# Adverse Childhood Events: Lifelong Consequences and How to Overcome Them

### Presented by

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### Board Certified Psychiatric Pharmacist Member of the College of Psychiatric and Neurologic Pharmacists

### **Disclosure**

Dr. Angelo Pezzote will be discussing off-label uses of selected FDA-approved drugs in this program. Neither Dr. Angelo Pezzote, the presenting speaker, nor the activity planners of this program are aware of any actual, potential or perceived conflict of interest.

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### COURSE OBJECTIVES

*Participants completing this program should be able to:* 

- 1. Identify how adverse childhood experiences can impair the developing brain and alter the response to psychological stress.
- 2. Distinguish between secure, anxious and avoidant forms of attachment.
- 3. Describe how maltreatment can impair stress resilience, mood regulation, and impulse control across generations.
- 4. List several ways that early adversity can undermine the immune system.
- 5. Discuss how self-care and lifestyle can help overcome adverse childhood events.
- 6. Identify psychological pathways that can protect the brain from the toxic effects of mood, anxiety, trauma, and memory related disorders related to adverse childhood events.

# **Policies and Procedures**

- 1. Questions are encouraged. However, please try to ask questions related to the topic being discussed. You may ask your question by clicking on "chat." Your questions will be communicated to the presenter during the breaks. Dr. Pezzote will be providing registrants with information as to how to reach him by email for questions after the day of the live broadcast.
- 2. If you enjoyed this lecture and wish to recommend it to a friend or colleague, please feel free to invite your associates to call our registration division at 866-652-7414 or visit our website at www.IBPceu.com to register for a rebroadcast of the program or to purchase a copy of the DVD.
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- a) You may elect to download the webinar through Thursday, September 3, 2020. IBP will automatically provide you with a new link to receive the program.
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All licensed health professionals are required to complete all pages. Please transmit by Thursday, September 3, 2020.

7. IMPORTANT: Your certificate of completion will be available by email, mail or fax following receipt of your fully completed evaluation form. If you request the certificate by mail, it will be mailed within 2 business days upon receipt of your fully completed evaluation form. In the unlikely event that you lose your certificate, please send your request in writing and a check for \$20 payable to IBP at PO Box 2238, Los Banos, CA 93635, email reporting@ibpceu.com, or call 866-652-7414.

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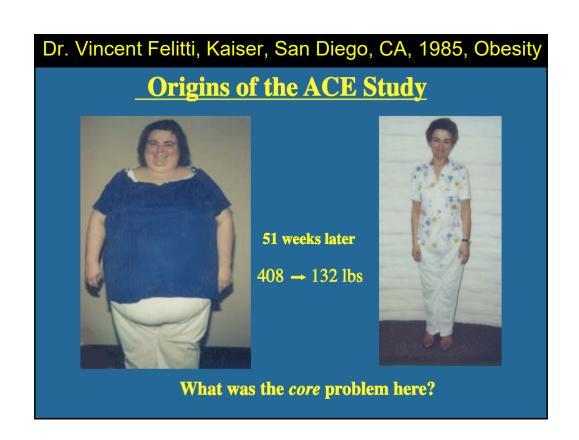




Our greatest pain, once integrated, becomes our greatest strength.

Anna Freud





# ACEs Are Very Common, But Largely Unrecognized

Dr.'s see patients because of disease. Patients see Dr.'s because of anxiety. Therein lies the problem between the two. Michael Balint

Landmark Public Health Study by Kaiser Permanente (Felitti) and CDC (Anda) 1995-1997. Largest of its kind (17,337 adults). 50 yrs back & lifespan follow up 25yrs fwrd. >80 Publications. Internationally recognized. In depth analysis of the medical, social, and economic consequences in adults of ACE. Reveals a powerful relationship between our emotional experiences as children and our health as adults. ACE are the basis for and primary determinant of the health, social, and economic well-being of our nation.

Middle Class Sample San Diego: 80% White/Hispanic, 10% Black, 10% Asian, Avg Age 57, Men 50.5% Women 49.5%, 75% College, Employed, Health Insurance

### ACEs Are Very Common, but Typically Unrecognized

Dr.'s see patients because of disease. Patients see Dr.'s because of anxiety. Therein lies the problem between the two. Michael Balint

### 10 categories (not events) of equal impact. An ACE Score = $\Sigma$

- 5 categories of Household Dysfunction 85%: {growing up with someone in the home: substance abuse 27%, loss of biological parent <18 (death, suicide, murder, divorce, separation, abandonment, foster, adoption) 23%, depression, suicide, anxiety, other DSM 5 dx, facility 17%, domestic violence of mother 13%, incarceration 5%}
- <u>3 categories of Abuse 61%</u>: physical (not spanking) by parent 28%, contact sexual by anyone 22% (16% male, 28% female self acknowledged), psychological/emotional by parent (recurrent humiliation) 11%
- 2 categories of Neglect 25%: emotional 15%, physical 10% p<0.001

# What the ACE Study Revealed?

- $ightharpoonup \ge 1 \text{ ACE } 66.66\% (2 \text{ in } 3)$
- ► 1 ACE 25% (1 in 4)

If 1 ACE, 87% chance of 1 other & 50% chance of 3 others

- ► 2 ACE 15% (1 in 6-7)
- ► 3 ACE 10% (1 in 10)
- ► 4 ACE 6% (1 in 16-17)
- $\triangleright$   $\geq$  5 ACE 11% (1 in 9)
- ► 1-3 ACE 50% (resilience factors) that's life? (1 in 2)
- ightharpoonup 24 ACE 17% (1 in 5-6)

p<0.001

# Trauma - The Real Terrorist In America

For Many, The War Begins At Home



► CDC data (only what's *reported*): 1 in 8 witness mothers hit. 1 in 5-6 women raped (lifetime). 1 in 5 molested <18. 1 in 4 physically abused. 1 in 4 alcoholism. 1 in 3 dyads intimate partner violence. Woman 2x DV than breast cancer (lifetime). Since 2001, more women killed by male partners/family member than all Americans killed in 9/11, Iraq, & Afghanistan. Each year, 2x kids & teens die by firearms than cancer. 1 deployed soldier PTSD: 10 kids DTD from caregivers at home. 4 in 5 prisoners spent time in foster care. ZIP Code.





# The Nation's Top Secrets



shame, social taboos

Nice people don't talk about such things: time, secrets, shame, social taboos about exploring certain realms of human experience, politeness, not to pry, repressed, can't know what you know, suppressed, can't speak the unspeakable, don't recognize the link between their past and present...all lead to obscured and ultimately lost data

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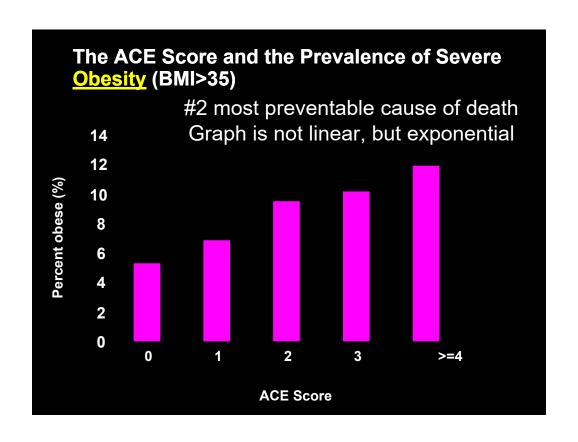
# What's the Impact of Our "Pathogenic Secrets?"

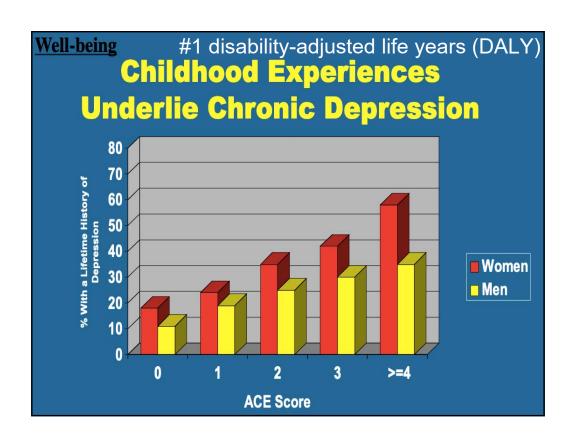


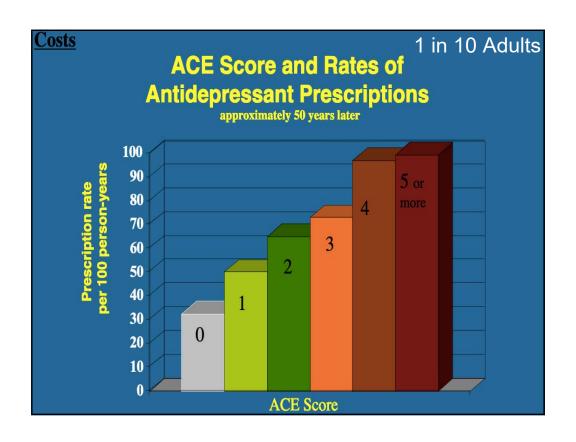
The bull in the China shop

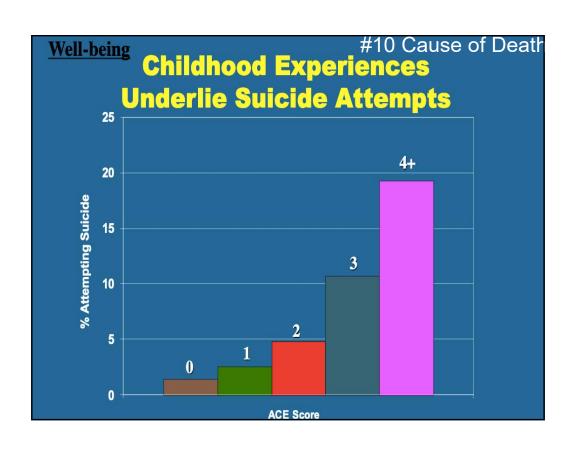


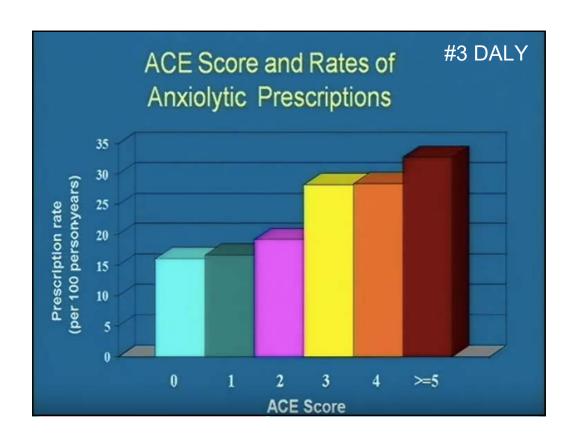
The elephant in the room

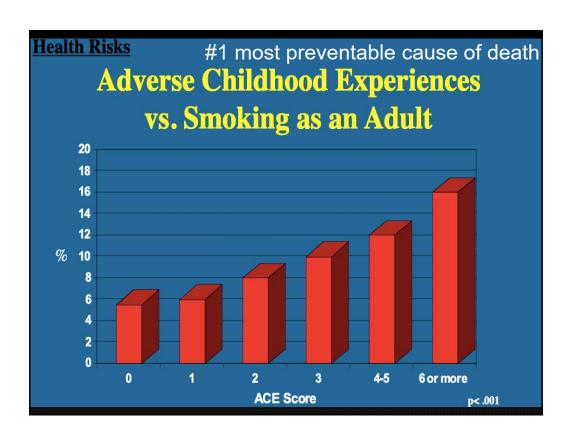


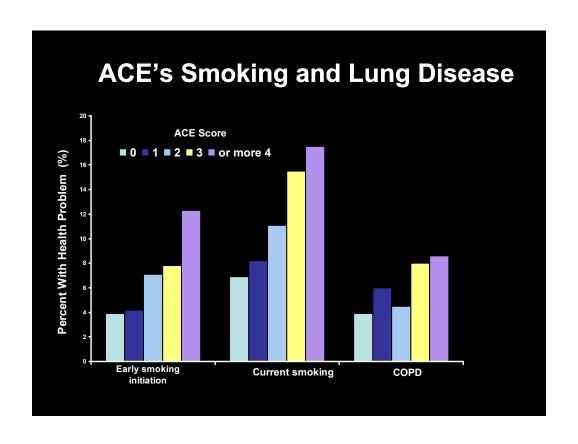


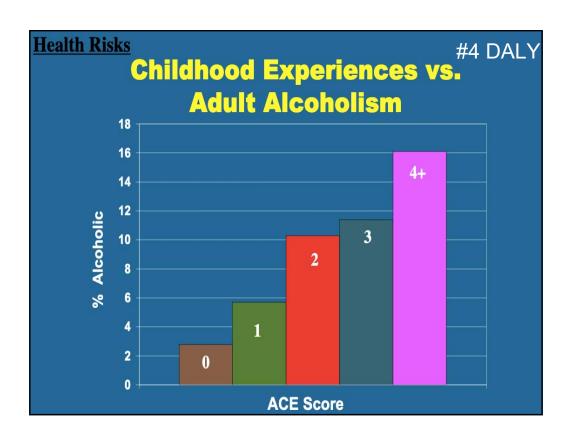


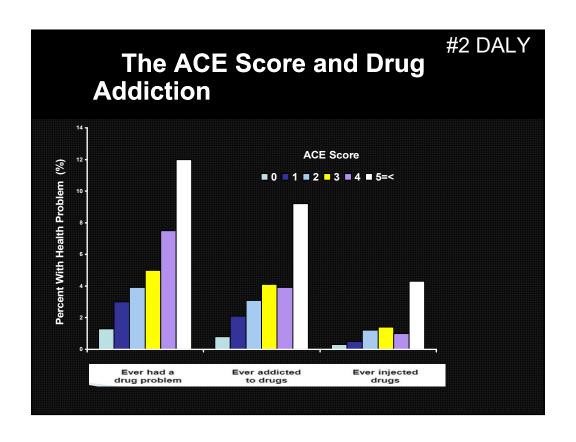


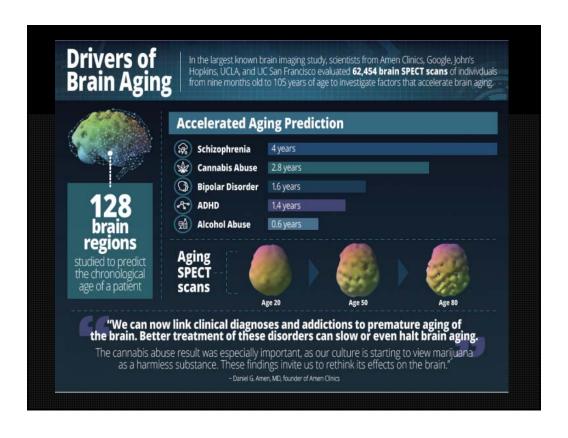


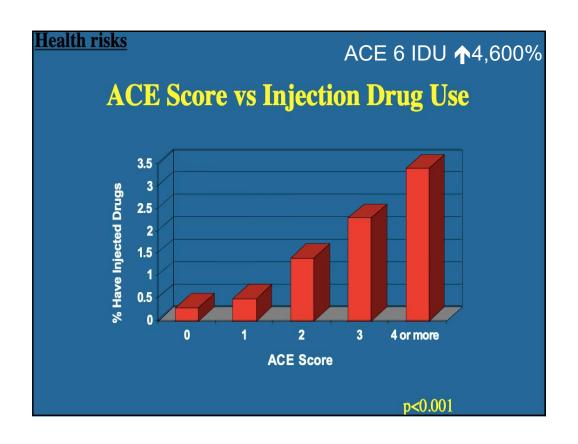


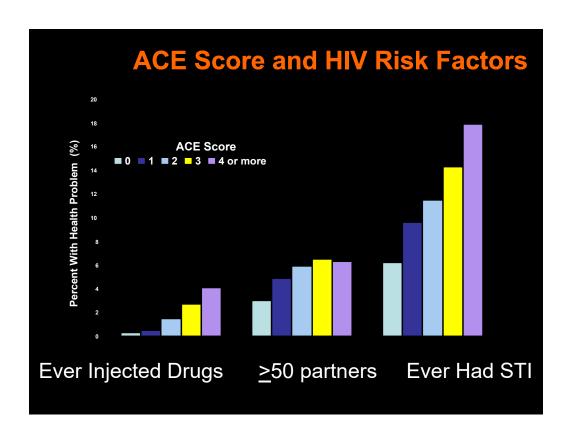


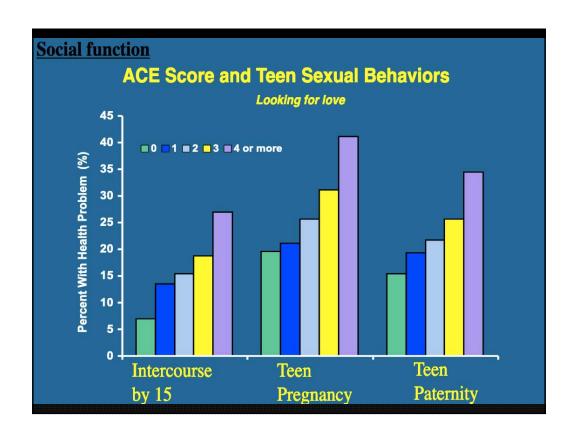


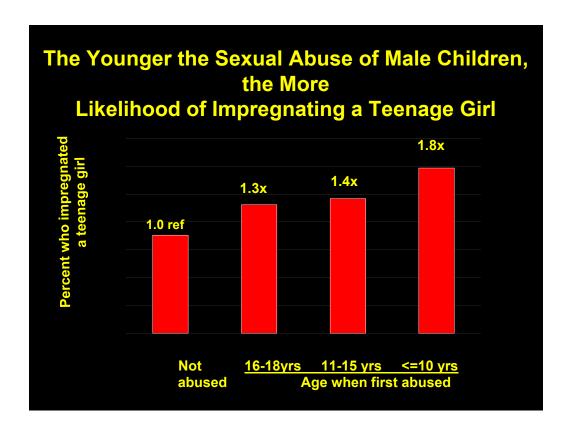


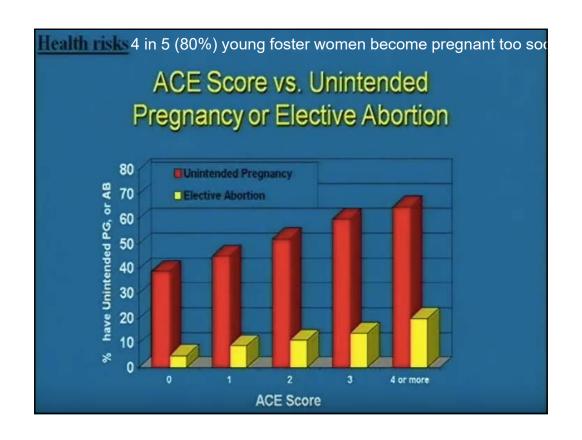


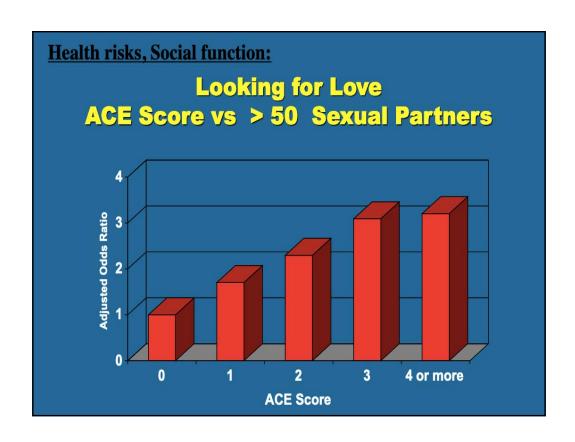


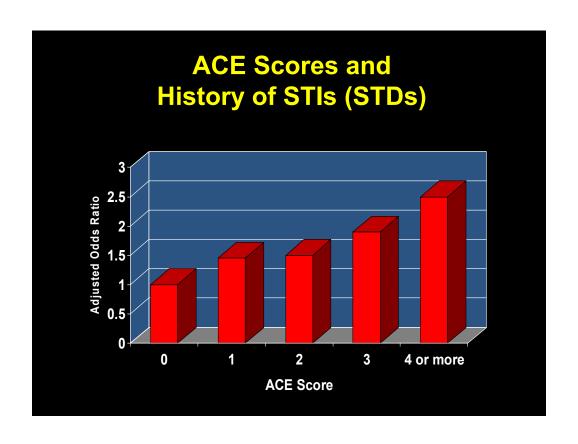


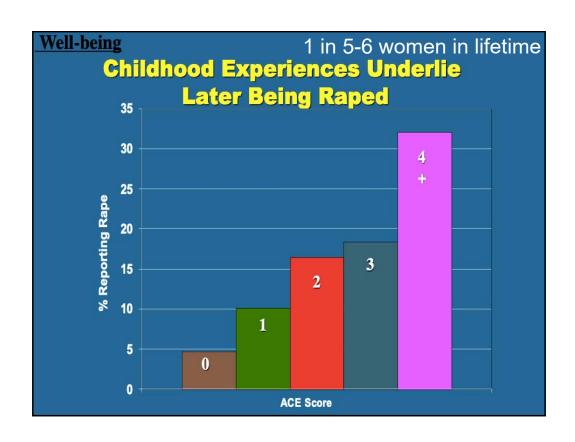




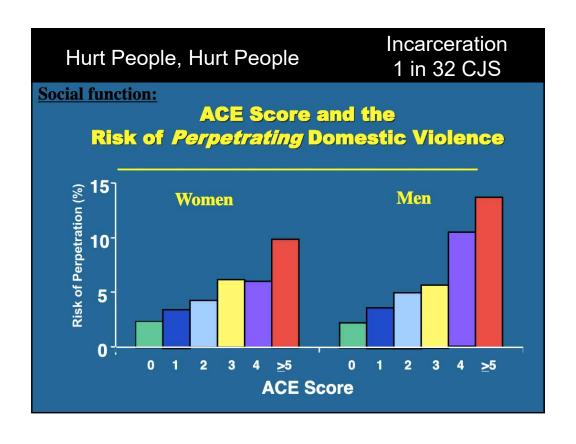




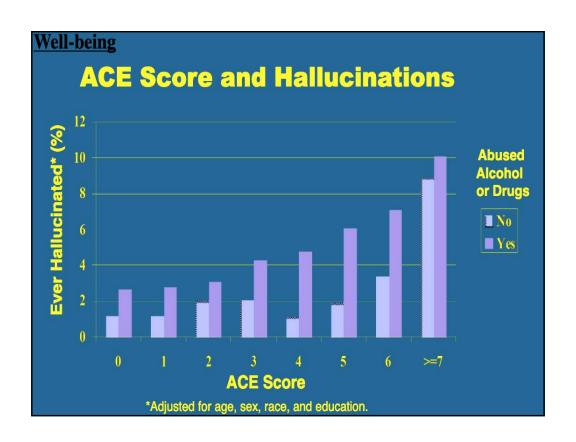


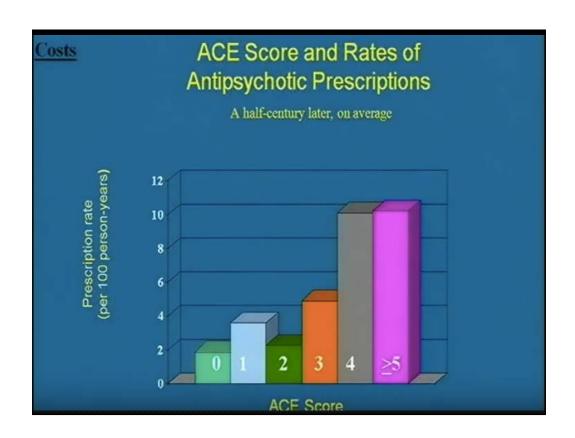






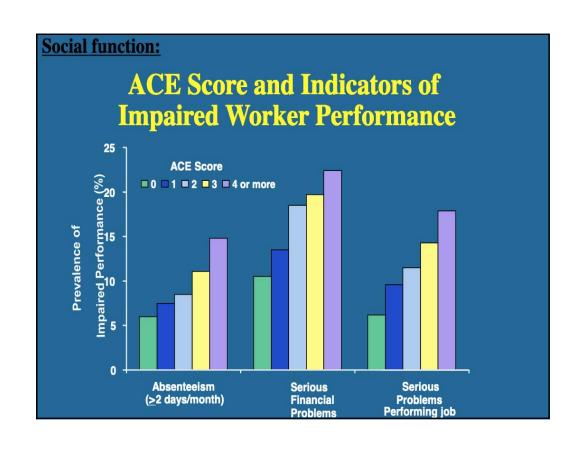
Estimates of the Population Attributable Risk* (PAR) of ACEs for Selected Outcomes in Women		
Mental Health:	PAR	
Current depression	54%	
Depressed affect	41%	
Suicide attempt	58%	
Promiscuity	48%	
Drug Abuse:		
Alcoholism	65%	
Drug abuse	50%	
IV drug abuse	78%	
Crime Victim:		
Sexual assault	62%	
Domestic violence	52%	

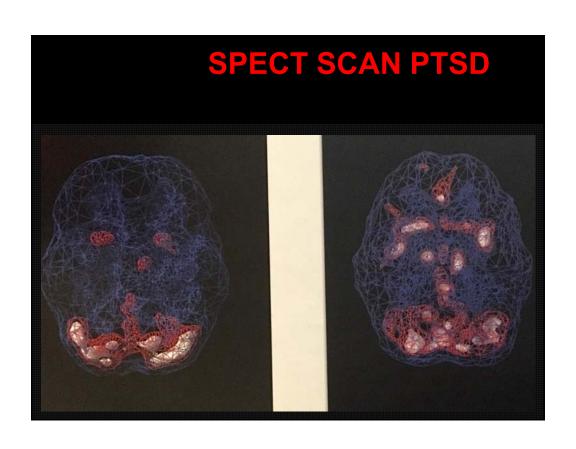




# **ACEs Connection with Homelessness**

- More than half (>50%) of sample ACE Score ≥ 4
- ACEs connection to mental illness and substance abuse
- Mental illness and substance abuse problems are more common among homeless people
- 40-50% of foster youth become homeless
- 40% homeless youth identify as LGBTQ
- Even non-homeless people with either mental illness or substance abuse problems are less likely to hold a job





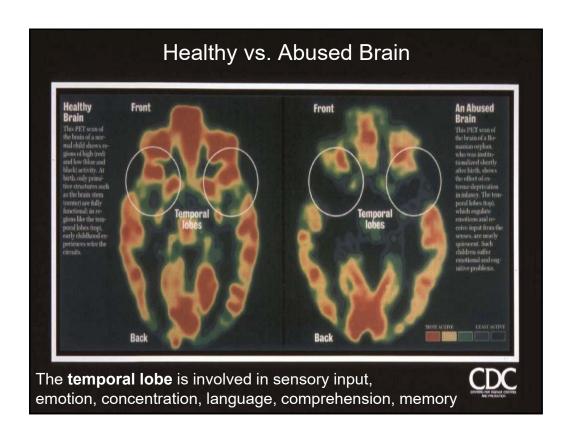
# **Chronic Stress and The Brain**

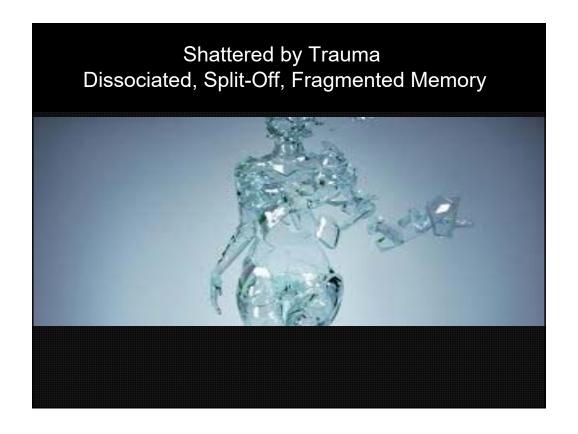
- Scans show that individuals who have chronic stress have:
  - Overactive enlarged amygdala (fear/negativity/anger)
  - Underactive shrunken frontal lobes (executive function) and hippocampus (memory)
- Executive Function is compromised during chronic stress
  - Attention and Concentration
  - → Impulse Control and Emotional Control
  - Short-Term Memory
  - Long-Term Memory
  - Insight and Planning
  - Judgment and Decision-Making

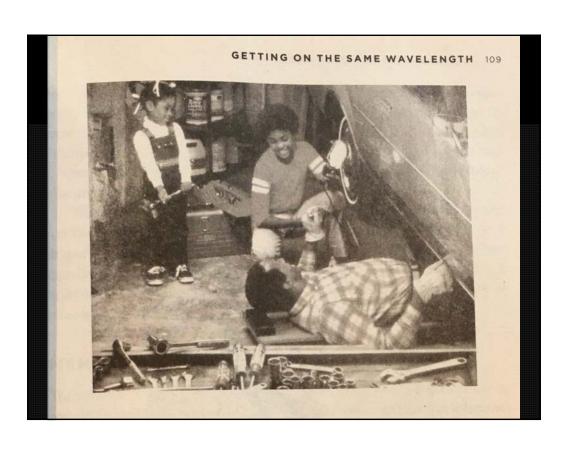
# **Chronic Stress, Inflammation and the Aging Brain:**

# Sickness Behavior / Sundowning

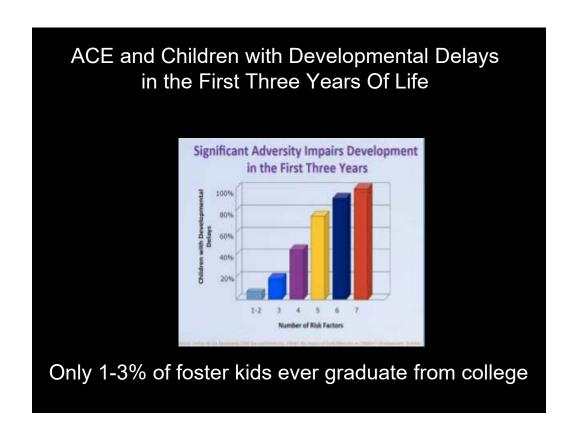
- Increased sensitivity to pain
- Loss of interest in food & pleasurable activities
- Social withdrawal
- Disordered sleep architecture
- ► Fatigue, cognitive fuzziness from cytokines that give us brain fog
- Increased inflammation with aging can drive mood and cognitive symptoms
- Depressed and/or Anxious Mood

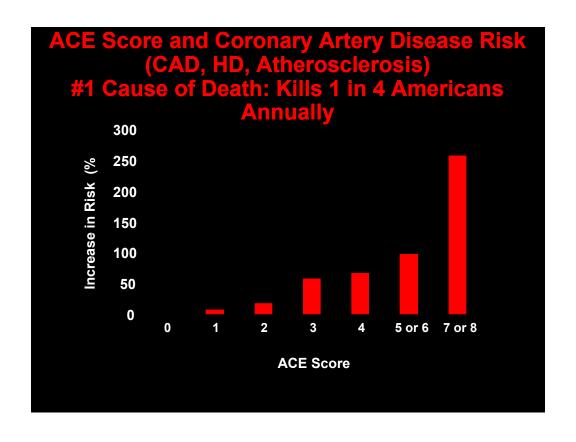




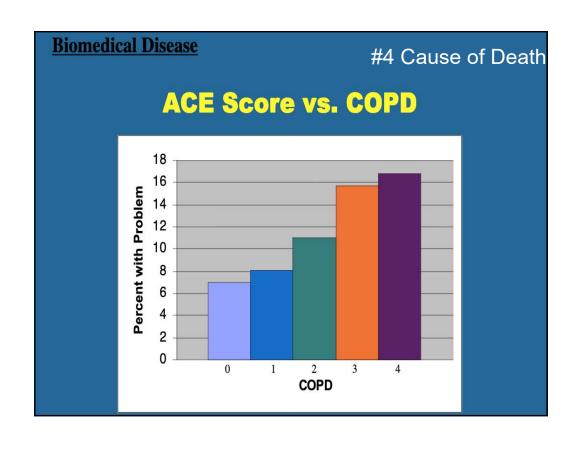


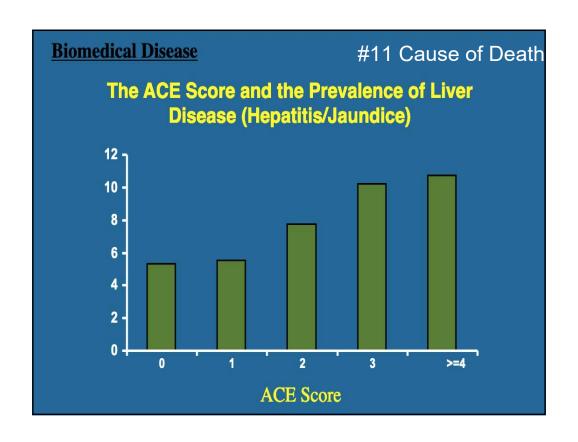


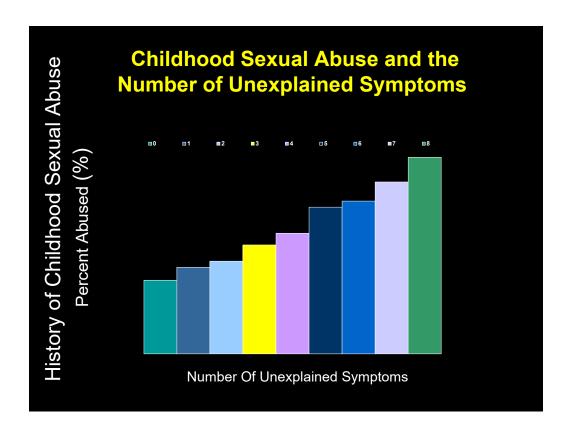


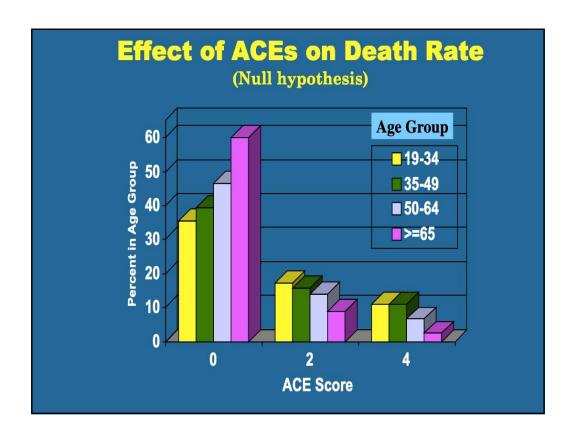


Biomedical disease  ACEs Increase Likelihood of Heart Disease*			
Physics Physic	tional abuse sical abuse al abuse sestic violence tal illness stance abuse sehold criminal tional neglect	1.7x 1.5x 1.4x 1.4x 1.4x 1.3x 1.7x 1.3x 1.4x	
	rrection for age, race, education. Circulation, Sept 2004.	on, and conve	entional riskactors like smoking and









### **How Does This Play Out? U.S. Life Expectancy**

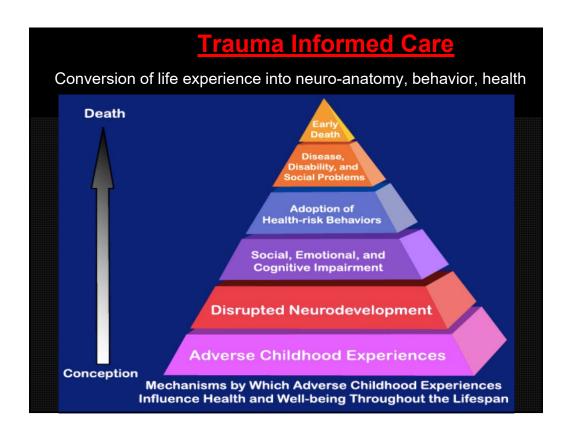
U.S. spends more money on healthcare than any other country in the world (nearly twice as much per person)

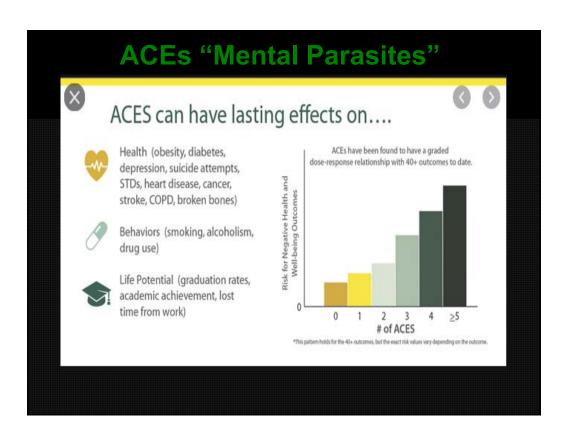
U.S. 78.7 years ranks 53<sup>rd</sup> in the world (John Hopkins); decreasing 2015

It's 82.3 years for comparable developed countries

Only 1/2 of Americans reach age 78; 1/3 die by age 65; Zip code

Life Experience and its sequela (aka the standard American lifestyle), is the leading cause of suffering, disease, mental illness, social ills, and premature death





# **Adverse Childhood Experiences (ACE)**

### The body weeps the tears that the eyes refuse to shed. Proverb

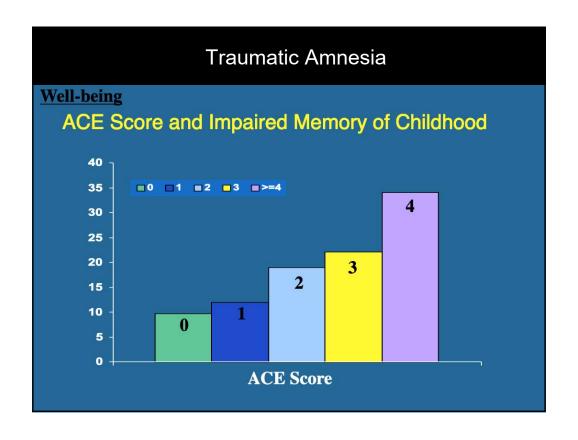
- ACEs are the primary cause of health risk behaviors, mental illness, social malfunction, disease, disability, death, and healthcare costs
- ► All the above public health issues are not separate problems, but rather different attempted solutions to one underlying problem ACE
- ► Having lost the ability to put words to their emotional experiences as children, physical, mental, behavioral, and social symptoms are a symbolic way of communicating emotional pain even decades later
- ▶ What happened back then can land you with obesity, a chronic health condition, addiction, on meds, in the hospital, a psych ward, in recovery, rehab, court (as an offender or a victim), detention, prison, divorced, an unwanted pregnancy, a STI, unemployment, disability, a shelter, on the streets, or in a coffin − 50 years later

# ACE Mechanisms How ACEs are Expressed as Illness Decades Later

(1) find solace in maladaptive coping strategies to keep the door closed on the past: smoking, excessive alcohol, opioids/drugs, sex, thrills, eating, work, overachievement, sedentary, internet, isolation, etc...short term relief to numb pain of profound hurt despite long term hazards...disease

Normal creative adjustments to an abnormal environment. Unconsciously selected, attempted solutions, not problems, to cope with unbearable feelings\* from long-concealed ACE the rest of us know nothing about \*shame, guilt, terror, anxiety, rage, depression

- (2) biological impact of chronic stress: gut bugs, NTs, hormones, mood, functions, low capillary perfusion, immune dysregulation/hyper-responsiveness, chronic inflammation (final common pathway for disease)
- (3) epigenetic changes: genome / environment, nature / nurture. DNA methylation, fxn of a gene on or off, telomeres...disease. Hereditary



# Trauma – The Real Terrorist In America

Global (COVID-19), National (9/11), Social (gender, race, poverty, LGBTQ), Regional (earthquake), Community (mass shooting), Family (loss), Individual (tragedy)



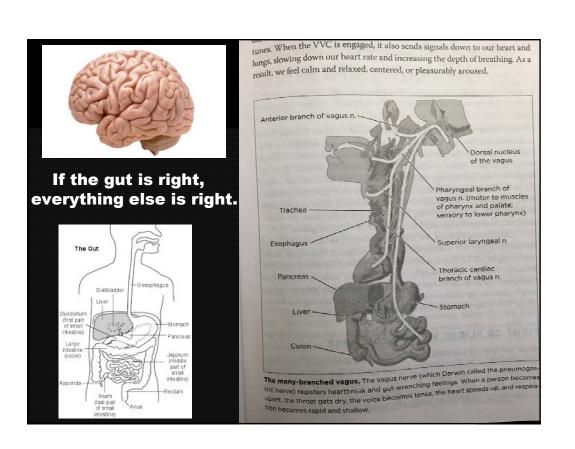
- Charcot, Janet, Freud (hysteria): suffering from trauma "memories," Defense Mechanisms, Resist/Persists, Repress/Expressed, Repetition Compulsion (reenact, play it out), Conversion Disorder (blindness), particularly childhood sexual abuse Oedipus Complex
- ► Biomedical model makes no connection between diseases and our relational & emotional lives, which is the foundation of being human Does the biomedical model assess, identify, and treat the root of our pain? If emotional wounds are overlooked, medicine fails

# Resistance To ACE

It is easier to build strong children than to repair broken men. Frederick Douglass

An Ounce of prevention is worth a pound of cure. Benjamin Franklin

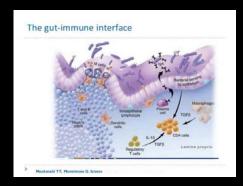
- ► ACE demonstrated biopsychosocial and trauma-oriented approaches to medical care are acceptable to patients, effective, and feasible. Yet only theoretical interest and the absence of any real world change predominate
- ► In spite of all the benefits, treating the solution may be too threatening, causing resistance on many fronts
- The best approach at this time may be primary prevention by improving parenting skills across U.S.



# The Largest Immune Organ: The Gut

If the gut is right, everything else is right

Disease: Inflammation (I).
(I): Immune System (IS).
(IS): Microbes.
Microbes: Gut.



- ► Birth canal (2:3), Skinto-skin, Breast Feeding (4:5, 50% @3 mo.)
- Sterile womb to infusion with friendly microbiota. Placenta oral type?
- Gut microbes program our immune system
- ▶ 70% of immune system is in the gut





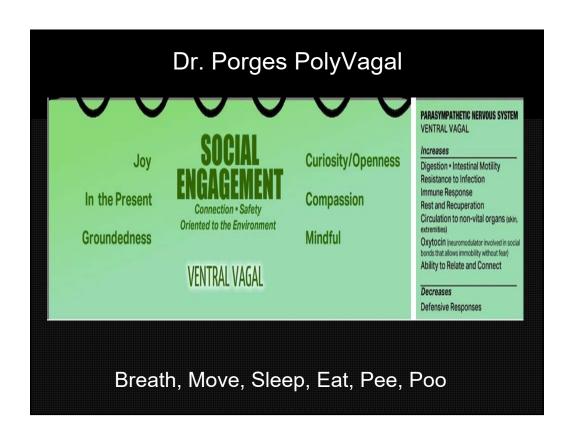






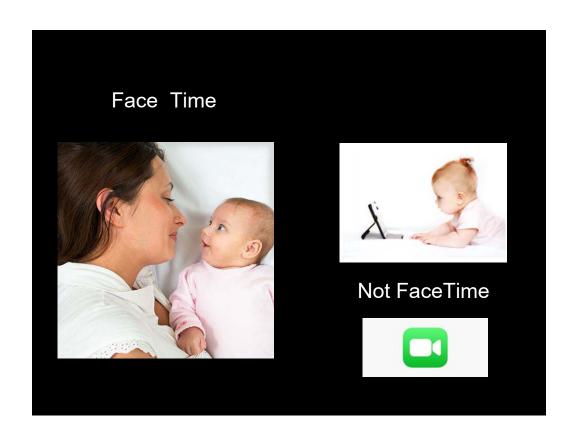












# Hippocrates, Father of Medicine, Hippocratic Oath Greece @460BC



- Believed the human body had an innate capacity for self-healing
- A Natural healing force within cures diseases
- The doctor can only help Nature
- Better to know what sort of person has a disease, than what sort of disease a person has



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### **Disconnection Hurts**







Connection Heals: Empathy, Compassion, Body Language, Eye Contact, Smile











#### Adverse Childhood Experiences (ACEs) Questionnaire

http://www.cdc.gov/violenceprevention/acestudy/

#### Prior to your 18th birthday did you experience:

- 1. Emotional Abuse Did a parent or other adult in the household often or very 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?
- 2. Physical Abuse Did a parent or other adult in the household often or very often... Push, grab, slap, or throw something at you? or Ever hit you so hard that you had marks or were injured?
- 3. Sexual Abuse 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 Attempt or actually have oral, anal, or vaginal intercourse with you?
- **4. Emotional Neglect** Did you often or very 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?
- 5. Physical Neglect Did you often or very often feel that ... You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? or Did it seem as though your parents or guardians didn't take care of you, ie. take you to the doctor if you needed it etc.?

- **6. Loss of Parent** Was a biological parent ever lost to you through divorce, abandonment, or other reason?
- 7. Domestic Violence Was your parent or guardian: Often or very often pushed, grabbed, slapped, or had something thrown at them? or Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? or Repeatedly hit for at least a few minutes or threatened with a gun / knife?
- **8. Family Member with Addiction** Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?
- 9. Family Member with Depression or Mental Illness Was a household member depressed or mentally ill, or did they attempt suicide?
- 10. Family Member Incarcerated Did a household member go to prison?

# Too Polite To Ask? No One Asks. Ask! People Are Dying To Tell You. Relieved. Gratified.

The power of 2 min: Asking, Listening, and implicit Accepting...

- ► The professional relationship w/your patients/clients (trust) is what activates their innate healing response
- ► Us asking them questions to help them discover what they know on some deep level already and to bring it up to where it's useful
- Asking people about their lives doesn't harm. I see on the questionnaire...How old were you when you first began \_\_\_\_\_? Why do you think it was then? How has that affected you later in your life?
- ► We learn all these deeply shameful things about them, yet we're still accepting of them. Supportive adult: Mister Rogers. Similar to priest: confessional.
- ► The reason many of us entered into our profession, was to help people; Surrogate parenting; Attachment

### An Ounce Of Compassion Is Worth A Pound Of Cure

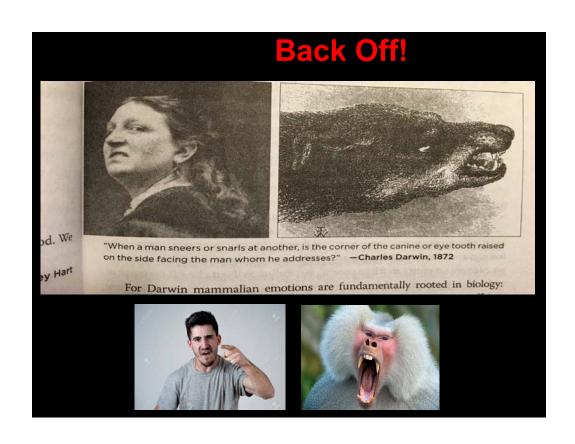
The power of 2 minutes: Asking..., Listening..., implicit Accepting...
A profound form of doing

@125,000 patients, the addition of 10 trauma-oriented questions to routine intake forms ahead of time, then later picked up, was associated with a \_\_\_\_\_ over the next year compared to the prior year for that same group

- ► 35% reduction of Doctor Office Visits vs. 11% control group
- ► 11% reduction of ER Visits
- ► 3% reduction of Hospitalizations

expanded to 450,000 patients (2016)









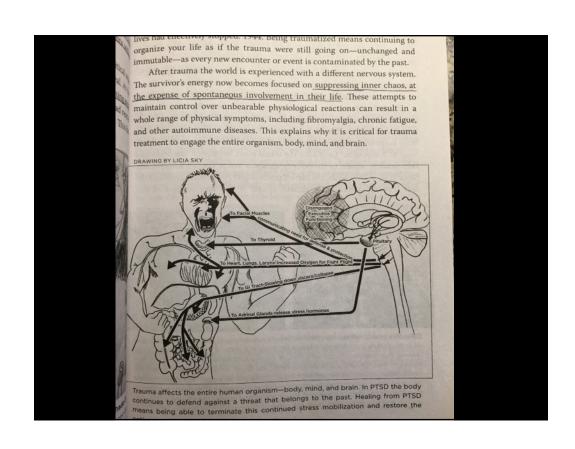


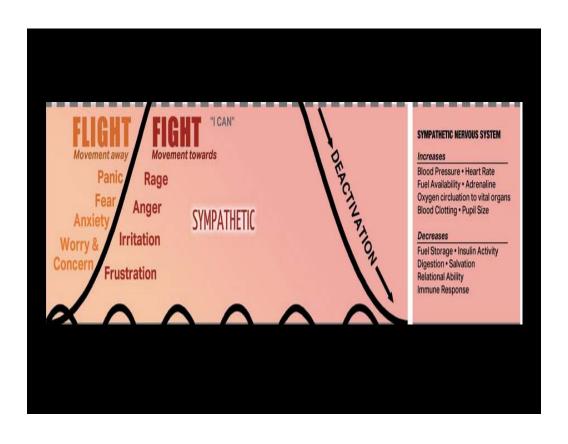


# Acute Stress Response "Fight or Flight or Freeze" "Tend and Befriend"

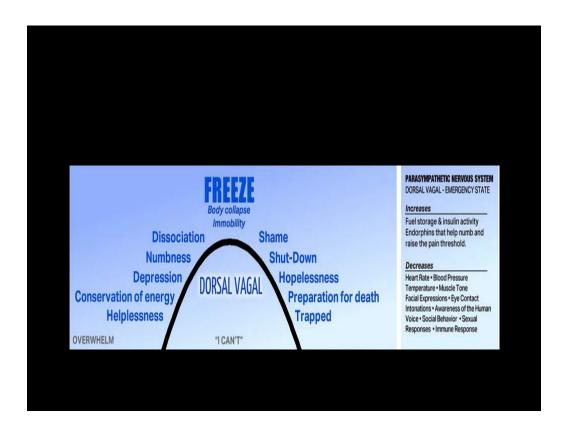
- Increased cardiac output HR faster and stronger
- BP rises with peripheral vascular constriction yet coronary and cerebral arteries dilate → more to heart/brain
- Blood away from periphery directed to muscles and organs
- Blood away from digestion
- Dry mouth. Salivary glands → less saliva
- Blood clotting factors rise
- Respiratory functions increase
- ► More blood glucose and less insulin\*
- Energy storage decreases. Less fat\*

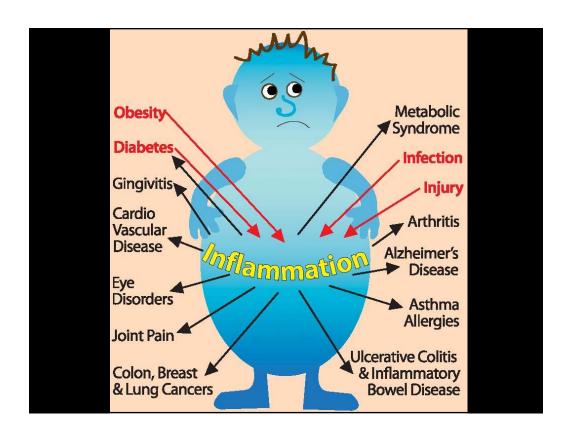
- Bloating/Edema. Na+ and H2O retention
- Bowel and bladder control is decreased
- Decreased sexual function
- Pupils dilate
- Pain threshold rises
- Bone formation decreases
- Immune response (pathogenic) increases\*
- Alertness and attention increase\*
- Long-term memory increases\*











# **Chronic Stress Kills**

Chronic stress underlies the biggest killers of Americans → the Top 10 causes of death, killing 3 out of 4 Americans annually

\*Heart Disease

\*Cancer

Unintentional Injuries

Chronic Lower Respiratory Disease

Stroke & Cerebrovascular Diseases

Alzheimer's Disease

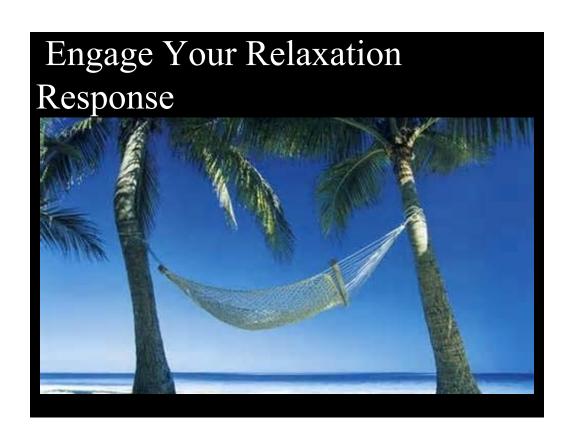
**Diabetes** 

Influenza/Pneumonia

Kidney Disease

Suicide





### **Mind-Body Strategies**

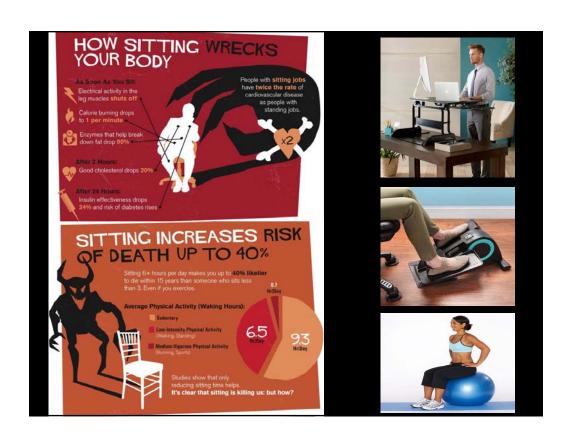
- ► Rhythms, Routine, Relaxation: deep breathing, progressive muscular, yoga, martial arts, mindful-ness, meditation, visualization, Mantra, chant, tap-ping, music, sing, dance, theater, draw/color, play, humor
- Combat (-) thoughts with (+) thoughts: Studies show over time, mind-body techniques change the brain
- (1) decrease activity and size of the amygdala
- (2) increase functioning and size of the frontal lobes

  Regular use of "Stop, Breath, & Think" by 10,000

  people over 3 months improved anxiety by 46%







## The Mediterranean Lifestyle



Naturally high in plants, which contain protective phytochemicals: anti-inflammatory, antioxidants, lower cholesterol; high in fiber, which feeds micro-biome, local microbes, healthy fats, healthy carbs, lean proteins

Naturally low in: calories, trans fats, salt, cholesterol, red meat, processed meat/foods, added sugar, refined sugar /foods, packaged foods, artificial Ingredients, unhealthy carbs



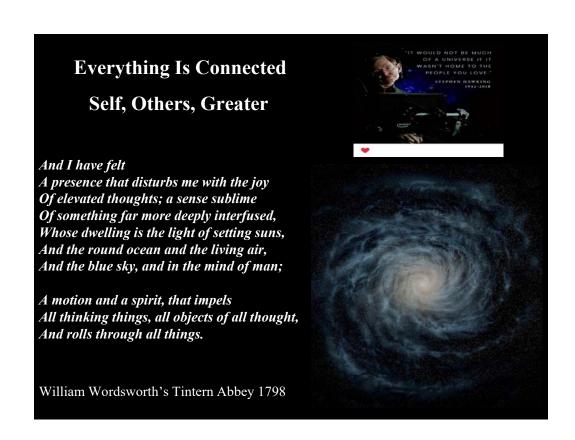
Eat the rainbow

# Healthy Sleep Habits / Dream Work

- 7-9 hours of sleep a night is associated with the best survival.
   Sleeping < 6 hours may be associated with increased mortality, including car crashes</li>
- ► "Sleep hygiene:" schedule, use bed only to sleep in, read a binded book (not on a device), restrict artificial light 1-2h before bed (blue light decreases melatonin)
- ► Routine exercise, but avoid vigorous activity 1-2h before bedtime
- Sleep medications (OTC and Rx) actually disrupt sleep architecture and on BEER's List
- Freud: Dreams were the Royal Road to the Unconscious

# **Psychotherapy BIG RED BUTTONS**

- Vast amount of behavior is driven by the unconscious (ACE: iceberg sank the Titanic)
- Childhood wounds create emotional sensitivities, triggers, or big red buttons. Fragments. Parts/Inner Child work
- Buttons cause emotional upset & over-reactions/behaviors
- Goal is to become aware of buttons, diffuse, integrate
- Body Based Therapy (straddle past/present in presence of safe prof not overwhelmed) vs. Talk/Insight Therapy
- Dream Work (Royal Road to the UnC); Expressive Therapies
- Permanent / General / No Control vs. Temporary/ Specific / Control



## **Quantum CBT - Law of Attraction**

- Works in both directions
- Negative thinking in reverse
- ► Both believe in the unmanifested outcomes
- Activates faith instead of fear
- Takes same amount of energy / effort
- Expect good things, Faith
- Visualize endpoint, Affirmations, Prayer, Vision Board
- ► Seed Soil Treat Growth (boomerang)
- Water: Rock Sinks, Ship Floats
- Dirty glass water add one drop pure water, repeat
- Military DNA

# Stressors Interpreted Through World View

- ► A spiritual foundation contributes positively to psychological and physical health
- ► Perceive stressor life is good, "faith," prayer restores balance

VS.

evil, meaninglessness, hopelessness,

helplessness –

increases stress

# **Stressors Interpreted Through World View**

World View: I am (am not)...

Others are (are not)...

World / Life / God is (is not)...

- Stress Negative World View Increased Anxiety and
   Maladaptive Coping Strategies
- ➤ Stress Positive World View Decreased Anxiety and
  Increased Adaptive Coping Strategies

### **Meaning for the Suffering**

- ► Trauma results in a loss of purpose. Paralysis
- What do you love that is bigger than your wound?
- Victor Frankle's Man's Search For Meaning
- Gratitude
- ► Altruism
- Anger, hostility
- Apology more valued than large sum of money
- ► The ultimate choice for a man, inasmuch as he is driven to transcend himself, is to create or to destroy, to love or to hate. Erich Fromm

### Now It's Time To Say Goodbye...

## Take Good Care of Yourself!

## Dr. Angelo Pezzote

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Linked In

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IBP programs are designed to be based on the best available evidence from current scientific research. However, the interpretation of evidence-based research may vary among researchers. The views and opinions expressed in this program are those of the presenter and do not necessarily reflect the views and opinions of IBP.

#### Self-test

1.	The study which revealed a powerful relationship between our emotional experiences as children and our physical and mental health as adults is called a. KAISER b. CDC c. ACE d. OBESITY
2.	The higher the ACE Score, the the negative outcomes a. Less likely b. Equal (no difference) c. Exponentially increased likelihood of d. Slightly more likely
3.	ACEs are the primary cause of a. Physical Disease b. Mental Health Issues c. Social Ills d. All of the above
4.	Given an ACE Score of 6, IV drug use is more likely a. 4,600% b. 46% c. 460% d. 4.6%
5.	A key nerve that impacts mind and body is a. Sciatic b. Ulnar c. Trigeminal d. Vagus
6.	Emotional self-regulation, co-regulated by our, influences our coping mechanisms lifelong  a. Siblings in same household  b. Caregivers in early life  c. Distant extended family  d. Childhood friends
7.	Chronic Stress  a. Has a negative impact on the body, mind and soul  b. Is necessary for inflammation and healing  c. Isn't a problem because it's short term  d. Isn't linked to the Top 10 causes of death

- 8. The mechanism(s) of ACEs is/are
  - a. Epigenetics
  - b. Coping Strategies like smoking, drinking, drugging, eating, sexing, high-risk behavior, and so on
  - c. Physiological changes leading to inflammation and poor blood flow
  - d. All of the above
- 9. Among all oppressed groups, which group has the highest rates of unemployment, alcoholism, *and* suicide?
  - a. American Indians
  - b. LGBTQ
  - c. Blacks
  - d. Latinos
- 10. The best way to help ACE survivors recover is
  - a. Talk/Insight therapy
  - b. Body Based Approaches and Expressive Therapies
  - c. Prolonged Exposure Therapy
  - d. Medications