs Report.



Iowa adults who have experienced four or more ACEs compared to those with zero ACEs are:

- 2.2 times more likely to have asthma.
- 2.6 times more likely to have arthritis.
- 5.2 times more likely to have COPD.
- 7.6 times more likely to have depression.

Promoting positive conditions for families by removing barriers and increasing access to supportive connections and essential needs can enable caregivers to make choices that foster their children's healthy development and reduce the likelihood that ACEs will occur.

### Resources for Healthcare Providers

Iowa ACEs 360 partnered with Amy Shriver, MD, to develop the ACEs Pediatric Project to support practice change in pediatric and family care clinics. The project emphasizes four components for implementing a trauma-informed practice that improves outcomes for staff and patients. Use the resources under each area to help you take the next steps.

#### Education

Practices should provide ongoing, current, evidence-based, trauma-informed care education and appropriate training to all staff in the clinic.

- Iowa ACEs 360 offers self-guided online learning modules for healthcare providers. [www.iowaaces360.org/aces-training](http://www.iowaaces360.org/aces-training).
- The American Academy of Pediatrics has research and resources related to ACEs. Search "ACEs" at: [www.aap.org](http://www.aap.org).



## Resource & Referral

When you have a family in need of support, you should be prepared to address those needs in an efficient and effective manner by referring them to community-based services.

- 211 Iowa is available 24/7 by phone, text, or online to connect individuals to the local resources they need. Visit [www.211iowa.org](http://www.211iowa.org).
- Many regions in Iowa have models for screening healthcare patients and connecting families to needed services. Visit [www.iafamilysupportnetwork.org](http://www.iafamilysupportnetwork.org) to learn about Nine2Thrive and 1st Five.

## Screening

Before implementing an ACEs screening process, learn about the best ways to approach screening. Tools should be developmentally appropriate and apply cultural humility.

- Iowa ACEs 360 offers guidance for what to consider in using an ACEs screening: [www.iowaaces360.org](http://www.iowaaces360.org).
- The American Academy of Pediatrics has published guidance on ACEs screening: [www.aap.org](http://www.aap.org).
- The Child Traumatic Stress Care Process Model uses the SEEK questionnaire: [utahpips.org/cpm](http://utahpips.org/cpm).

## Climate & Culture

Creating a trauma-informed practice involves enhancing the built environment, allowing for comfort, education, privacy, strengths-based teaching, and support throughout a family's clinic experience, as well as preventing re-traumatization.

- The Trauma Informed Care Project offers training, assessments, and tools to support changes: [traumainformedcareproject.org](http://traumainformedcareproject.org).
- The Center for Health Care Strategies offers tools and strategies: [www.chcs.org](http://www.chcs.org).

## Resources for Iowa Families

Iowa ACEs 360: Explore resources to learn about stress and find support at: [www.iowaaces360.org/individuals-and-families](http://www.iowaaces360.org/individuals-and-families).

Iowa Family Support Network: Find information and resources, including family support services, that can help you as a parent at: [iafamilysupportnetwork.org](http://iafamilysupportnetwork.org).

Iowa Department of Human Services Child Care Resources: Find tools and resources related to child care and support for your family at: [dhs.iowa.gov/childcare/tool-and-resources](http://dhs.iowa.gov/childcare/tool-and-resources).

Child Care Resource & Referral: Seek help in making an informed choice about child care at: [lowaccrr.org/families](http://lowaccrr.org/families).

1st Five: Speak to your child's healthcare provider if you have concerns about how your child is developing. You could be referred to 1st Five, which serves most Iowa counties. Visit [idph.iowa.gov/1stfive](http://idph.iowa.gov/1stfive).

WIC: Connect to nutrition and health services for you and your young child at: [idph.iowa.gov/wic/families](http://idph.iowa.gov/wic/families).

Iowa Victim Service Call Center: Seek help if you are the victim of a crime at: [survivorshelpline.org](http://survivorshelpline.org) or call 800-770-1650.

Your Life Iowa: Find help for you or your loved one struggling with drugs, alcohol, gambling, mental health, or suicidal thoughts at: [yourlifeiowa.org](http://yourlifeiowa.org).

NAMI Iowa: Find help if you or a loved one is struggling with mental illness. Call 800-273-8255.

Iowa PBS: Find resources and activities to support your child's learning at: [iowapbs.org/education](http://iowapbs.org/education).



materials are provided at the right education level and language to families, understanding and addressing cultural barriers, listening to patients and being aware of their unique needs within the context of their culture and traditions, and examining whether policies, such as those related to no-show or billing, are traumatizing to clients.

patients and families on the importance of early relational health and managing stress.

- **Resource & Referral:** Stress and adversity are universal among patients and families. Some stress is manageable, while other stress requires support from community-based programs. Once your practice has identified a family in need of support, you should be prepared to address those needs in an efficient and effective manner. Beginning practices will have basic referral sources and understanding of the community. Most advanced practices will have a structured and ongoing resource and referral process that coordinates connections for patients.
- **Screening for Stress:** A prerequisite for any screening process is to have a referral system in place to support families who may need additional help. Screening tools should be developmentally appropriate, culturally competent, and apply cultural humility. Experts in ACEs research recommend screening tools that encompass caregiver screening as well. A final component for screening and assessment is to provide training on how to properly administer the tool.
- **Climate & Culture:** Creating a trauma-informed practice involves enhancing the built environment, allowing for comfort, education, privacy, strengths-based teaching, and support throughout a family's clinic experience, as well as preventing re-traumatization. This includes making sure

Iowa ACEs offers training and resources to help you get started with each of these components. Learn more at [www.iowaaces360.org/health-care](http://www.iowaaces360.org/health-care).

Iowa ACEs 360 aims to prevent and mitigate the impact of childhood adversity by empowering communities, organizations, and people to take informed action. Through research, innovation, knowledge building, and advocacy, we are creating opportunities for all Iowans to heal from trauma and thrive for generations to come.

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## What’s in this issue

How Toxic Stress Impacts Children’s Health ..... 1-3

How Healthcare Providers Can Respond to Toxic Stress .....4,7

**Insert:**

Trauma-informed Practices to Improve Patient Health ..... 5-6

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