

Adverse Childhood Experiences in Primary Care

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 - ❖ none

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Mitigating Potential Bias

- ❖ The information presented in this presentation is evidence based and has been created alongside pending BC guidelines ([BCguidelines.ca](https://www.bccguidelines.ca) and the Doctors of BC, Practice Support Program: ACEs Module)

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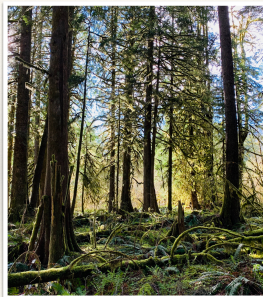
Who Am I?

1. I'm a wife and **mom**
2. I'm a **physician**:
 - ❖ MD, CCFP University of British Columbia
 - ❖ Forensic Psychiatric Hospital GP
 - ❖ Fraser Health Authority Youth Clinic Physician
 - ❖ Mental Health and Parenting Educator
3. **Mindfulness** practitioner

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A Sensitive Topic

- ❖ This topic can bring up strong feelings about our own past
- ❖ Recharge
- ❖ Check in with your support system
- ❖ Practice self compassion
- ❖ Consider contacting the Physician Health Program through the Doctors of BC



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Learning Objectives

- ❖ Determine the importance of the ACEs study as a major healthcare concern
- ❖ Describe the physiologic changes that occur when a child is exposed to chronic toxic stress.
- ❖ Describe how we can prevent ACEs and learn to recognize and buffer children from the effects of ACEs.
- ❖ Establish the importance of ACEs and Trauma Informed Practice in a primary care setting

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Adverse Childhood Experiences Study

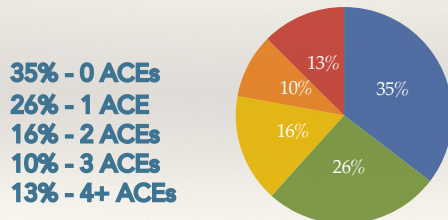
<https://vimeo.com/139998006>



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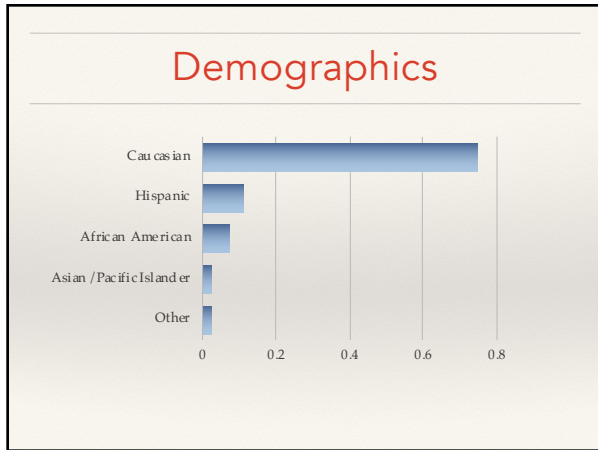
Prevalence of ACEs Original ACE Study 1998

- ❖ 17,337 participants
- ❖ Largely college educated 75.2% ('some college' or 'college graduate or higher')



65% of participants had 1 or more ACEs

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Adverse Childhood Experiences

Personal:

Abuse

1. Physical Abuse
2. Emotional Abuse
3. Sexual Abuse

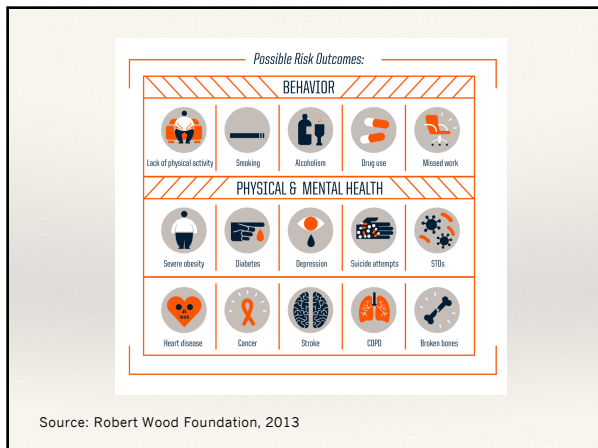
Neglect

4. Physical neglect
5. Emotional neglect

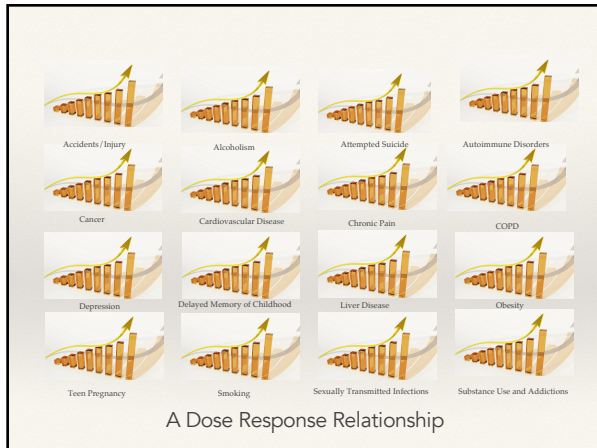
Household Dysfunction:

6. Mental Illness
7. Substance abuse
8. Loss of a parent through divorce, death, separation
9. Witnessing violence in the home
10. Incarceration of a family member

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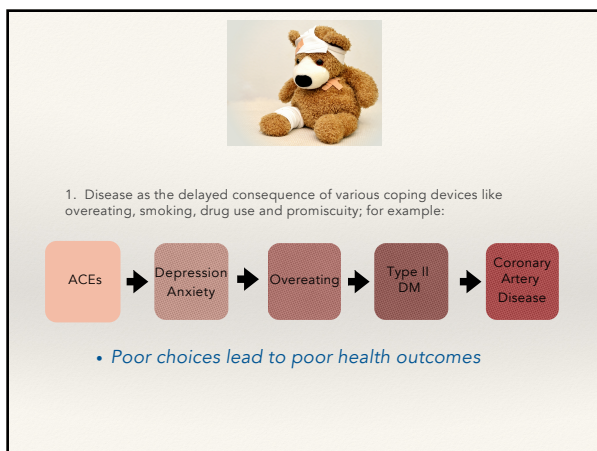
Dr. Vincent Felitti
Co-author of the ACE Study

"Two broad mechanisms exist by which adverse childhood experiences transform into biomedical disease:



Felitti, V. (2009) Commentary Adverse Childhood Experiences and Adult Health. Academic Pediatrics 2009;9:131-2

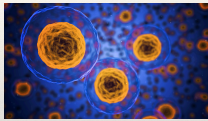
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2. **Disease caused by chronic stress** mediated by chronic hypercortisolemia and proinflammatory cytokines; for example:

- ♦ chronic headache or back pain
- ♦ primary pulmonary fibrosis
- ♦ osteoporosis
- ♦ coronary artery disease




A chronically activated or easily activated stress response leads to cellular changes that increase risk for poor health outcomes

Felitti, V. (2009) Commentary Adverse Childhood Experiences and Adult Health. Academic Pediatrics 2009;9:131-2

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BIO-PSYCHO-SOCIAL-SPIRITUAL

- ♦ How does early adversity translate into disease in adulthood?
How do ACES get 'under our skin'?



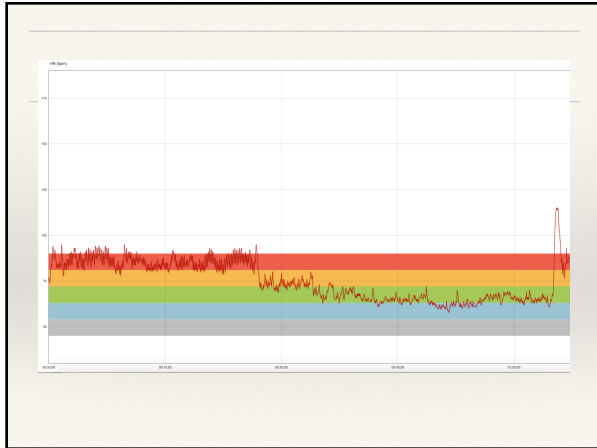
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Neuroscience of Stress and Disease

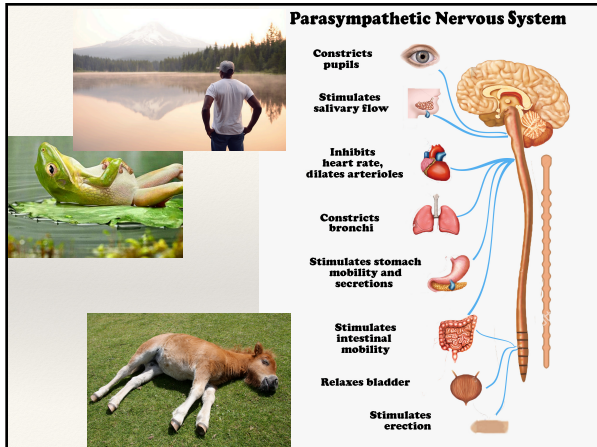
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graph TD
    A[Chronic Stress] --> B[Elevated stress hormones (glucocorticoids)]
    B --> C[Overstimulation of neurons]
    C --> D[Retraction of dendrites (cell shrinkage) to avoid death]
    D --> E[Shrinkage of the prefrontal cortex and hippocampus; overactivity of the amygdala]
    E --> F[Compromised PFC and Hippocampus = poor impulse control; development of poor coping mechanisms]
    
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Polyvagal Theory- Dr. Stephen Porges

♦ RED - Life threat – FREEZE – Parasympathetic (Dorsal Vagal)

♦ YELLOW - Danger - FIGHT OR FLIGHT - Sympathetic

♦ GREEN – Safety – Parasympathetic (Ventral Vagal)

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Not All Stress is Created Equally

- ❖ Normal stress: (Helps us build resilience)
 - Positive stress: new job, new baby
 - Tolerable stress: natural disaster, loss of a loved one
- ❖ Destructive stress:
 - Toxic stress - poverty, abuse, neglect

Allostatic Load: the cost of overwhelming stress which creates chronic wear and tear on the body

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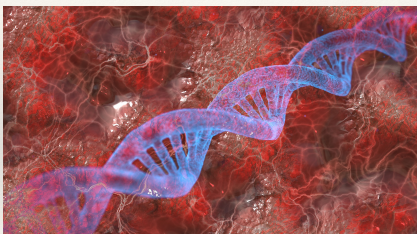
Stress is Universal but...

- ❖ "The more it happens...
 - ❖ The longer it lasts...
 - ❖ The earlier it starts...
 - ❖ The more trust is betrayed...
 - ❖ The more it is at the hands of other people...
- The more challenging it's effects"

Bloom and Covington, 2018

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Epigenetics



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Epigenetics

Meaney and Szyf's rats



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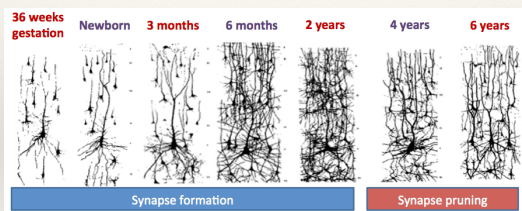
Brain Development

- ❖ We get good at what we practice
- ❖ "Neurons that fire together, wire together."
- ❖ Pruning



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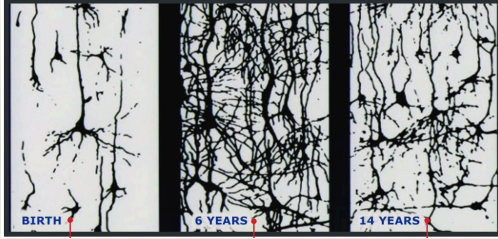
Pruning Ages: before delivery – 6 years old



Center on the Developing Child – Harvard University

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Pruning Ages: Birth – 14 Years



Center on the Developing Child – Harvard University

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Vittorio Gallese, MD - Street Youth of Sierra Leone

- ❖ The longer youth were exposed to maltreatment, the higher the percentage of anger false alarms
- ❖ Maltreated youth are more likely to interpret negative emotions as aggressive and act out accordingly



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Medicine:

Excessive sympathetic stimulation (to name a few):

- ❖ Headaches
- ❖ Stomach aches
- ❖ Muscle tension and tightness
- ❖ Sleep problems
- ❖ Depression
- ❖ Anxiety
- ❖ Weight gain
- ❖ Memory and concentration impairment



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What does this all mean for you?



- ❖ Band Aids vs true HEALING
- ❖ ACEs tend to be transgenerational

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The Burning House



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What to do? What to do???



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This work is REWARDING

Technician vs Healer



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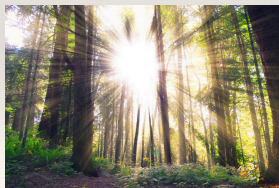
Tackling ACEs

- ❖ Primary Prevention - Social Determinants of Health; education of parents, teachers, physicians, anyone who works with youth
- ❖ Secondary Prevention - identify people at risk and help them manage/mitigate their stress: mindfulness, CBT, yoga, exercise, sleep hygiene, use of technology, substances
- ❖ Tertiary Prevention - treatment for those who are sick

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Biggest Bang for your Buck...

- ❖ SECURE ATTACHMENT RELATIONSHIPS are the ANTIDOTE to TRAUMA
- ❖ Examine our own ACEs, patterns of parenting, and communicating with those around us. Utilize and promote SELF CARE




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Trauma Informed Approach

A behavioural system that protects the biologic


- ❖ Safety
- ❖ Trustworthiness and Transparency
- ❖ Peer Support
- ❖ Collaboration and Mutuality
- ❖ Empowerment, Voice and Choice
- ❖ Cultural, Historical and Gender Issues



SAMHSA, July 2014

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If we want to teach RESILIENCE
we need to EMBODY it.



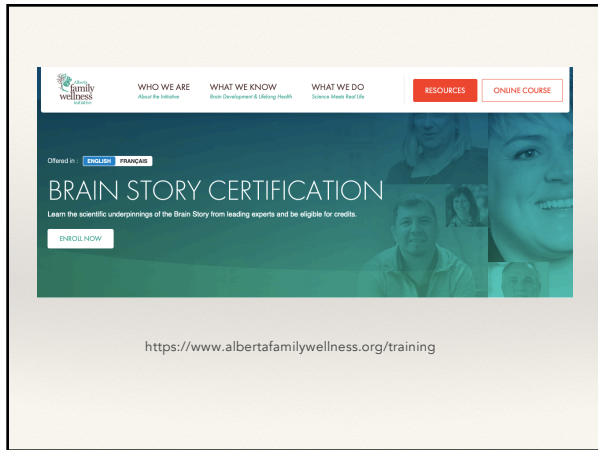
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Beauty and Healing Power of Empathy and Compassion

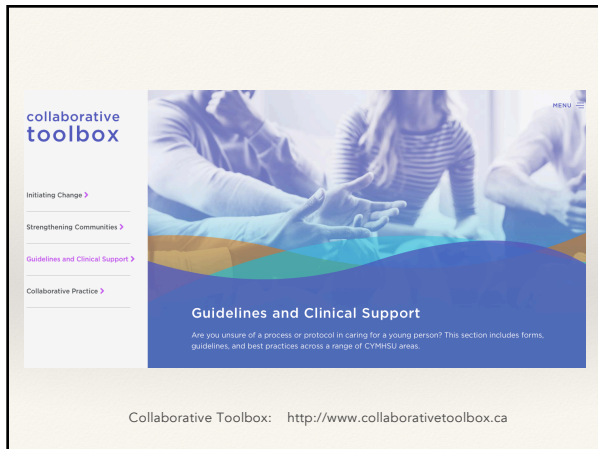


Do people feel SAFE around me?

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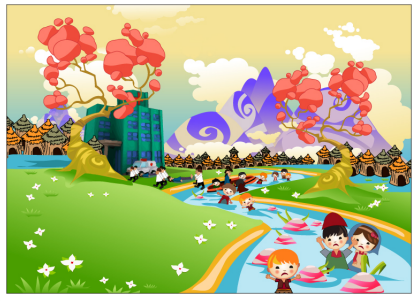


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Village of Downstream – A Contemporary Fable



~ Donald D. Ardell

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Is it important for your physician to know about ACEs? Why?

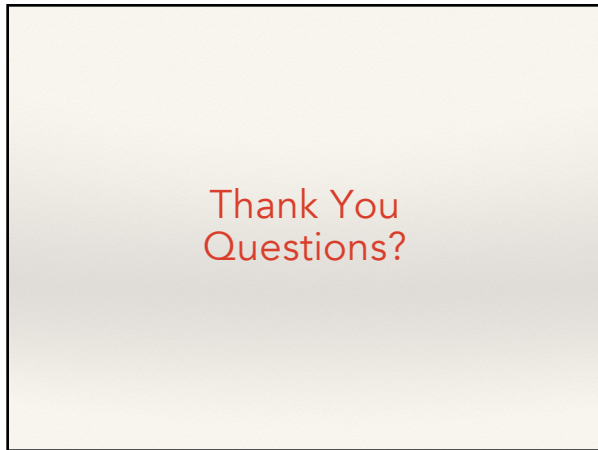
- ❖ "Absolutely! Learning about the whole person - giving us tools to be successful, not just giving us medication."
- ❖ "Yes, as with working with children, adults who feel heard and cared for will be more receptive to healing."
- ❖ "Yes, absolutely! Mental health affects physical health. I just had a doctor's appointment and my physician did not ask me about how I felt about what is going on with my health."

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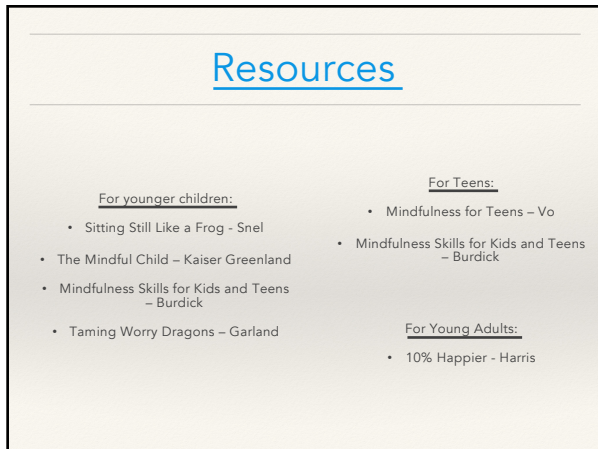
Take Home:

- ❖ Our **biology**, our **genetics/epigenetics** are wise.
- ❖ If a major root cause of illness is **relational**, the antidote then must also be **relational**.
- ❖ **We can ALL be integral** to changing our culture by genuinely slowing down and taking time to nurture our children in the Village of Upstream

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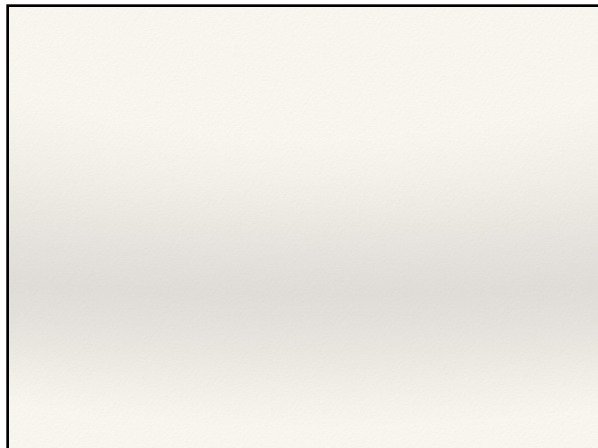
Videos

- ❖ The role of attachment in infancy on later mental and physical health outcomes: <https://www.youtube.com/watch?v=6bul1meciGE>
- ❖ Attachment and Resilience: <https://www.youtube.com/watch?v=C-ZlUJr8nE>
- ❖ Doc Zone: Angry Kids Stressed out Parents <https://www.youtube.com/watch?v=xCHBB6F0iMk>
- ❖ Stress: Portrait of a Killer <https://www.youtube.com/watch?v=eYG0ZuTv5rs>
- ❖ The Ghost in Your Genes (epigenetics): <https://www.youtube.com/watch?v=fMxgkSqZoJs>
- ❖ Epigenetics Nova: <https://www.youtube.com/watch?v=D44cu7v9x1w>

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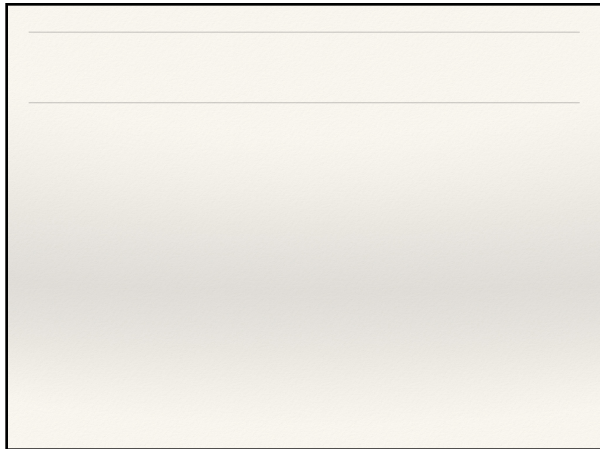
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