

Dual Impact of Adverse Childhood Experiences & Lead Poisoning on Children

“Building Understanding and Solutions”



Gayle Covington Fowler

WORKSHOP OBJECTIVES

- ❑ Understand the effects of ACEs and lead poisoning on child development
- ❑ Explore their intersection and cumulative impact
- ❑ Identify strategies for prevention, intervention, and policy action
- ❑ Empower communities to take collaborative action

What Are ACEs?

- ❑ • Definition of Adverse Childhood Experiences
- ❑ • Types: Abuse, neglect, and household dysfunction
- ❑ • Prevalence statistics (*include chart/graph*)

ACES Personal Abuse

Physical

Sexual

Psychological

- **Emotional Neglect**
- **Catastrophic Experience**
- **Abandonment**



ACES Family Dysfunction

Substance Abuse

Mental Illness

Domestic Violence

Member of Household Imprisoned

ACE Study – 10 Exposures of Adverse Experiences Studied:

- Physical, Emotional and Sexual Abuse
- Physical and Emotional Neglect
- Household Substance Use
- Mental Illness
- Incarceration
- Mother treated violently
- Separation and/or Divorce

Adverse Childhood Experience (ACE)

Questionnaire

Finding your ACE Score

**While you were growing up,
during your first 18 years of life:**

Adverse Childhood Experience (ACE) Questionnaire

While you were growing up, during your first 18 years of life:

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household **often** ...
Swear at you, insult you, put you down, or humiliate you? **or**
Act in a way that made you afraid that you might be physically hurt?
Yes or No **If yes enter 1** _____
 2. Did a parent or other adult in the household **often** ...
Push, grab, slap, or throw something at you?
or
Ever hit you so hard that you had marks or were injured?
Yes No **If yes enter 1** _____
 3. Did an adult or person at least 5 years older than you **ever**...
Touch or fondle you or have you touch their body in a sexual way?
or
Try to or actually have oral, anal, or vaginal sex with you?
Yes No **If yes enter 1** _____
 4. Did you **often** feel that ...
No one in your family loved you or thought you were important or special?
or
Your family didn't look out for each other, feel close to each other, or support each other?
Yes No **If yes enter 1** _____
 5. Did you **often** feel that ...
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
or
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
Yes No **If yes enter 1** _____
 6. Were your parents **ever** separated or divorced?
Yes No **If yes enter 1** _____
 7. Was your mother or stepmother:
Often pushed, grabbed, slapped, or had something thrown at her?
or
Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?
or
Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
Yes No **If yes enter 1** _____
 8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
Yes No **If yes enter 1** _____
 9. Was a household member depressed or mentally ill or did a household member attempt suicide?
Yes No **If yes enter 1** _____
 10. Did a household member go to prison?
Yes No **If yes enter 1** _____
- Add up your "YES" answers - this is your ACE SCORE _____

Add up your "YES" answers - this is your ACE SCORE _____

1 2 +
3 =

Nadine Burke-Harris

- ▶ Nadine Burke Harris is a Canadian-American pediatrician who has been the Surgeon General of California since 2019
- ▶ She is the first person appointed to that position.
- ▶ She is known for linking **adverse childhood experiences and toxic stress** with **harmful effects to health later in life.**

The ACE Pyramid represents the conceptual framework for the study.

- ❑ Time period of the 1980s & early 1990s information about risk factors for disease had been widely researched and merged into public education and prevention programs.
- ❑ Because of this knowledge, the ACE Study was designed to assess what was considered to be “scientific gaps” about the origins of risk factors.



The ACE Pyramid represents the conceptual framework for the study.

- ❑ By working within this framework, the ACE Study began to progressively uncover how adverse childhood experiences (**ACE**) are strongly related to the development and **prevalence** of risk factors for **disease and health** and **social well-being** throughout the lifespan.

The ACE Pyramid represents the conceptual framework for the study.

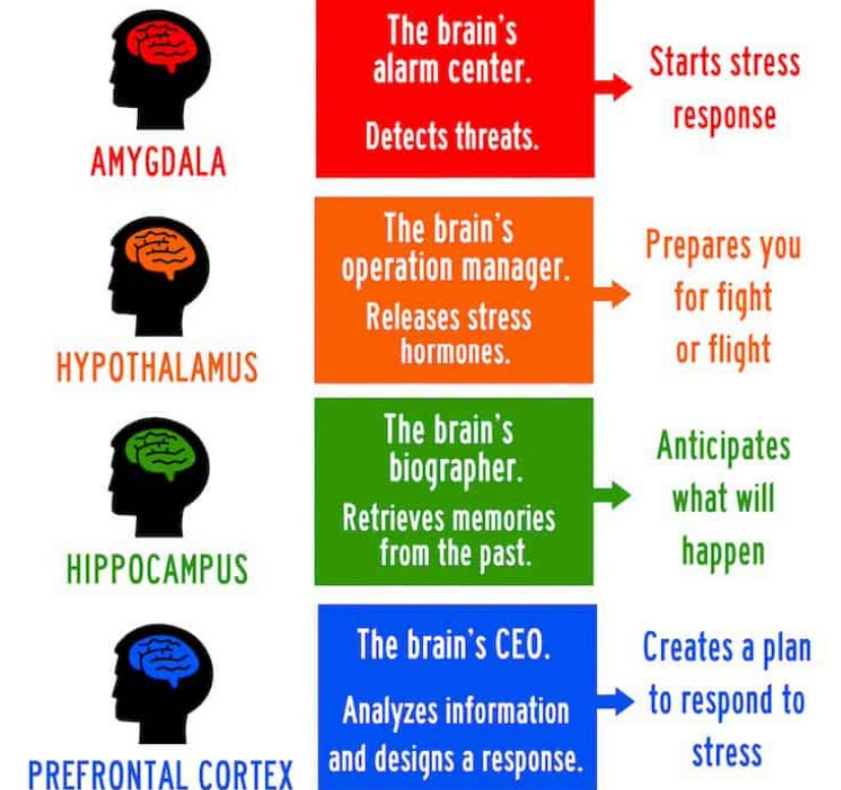
- ❑ The ACE Study takes a **whole life perspective**, as indicated on the **orange** arrow leading from conception to death.



Effects of ACEs on Children

- ❑ Brain development
- ❑ Emotional and behavioral health
- ❑ Long-term physical health impacts

the brain's response to STRESS



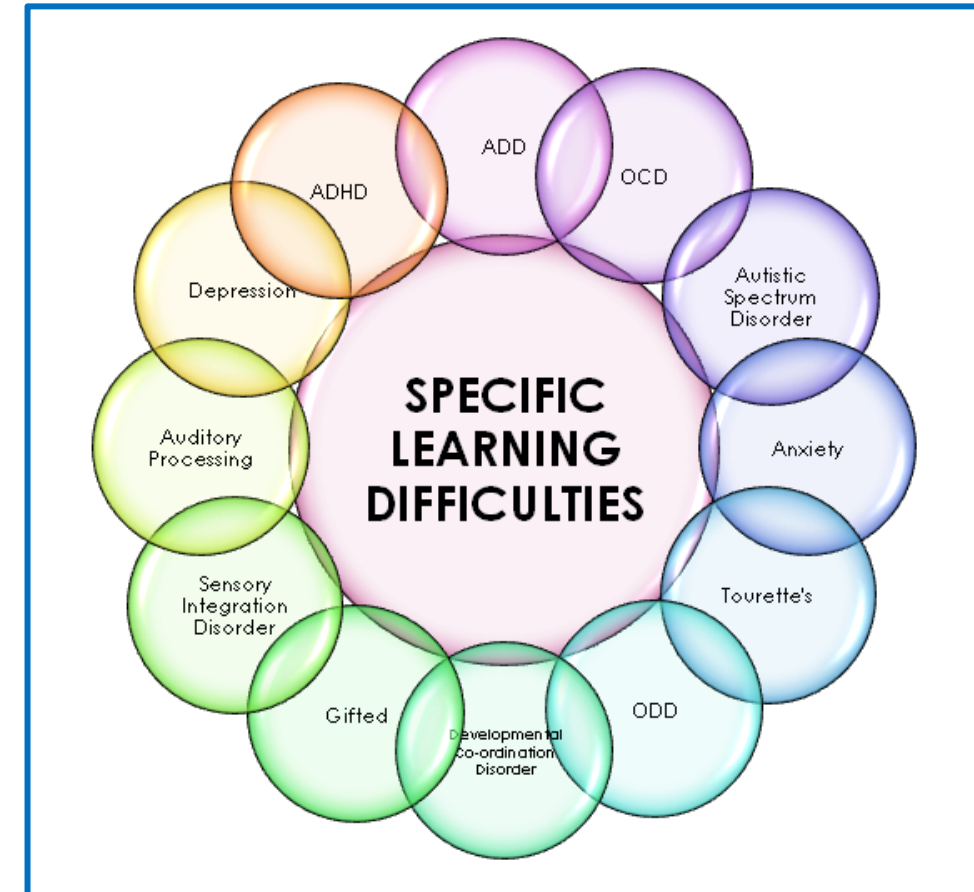
What is Lead Poisoning?

- ❑ Definition and sources (*e.g., paint, pipes, soil, toys*)
- ❑ Common environments with lead hazards



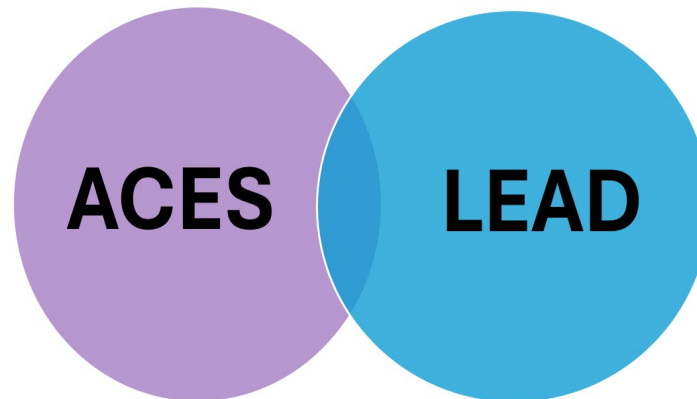
Health Effects of Lead Exposure in Children

- ❑ Developmental delays
- ❑ Learning disabilities
- ❑ Behavioral issues
(*aggression, attention problems*)
- ❑ Long-term consequences



Where ACEs and Lead Poisoning Intersect

- ❑ Overlap in high-risk populations
- ❑ Shared environments:
poverty, old housing, limited access to care

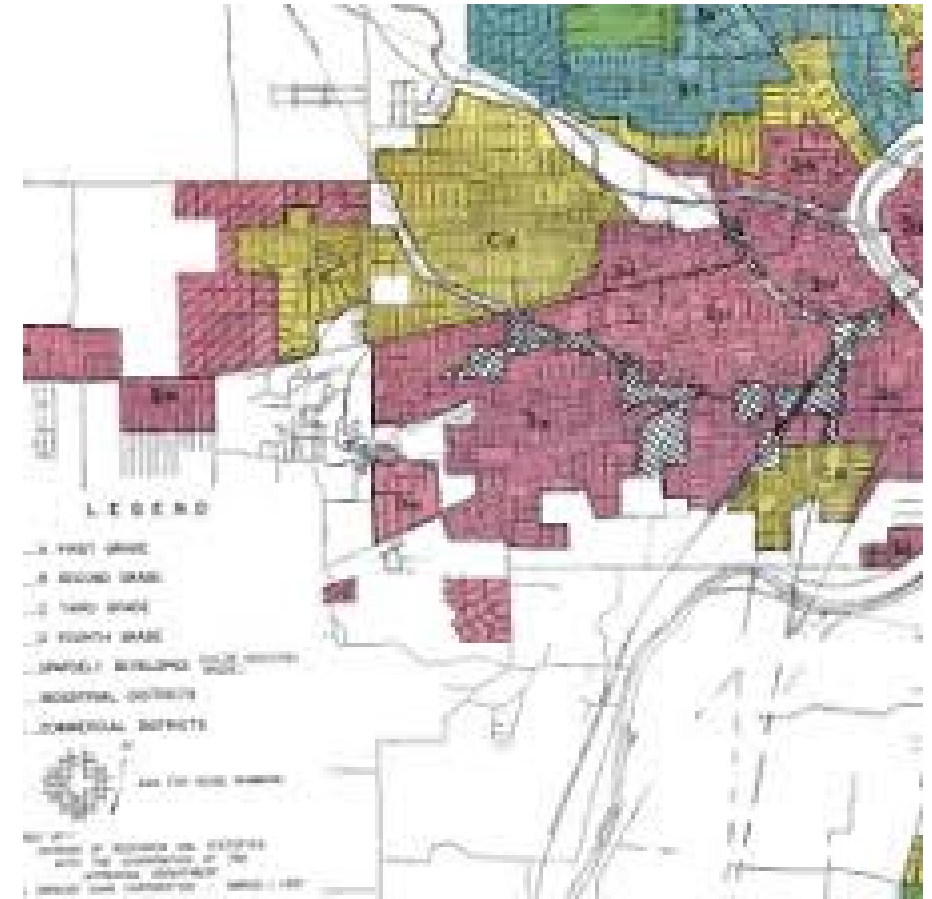


Compounding Effects

- ❑ Toxic stress + neurotoxic exposure = amplified risk
- ❑ Impact on school performance, health, and social development

Environmental Justice & Systemic Inequities

- ❑ Environmental racism and socioeconomic disparities
- ❑ Disproportionate impact on communities of color and low-income families



Prevention and Intervention



- ❑ Trauma-informed care
- ❑ Lead remediation and housing policy
- ❑ Pediatric screening and early intervention

Group thoughts & discussion

- "How do ACEs and environmental hazards show up in your community?"

Action, Programs & Resources

- Identify Activity
- Collaboration Models
- Integrated Approaches

RESOURCES

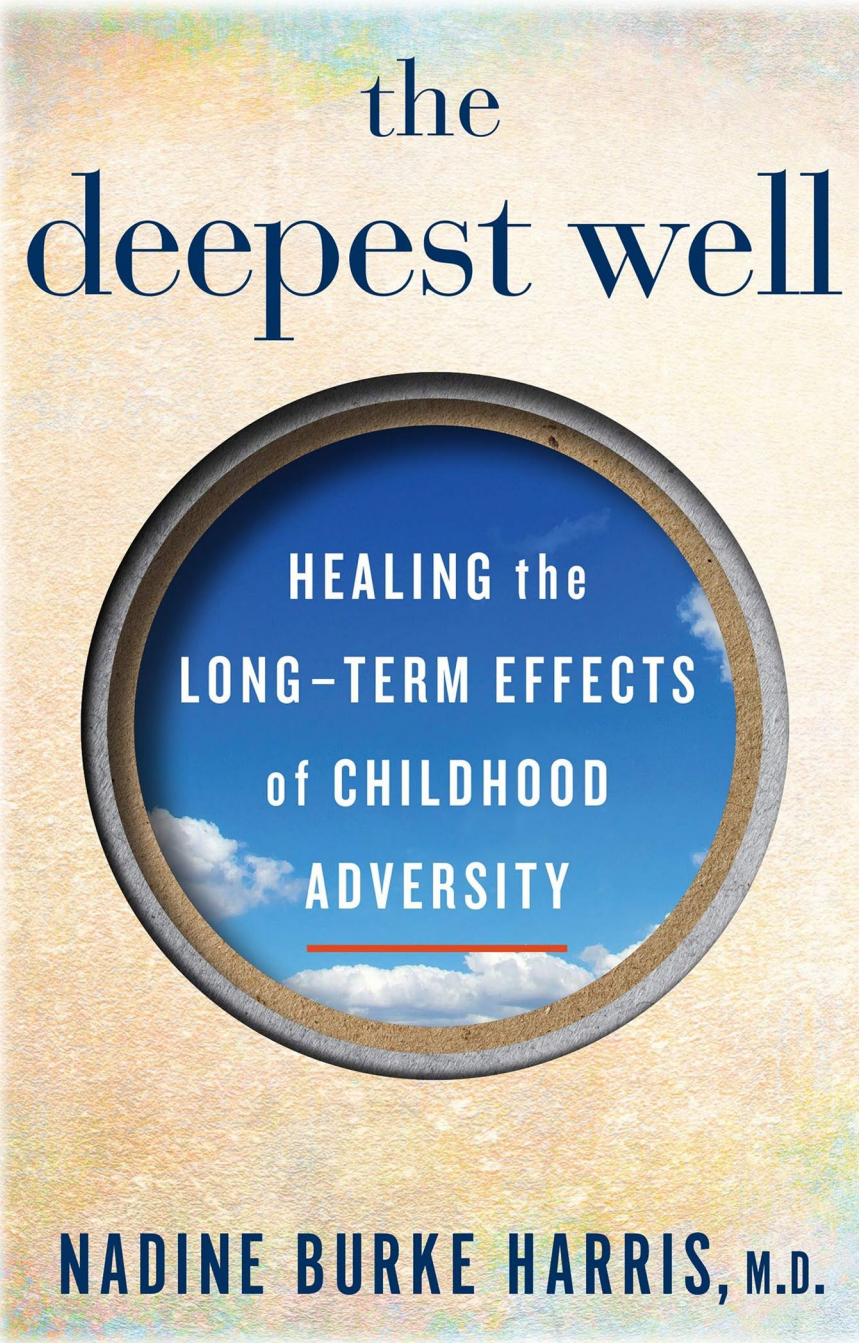
- <https://www.youtube.com/watch?v=95ovIJ3dsNk&t=28s>
- <http://acestudy.org>
- Acestoohigh.com
- Bruce Perry books
- Nadine Burke Harris



Nadine Burke-
Harris

► **Book:**
**Deepest
Well**

the
deepest well



HEALING the
LONG-TERM EFFECTS
of CHILDHOOD
ADVERSITY

NADINE BURKE HARRIS, M.D.



What Now

- ▶ **Reflect** on the ACE self-assessment survey
- ▶ If you have an ACE
Ask: "How Did It Affect My Later Life?"
- ▶ **Confide** in Someone
- ▶ **Be Open and Supportive**
if Someone Confides in You



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