

The Impact of Adverse Childhood Experiences on Health

Level 5 | 2026

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Pronouns: She, her, hers
www.DiabetesEd.net

Land Acknowledgment

- We acknowledge and are mindful that Diabetes Education Services stands on lands that were originally occupied by the first people of this area, the Mechoopda, and we recognize their distinctive spiritual relationship with this land, the flora, the fauna, and the waters that run through this area.

We are Here to Help!



Bryanna Sabourin
Director of Operations

If you have questions, you can chat with us at www.DiabetesEd.net
or call 530 / 893-8635 or email at info@diabetesed.net

Diabetes Education Services Inclusion Statement

Based on the IDEA Initiative inspired by CDR

- ▶ Inclusion
- ▶ Diversity
- ▶ Equity
- ▶ Access



- ▶ We are committed to promoting diversity and inclusion in our educational offerings.
- ▶ We recognize, respect, and include differences in ability, age, culture, ethnicity, gender, gender identity, sexual orientation, size, and socioeconomic characteristics.
- ▶ Our goal is to promote equity and access, acknowledging historical and institutional inequities.
- ▶ We are committed to practicing cultural humility and cultivating our cultural competence.
- ▶ We wish to create a safe space within our community where one's beliefs, experiences, identity, and differences in ability, age, size, socio-cultural/socioeconomic characteristics, and political affiliations are considered and respected.

Coach Bev has no Conflict of Interest

- ▶ She's not on any speaker's bureau
- ▶ Does not invest or have any financial relationships with diabetes related companies.
- ▶ Gathers information from reading package inserts, research and articles
- ▶ The ADA Standards of Medical Care is main resource for course content

Objectives:

- ▶ Discuss the benefits of assessing Adverse Childhood Experiences (ACE) in individuals with diabetes.
- ▶ State the relationship between ACE Scores and risk of future health complications.
- ▶ Describe a person-centered approach to fostering resilience and self-care for individuals with toxic stress.
- ▶ Identify two strategies to provide trauma informed care in your work setting.

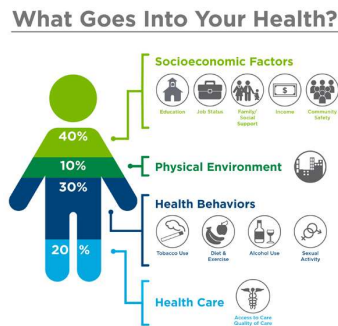
Diabetes is Complex

- ▶ Goal – achieve well being and satisfactory medical outcomes
- ▶ Psychological factors:
 - ▶ Environmental
 - ▶ Social
 - ▶ Behavioral
 - ▶ Emotional
- ▶ Keep it person centered while integrating care into daily life
 - ▶ Consider the individual



Address Barriers to Self Management

- ▶ **Barriers exist** within health system, payer, health care professional & individual.
- ▶ **Address barriers** through innovation, including community health workers, telehealth, other digital health solutions.
- ▶ **Consider social determinants of health** in the target population when designing care.



Source: Institute for Clinical Systems Improvement. Using Regional Clinical Models, Improving Population Health Outcomes (2016)

<https://coveragetoolkit.org/health-equity/defining-health-equity/>

Tailoring Treatment for Social Context

- ▶ “Social Drivers of Health (SDOH)—
often out of direct control of the individual and potentially representing lifelong risk—contribute to health care and psychosocial outcomes and must be addressed to improve all health outcomes”



1. Improving Care and Promoting Health in Populations: Standards of Care in Diabetes—2026

Individualized Care Strategies

- ▶ Consider individualized care and create environmental structures to support people with:
 - ▶ Food insecurity
 - ▶ Cognitive dysfunction
 - ▶ Mental illness (2-3 x's higher rates of diabetes in schizophrenia, bipolar)
 - ▶ HIV (meds can cause pancreatic dysfunction)
 - ▶ History of trauma
- ▶ Health disparities related to:
 - ▶ Ethnicity, racism, culture, sex, socioeconomic status, LGBTQ



Look Beyond Diabetes

- ▶ ACE – Adverse Childhood Experiences
- ▶ Diabetes Distress
- ▶ Cultural traditions, family system.
- ▶ Social, religious and employment influences
- ▶ Personal factors: attitudes, cognitive factors, literacy, learning styles, health beliefs
- ▶ Depression, anxiety
- ▶ Mental illness
- ▶ Addiction issues



Poll Question 1

JR is 26 years old with newly diagnosed diabetes. JR keeps missing appointments and when you finally get a hold of them on the phone, they start crying and say "my life is a mess". JR is struggling with addiction, being unhoused and weight struggles in addition to diabetes. Based on this information, what is the most likely barrier to JR engaging in self-care?

JR is struggling with depression

Diabetes distress is at the core of the listed behaviors

Grieving and denial of diabetes diagnosis

Adverse Childhood experiences (ACEs)

Question - What is ACE?

- ▶ ACE =
 - ▶ Adverse
 - ▶ Childhood
 - ▶ Experiences
 - ▶ (before 18 yrs)
- ▶ What is the relationship between childhood trauma and health?



CDC-Kaiser Study 1997

- ▶ Mailed out over 17,000 questionnaires asking KP participants in CA, asking about specific early childhood adverse experiences.
- ▶ More than 60% had 1 or more
- ▶ 18% had 4 or more



10 Assessment Areas for ACE – Use 10 Question Screening Tool to Assess

Abuse



Neglect



Household Challenges



STRESS BUSTERS TOOLKIT
for Community-Based Organizations

www.acesaware.org

Adverse Childhood Experience (ACE) is Common

About **1 in 7** children experienced child abuse and neglect in the last year.



Estimated Cost of Child Abuse and Neglect

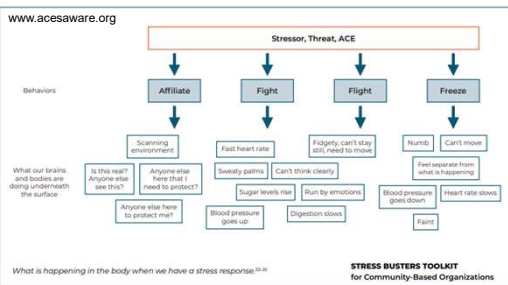


See [Child Abuse and Neglect Resources](#) for more resources about child abuse and neglect.

Stress Response System

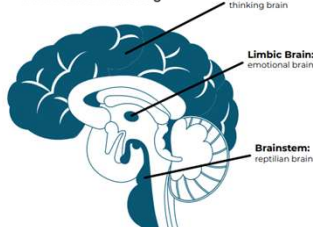
Our biological stress response system

When we experience an event as threatening, our stress response is activated. There are four main behavioral stress responses: 1) affiliate, 2) fight, 3) flight, and 4) freeze. Following is what happens in our bodies for each type of response.^{15,16}



Brain's Response to Stressors

www.AcesAware.org



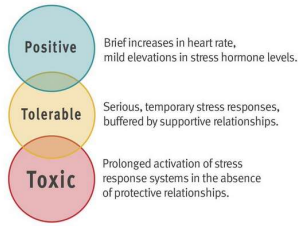
Cortex "thinking brain" - In an emergency we don't want to waste time planning - we want our instincts and emotions to take over. When there is a threat, this part of the "thinking brain" may essentially turn off.

Brain Stem "lizard brain"- Survival State "Am I safe". Controls automatic functions; heart rate, breathing, blood flow, and temperature. Involved in instinctual processes to keep us safe and is critical for the fight, flight, and freeze responses.

Limbic brain "mammalian brain"- includes the amygdala, also known as the "threat detector" - is like an emotional processing center. When we detect danger, it directs the rest of the brain to do what has to be done instinctually to keep us motivated and safe.

Toxic Stress (ACEs) in Childhood

Three Types of Stress



As Adults

- ▶ Manifests as psychological issues (depression and anxiety)
- ▶ But also manifests as diseases like diabetes (regardless of lifestyle factors)

Toxic stress is preventable and treatable

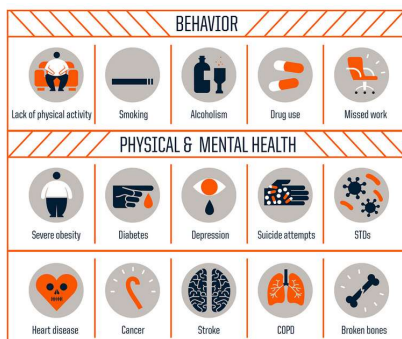
The impact of childhood trauma and Toxic Stress?

Leads to:

- ▶ Neuroendocrine dysregulation
- ▶ Altered immune response
- ▶ Disrupts DNA packaging
- ▶ Epigenetic tags can alter genetic makeup



Impact of Childhood Trauma on Adults



ACE increases risk for 9 out of 10 leading causes of death in US

Leading Cause of Death Odds Ratio with ≥ 4 ACEs

▶ Heart Disease	▶ 2.1
▶ Stroke	▶ 2.0
▶ Diabetes	▶ 1.4
▶ Kidney Disease	▶ 1.7
▶ Cancer	▶ 2.3
▶ Alzheimer's	▶ 4.2
▶ Suicide(attempts)	▶ 37.5

<https://www.cdc.gov/vitalsigns/aces/index.html>

It's Worth Preventing ACEs

Preventing ACEs could reduce a large number of health conditions.

UP TO 21 MILLION CASES OF DEPRESSION	UP TO 1.9 MILLION CASES OF HEART DISEASE	UP TO 2.5 MILLION CASES OF OVERWEIGHT/OBESITY
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Pediatric ACEs and Related Life-events – PEARLS for Peds

Pediatric ACEs and Related Life Events Screener

CHILD

The Pediatric ACEs and Related Life-events Screener (PEARLS) is used to screen children and adolescents ages 0-19 for ACEs

PEARLS in English:

- Child (Parent-Caregiver Report) - De-identified (English)
- Child (Parent-Caregiver Report) - Identified (English)
- Child (Parent-Caregiver Report) - Part 1 De-identified, Part 2 Identified (English)
- Teen (Parent-Caregiver Report) - De-identified (English)
- Teen (Parent-Caregiver Report) - Identified (English)
- Teen (Parent-Caregiver Report) - Part 1 De-identified, Part 2 Identified (English)
- Teen (Self-Report) - De-identified (English)
- Teen (Self-Report) - Identified (English)
- Teen (Self-Report) - Part 1 De-identified, Part 2 Identified (English)

Many families experience stressful life events. Over time these experiences can affect your child's health and wellbeing. We would like to ask you questions about your child so we can help them be as healthy as possible.

AcesAware.org

Awareness >> to Healing

Yet many people, parents, health professionals, and educators don't know about ACEs. This lack of knowledge leads to significant illness and unimaginable expense – much of which could be averted through awareness, education, and action.



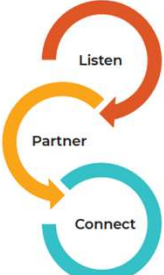
<https://aceresourcenetwork.com/>
You can heal from ACEs.

ACEs have affected all of us in one way or another. ACEs are what happened to us. They are not who we are. They are part of our story and they shape it. If our well-being has been affected, change is possible and there is hope.

What can Healthcare Professionals do?

Listen, Partner, Connect Framework
How can you more consistently use a trauma-informed approach in client interactions? The Listen, Partner, Connect Framework provides a trauma-informed, strengths-based, and collaborative approach to connecting with clients and is intended to be an intuitive way to remember how to structure client interactions.

Listen	Ask open-ended questions about Stress Busters and actively listen to clients.
Partner	Use strengths-based and collaborative approaches with the client, such as motivational interviewing to address what matters most to them and builds on their strengths.
Connect	Refer clients to resources that they want within your organization or in the community, increasing access to resources that can help address clients' needs and calm the stress response.



www.AcesAware.org Stress Busters Toolkit and other training programs.

6 Principles of Trauma Informed Approach

A trauma-informed approach helps us be nonjudgmental and focus on client strengths to motivate and support. The Substance Abuse and Mental Health Services Administration (SAMHSA) provides the following key principles of a trauma-informed approach, which offer useful guidance on providing care and services.¹

Six Principles of a TIA

1	Safety	Safety in physical settings and interpersonal interactions
2	Trustworthiness and Transparency	Operations are conducted and decisions are made with transparency, consistency, respect, and fairness so as to build and maintain trust
3	Peer Support	Support from those with lived experiences of trauma or, in case of children with history of trauma, their family members
4	Collaboration and Mutuality	Partnering, leveling of power differences between and among staff and clients
5	Empowerment	Individuals' strengths and experiences are recognized and built upon
6	Cultural, Historical, and Gender Issues	Organization moves beyond the cultural stereotypes and biases

Source: SAMHSA, Practical Guide for Implementing a Trauma-Informed Approach, 2013.

The clinical response to identification of toxic stress should include:

1. Applying principles of trauma-informed care, including establishing trust, safety, and collaborative decision-making.

2. Supplementing usual care for ACE-Associated Health Conditions with patient education on toxic stress and discussing strategies that can help regulate the stress response, including:

- Supportive relationships, including with caregivers (for children), other family members, and peers
- High-quality, sufficient sleep
- Balanced nutrition
- Regular physical activity
- Mindfulness and meditation
- Experiencing nature
- Mental health care, including psychotherapy or psychiatric care, and substance use disorder treatment, when indicated



3. Validating existing strengths and protective factors.

4. Referrals to patient resources or interventions, such as educational materials, social workers, school agencies, care coordination or patient navigation, and community health workers.

www.AcesAware.org Stress Busters Toolkit and other training programs

Toolkit: Stress Busters for Community-Based Organizations

Get the information, skills, and resources to help clients prevent and heal toxic stress. Ahora disponible en español.

GO TO TOOLKIT

Now available in Spanish.



www.AcesAware.org

Stress Busters Toolkit and other training resources.

Please visit ACEsAware.org for Free Training & Resources



Resources By Type

The ACE resources below are organized by type to help you find the right resource more quickly. Select a type to see a list and descriptions of corresponding resources.

Visit [Advanced Search](#) to filter the resources and search by keyword.

Resources by Type
Resources by Topic
Resources by Stage
Advanced Search
Resources in Spanish
Frequently Asked Operational Questions

Clinical Resources for Adult Providers	Clinical Resources for Pediatric Providers	Parent/Family Education Handouts
Organizational Toolkits	Policy, Research and Advocacy Briefs	Grant/Research Publications

Filter by

All

Poll Question 2

JR is a 22-year-old living with type 1 diabetes who arrives late for their appointment and seems out of sorts. When looking at the ambulatory glucose profile, you notice that time in range is less than 40% and coefficient of variation is also over 40%. You remember from a previous visit that JR had experienced almost half a dozen adverse childhood experiences and had elevated diabetes distress. Based on this information, what is the next best step?

- A. Use the empowerment approach to help JR take charge of their life.
- B. Request that JR is referred to a mental health specialist.
- C. Utilize motivational interviewing techniques to help JR through this rough spot.
- D. Create a judgement free zone and explore with JR how they are feeling.

Create a Judgement Free Zone – Roll out the Carpet of Acceptance

There are no bad or good blood glucose numbers.

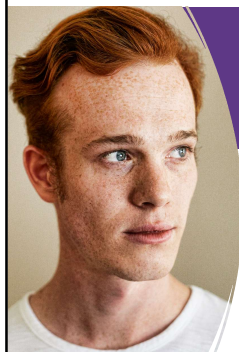
There is no such thing as cheating.

You are not failing at your diabetes.

It is not your fault you have diabetes.

Thank you for showing up today.





Missed Appointments due to Stigma and Shame

A recent survey of over 2,600 people with diabetes across eight countries revealed that nearly 40% of missed doctor's appointments are due to stigma or shame.

Abbott. (2025, February 4). Abbott's Above the Bias film reveals misconceptions can impact diabetes care. <https://abbott.mediaroom.com/2025-02-04-Abbotts-Above-the-Bias-Film-Reveals-Misconceptions-Can-Impact-Diabetes-Care>

Embark Trial – Emotions as Priority

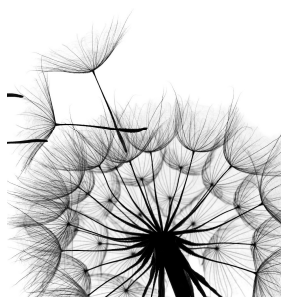
- ▶ I have finally given myself permission to make addressing the emotional aspects of diabetes a priority.

▶ ~Coach Beverly

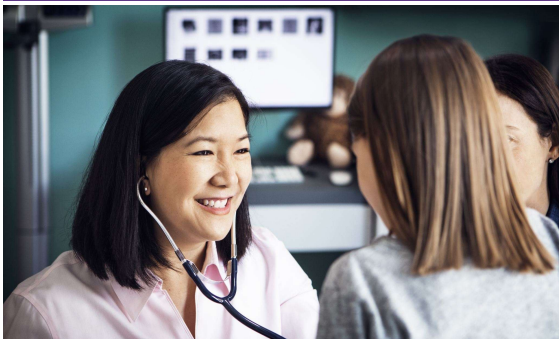


Releasing the Diabetes Distress Brake

- ▶ This strategy recognizes that diabetes distress acts as a brake on the application of existing diabetes knowledge and skills.
- ▶ By releasing the diabetes distress brake through emotion-focused intervention, the negative cycle can be efficiently ended.



Commit to Listening at least Half of the Time



ACEs are Not Destiny

Diabetes Care
Specialists can help
interrupt
intergenerational
transmission of toxic
stress



► ‘With early detection and evidence-based intervention, we can transform health outcomes’

Nadine Burke Harris, MD
1st Surgeon General of
California
Pediatrician, Activist, Role
Model

Supporting Resilience



Actions We Can Encourage That Help Buffer Toxic Stress Response



Being Trauma Aware Saves Lives



I finally feel like someone actually cares what happened to me and is providing me with help and support!

Thank You



- Questions? We are here to help!
- Email info@diabetesed.net
- Call 530/ 893-8635
- www.diabetesed.net

Breath Break