UNDERSTANDING
Adverse Childhood Experiences
Building Self-Healing Communities
Early Adversity Increases Physical, Mental, Behavioral Problems, Scientists Report

Centers for Disease Control & Prevention, Kaiser Permanente Study

Over 17,000 study participants

The ACE Study confirms, with scientific evidence, that adversity early in life increases physical, mental and behavioral problems later in life.

Dr. Robert Anda & Dr. Vincent Felitti
Investigators
HUMAN NERVOUS SYSTEM

Nervous system ORCHESTRATES BODY FUNCTIONS & PERCEPTIONS

Neuroscience HELPS US UNDERSTAND WHY A C E s ARE SO POWERFUL

Brain
Spinal Cord
Peripheral Nerves

Single Nerve Cell

ACE Interface © 2014
SYNAPTIC DENSITY

At Birth  Elementary Age  Puberty

Single Neuron
CONCEPTION

Childhood Experience

Safety

Danger

Fight
Flight
Freeze

Survive
Worst
Conditions

Adaptation

People
Process
Possibility

Survive Best
Conditions - Vulnerable in Worst

Adult Functioning
What kind of situations might be a good match for a person who tends to be edgy, hypervigilant, emotionally detached, or quick to act?
ADAPTATIONS VS EXPECTATIONS

WHEN BIOLOGY collides WITH SOCIAL EXPECTATIONS we run into TROUBLE
STRESS
Interpretations Can Differ
set points in place by EARLY ADULTHOOD

At Birth
SYNAPTIC DENSITY

Elementary Age

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We have a collective CHOICE
The ACE Study
FINDING MORE CONNECTIONS

how multiple forms of childhood adversity can affect many important PUBLIC HEALTH PROBLEMS
Adverse Childhood Experiences
ARE COMMON

**Household Dysfunction**
- Substance Abuse: 27%
- Parental Sep/Divorce: 23%
- Mental Illness: 17%
- Battered Mothers: 13%
- Criminal Behavior: 6%

**Neglect**
- Emotional: 15%
- Physical: 10%

**Abuse**
- Emotional: 11%
- Physical: 28%
- Sexual: 21%

**TOTAL 10 ACEs**
ACE Score = Number of ACE Categories

ACE Scores Reliably Predict Challenges During the Life Course
ACE Score and Health Problems

% with Health Problems

- 0 ACE
- 1 ACE
- 2 ACEs
- 3 ACEs
- 4 ACEs
- <5 ACEs

Dose-Response Relationship
Anxiety
Depression
Difficulty Concentrating

SMOKING
<table>
<thead>
<tr>
<th>Examples of ACE-Attributable Problems</th>
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<tbody>
<tr>
<td>Alcoholism &amp; Alcohol Abuse</td>
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<tr>
<td>Chronic Obstructive Pulmonary Disease</td>
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<tr>
<td>Coronary Heart Disease</td>
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<tr>
<td>Depression</td>
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<tr>
<td>Drug Abuse &amp; Illicit Drug Use</td>
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<tr>
<td>Fetal Death</td>
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<tr>
<td>Intimate Partner Violence</td>
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<td>Liver Disease</td>
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<td>Mental Health Problems</td>
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<td>Obesity</td>
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<td>Sexual Behavior Problems</td>
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<td>Smoking</td>
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<td>Unintended Pregnancy</td>
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<td>Violence</td>
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<td>Workplace Problems</td>
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ACEs are Common, Interrelated, Powerful

- High ACE Scores in Population
- Increased Risk of Multiple Health and Social Problems
- Intergenerational Transmission of ACEs
Population Attributable Risk

- Drinking & driving past 30 days: 45%
- Cancer: 24%
- Cardiovascular disease: 26%
- Alcoholism: 65%
- Workplace injury: 22%
- >3 falls require treatment in 90 days: 25%
- Currently smoking: 31%
- Chronic depression: 17%
- Asthma: 15%
- Diabetes (insulin): 51%
- High risk for HIV: 17%
We have the power to shift the dynamics that lead to high ACE scores.
Core Protective Systems

“Nurturing the healthy development of these protective systems affords the most important preparation or ‘inoculation’ for overcoming potential threats and adversities in human development. Similarly, damage or destruction of these systems has dire consequences for the positive adaptive capacity of individuals.”

*Ann Masten, 2009*
Attachment & Belonging

RELATIONSHIPS
with caring and competent
teople are
VITAL
contributors to
resilience & recovery
Community, Faith & Cultural Processes

WE

foster thriving communities
Community Capacity Development

Leadership Expansion

Coming Together

Shared Learning

Results-Oriented Decisions
lifting all beings
It is shaped by our thoughts, our conversations, the way we relate with one another in relationships, in families, and in communities.
Thank YOU!

www.aceinterface.com