



Session: Neuroscience of Stress for Parents Trainer: Anne Contreras, Director of Programs

Getting Started:

- 1. If you have any questions, please type them into the Q&A box.
- 2. Keep paper/pen near you to jot down your thoughts.
- 3. At the end of this session, when you leave the meeting, there will be a link that will pop-up asking you **to complete the Session Feedback Form**.
- 4. You will receive a follow-up email within 24 hours of this session. That email will serve as your confirmation of attendance record for this session.





Introductions



Respond to the poll to tell us a little about yourself.



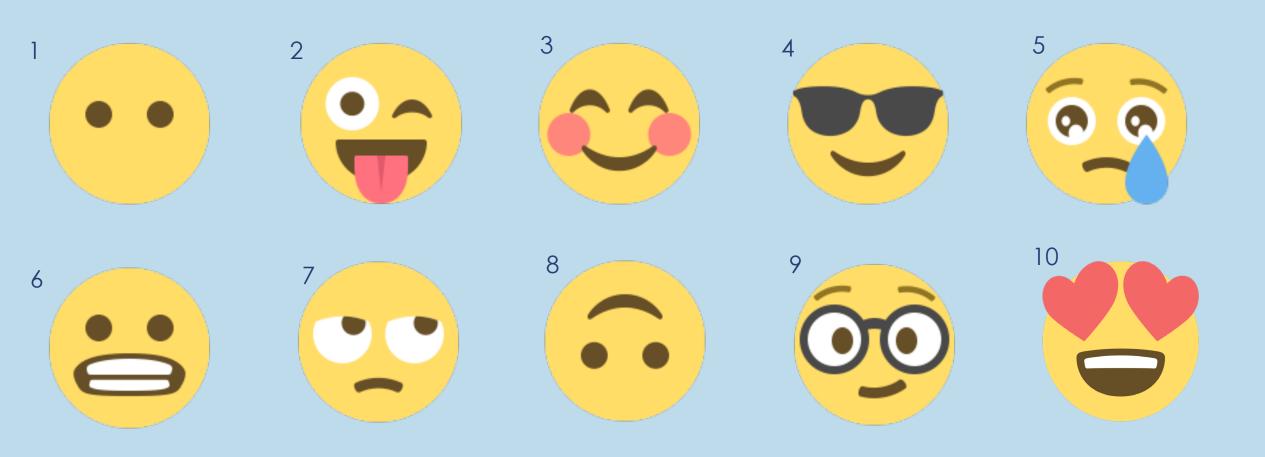
This Photo by Unknown Author is licensed under <u>CC BY-SA-NC</u>

WelcomingActivity



On the next slide, share which of the following images most accurately reflects your feelings right now.









Engaging Activity: Mindful Minute



- Start in Seated Mountain.
- Bring your attention to the present moment. We are going to start by taking a Mindful Minute.
- Start bringing your attention to the breath, noticing its qualities (fast, slow, warm, cool, shallow, deep...).
- Continue to focus your attention on the breath and notice how you are feeling. Just notice.



Who We Are

Pure Edge, Inc. (PEI) is a private operating foundation that provides direct service to organizations through professional development & strategy thought partnership.

PEI also provides grants to national organizations that advance the work of whole child development & SEL.





Introductions

Anne Contreras

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Learning Objectives

- Recognize the physiological response to stress.
- Experience **self-care practices** throughout the session.
- Explore the interconnectedness of stress and one's own self-care.





What is stress?

A physiological reaction that prepares an individual to respond to a stressor.

What is a stressor?

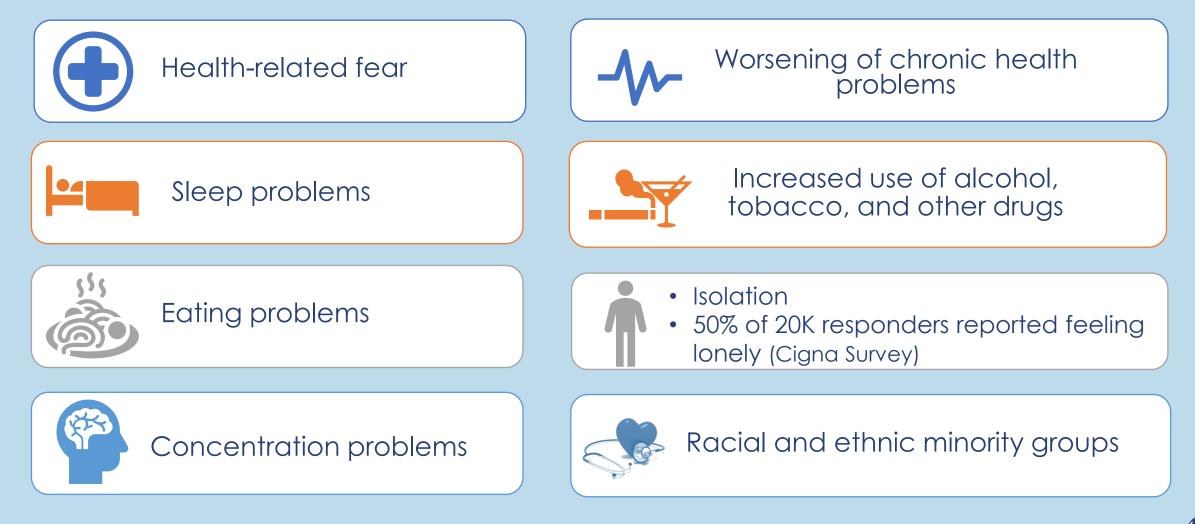
The stressor is usually something that threatens the well-being or homeostasis (stable equilibrium) of the individual.



Photo sources: www.discoveravalon.life/best-skiing-western-north-carolina/, www.visittucson.org/things-to-do/adventure-sports/rock-climbing, People Images/iStock

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STRESSOR: Pandemic (CDC)





https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html <u>This Photo</u> by Unknown Author is licensed under <u>CC BY-NC</u>

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For many parents, **it can feel overwhelming** to face competing demands at home and work along with possible financial challenges during this crisis.

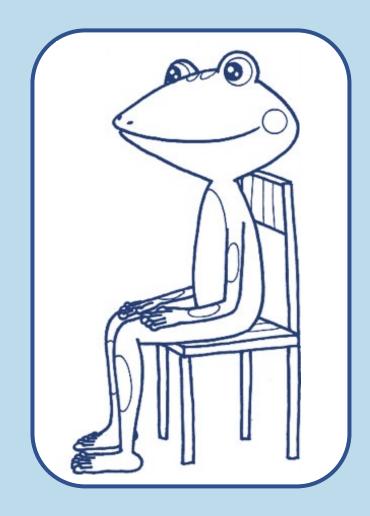
> ~Dr. Arthur C. Evans Jr., CEO American Psychological Association



Evans Jr., Arthur C. (2020). APA Stress in America Report™: High Stress Related to Coronavirus is the New Normal for Many Parents. American Psychological Association Online.



Engaging Activity: Even In - Even Out







Benefits of Nasal Breathing



- Filters dust and impurities from the air
- Warms the air to body temperature
- The diaphragm is more easily controlled, which supports the development of internal core strength
- More control over lengthening the breath (extended exhalations help activate the parasympathetic nervous system)
- Increased oxygen from nasal breath increases energy and vitality



Northwestern University. "Rhythm of breathing affects memory, fear: Breathing is not just for oxygen; it's also linked to brain function, behavior." ScienceDaily. ScienceDaily, 7 December 2016. www.sciencedaily.com/releases/2016/12/161207093034.htm

Benefits

Detriments

- Positive challenge
- Motivates us to take action
- Promotes well-being
- Enhances performance

- No relief in sight
- Makes us physically sick
- Weakens immune system
- Impairs performance



Stress Accumulates >>>> Allostatic Load

Allostatic load is "the wear and tear on the body," which accumulates as an individual is exposed to repeated or chronic stress.





McEwen, BS; Stellar, E (Sep 27, 1993). "Stress and the individual. Mechanisms leading to disease". Archives of Internal Medicine. 153 (18): 2093–101.

Impact of Stress & Trauma on the Heart

After his death, Dr. Martin Luther King Jr.'s autopsy found that while he was just 39 years old, he had the heart of a 60-year-old.

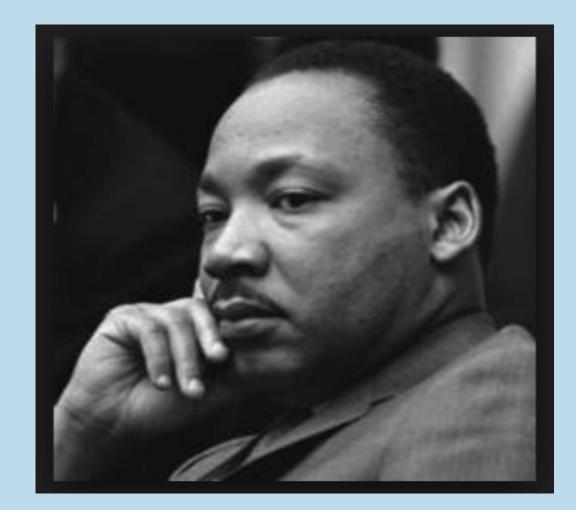
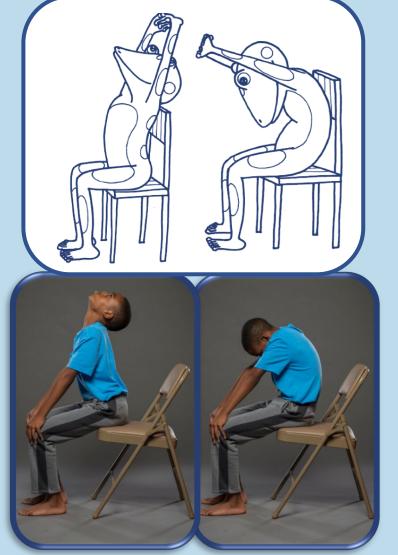




Image Source: https://www.nobelprize.org/prizes/peace/1964/king/biographical/

Engaging Activity: Chair Cat/Cow



- . Sit in Seated Mountain with hands on knees.
- 2. As you inhale, stretch your arms overhead and interlace fingers. Reach the center of your chest up toward the ceiling, and lift your chin so that you are looking at the ceiling. (Cow)
- 3. As you exhale, in one movement bring your hands forward, round your spine and drop your chin toward your chest. (Cat)
- 4. Repeat for several breaths: inhale, arms up, gaze lifts, chest up. Exhale round the spine, chin tucks, hands forward.
- 5. Return to Seated Mountain.

*You can have young learners moo like a cow and meow like a cat. Just make sure the do a few rounds moving with the inhale and exhale first.

*If on the floor, learners can come to hands and knees. Inhale, the belly drops down toward the floor and we look up toward the ceiling (Cow). Exhale, look at your belly button and round your spine (Cat). Repeat for several breaths.



Stress Is Contagious



Higher cortisol levels were found in students whose teachers reported high levels of stress and burnout.

Researcher Kimberly Schonert-Reichl (University of British Columbia) urges educators to be aware of their own mindsets and to practice mental wellness exercises to reduce their stress levels.



www.tricitynews.com/news/stress-is-contagious-education-leaders-told-1.24030014

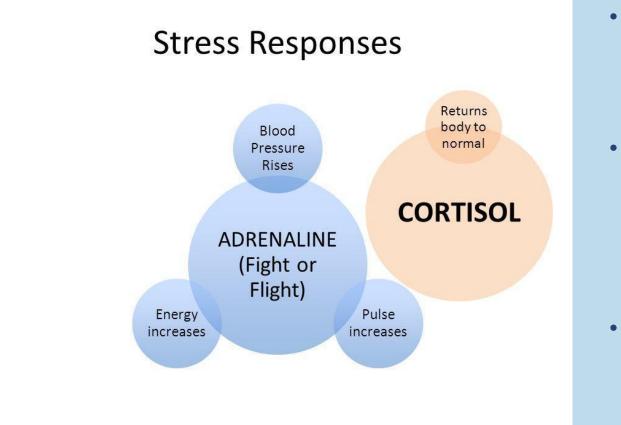
Children are keen observers and often notice and react to stress or anxiety of their parents, caregivers, peers and community.

~Dr. Arthur C. Evans Jr., CEO American Psychological Association



Evans Jr., Arthur C. (2020). APA Stress in America Report ™: High Stress Related to Coronavirus is the New Normal for Many Parents. American Psychological Association Online.

Stress Response



- **Cortisol** and **adrenaline** are released when our environments demand that we are alert and focused.1
- Which can result in being "stressed out" = when our nervous system becomes accustomed to constant flow of cortisol and adrenaline.
- Exercise and mindfulness practices/activities help flush excess cortisol from our systems.



Image Source: https://www.valinschiropractic.com/blog/124988-balancing-hormones-for-energy-and-sculpting-your-perfect-body

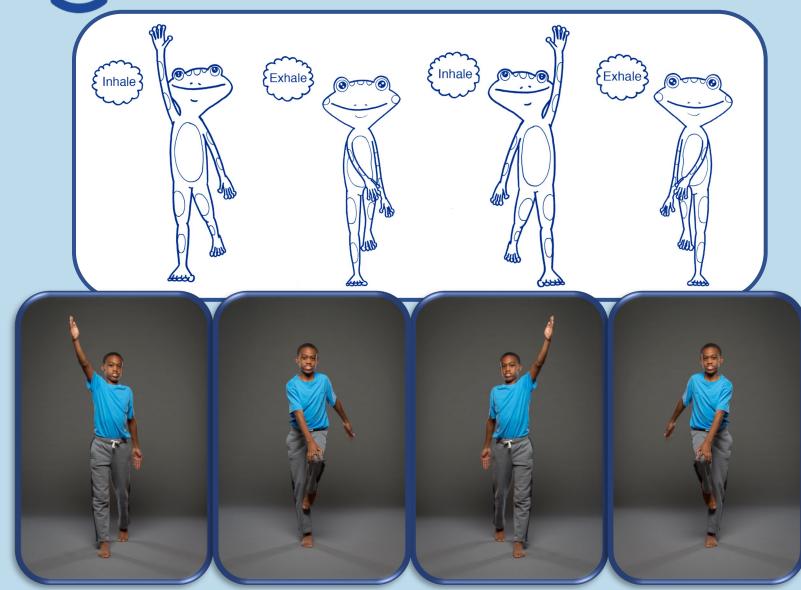
1: "Understanding the stress response," Harvard Health Publications, 2016. http://www.health.Harvard.edu/staying-healthy/understand-ing-the-stress-response

In order to have an impact on others, you must first have an impact on yourself.





Engaging Activity: Brain Balance Sequence



- Inhale, take the right arm overhead and the left foot slightly behind, placing only your toes on the floor.
- 2. Exhale, lift the left leg, knee bent, and touch the right hand to the inside of the left knee.
- 3. Inhale, return the right arm overhead and the left foot slightly behind placing only your toes on the floor.
- 4. Exhale and again lift the left leg, knee bent, and touch the right hand to the inside of the left knee.
- 5. Repeat on the other side.

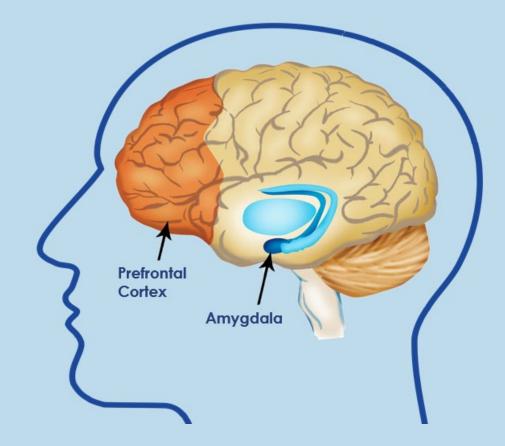


Neuroscience

Prefrontal Cortex: not fully developed until age 25 or so.

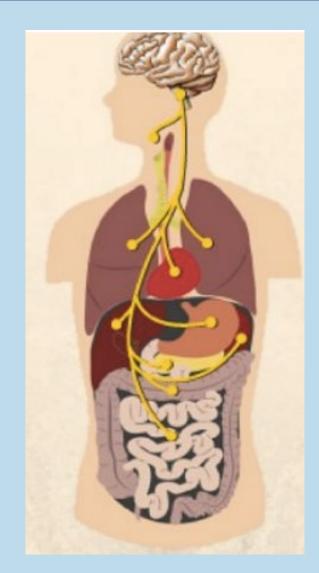
• This is the part of the brain that **responds to situations** with good judgment and an awareness of long-term consequences.

Children, teens, and young adults rely on the **amygdala to process information; the emotional part of the brain.**





Neuroscience: Vagal Tone



THE VAGUS NERVE

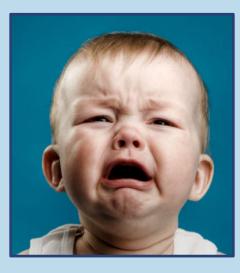
How to Hack Your Nervous System

The vagus nerve, the tenth cranial nerve, is the superhighway of the nervous system that connects the body and brain. We can tone the **vagus nerve** through deep breathing exercises.



http://depressivedisorder.blogspot.com/2015/09/7-ways-to-stimulate-your-vagus-nerve-to.html https://www.yogauonline.com/yogau-wellness-blog/vital-vagus-what-vagus-nerve-and-what-does-it-do

Response



"Gas Pedal" Sympathetic Nervous System: Fight or Flight



"Brake" Parasympathetic Nervous System: Rest and Digest



https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response

What we hope to do





Parents who cope with stress in healthy ways can not only promote better adjustment and happiness for themselves, but also promote the formation of critically important habits and skills for children.

~Dr. Arthur C. Evans Jr., CEO American Psychological Association



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Adult Modeling

Kids **absorb** the adults' mannerisms, especially their **EMOTIONAL REGULATION**

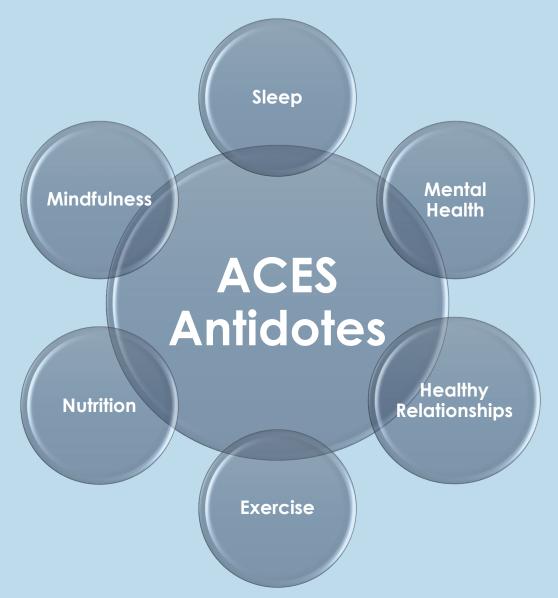
(the ability to manage their emotions).¹





Cadieux, Adelle, Pediatric psychologist at Helen DeVos Children's Hospital in Grand Rapids, Michigan. "Teaching children self-compassion by modeling it ourselves." Image Source: https://www.gograph.com/clipart/children-of-the-world.html

Six Critical Healing Factors



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Burke-Harris, N. B. H., MD. (2018). The Deepest Well: Healing the Long-Term Effects of Childhood Adversity (Reprint ed.). New York, NY: Houghton Mifflin Harcourt Publishing Company.

Engaging Activity: Guided Rest or Body Scan





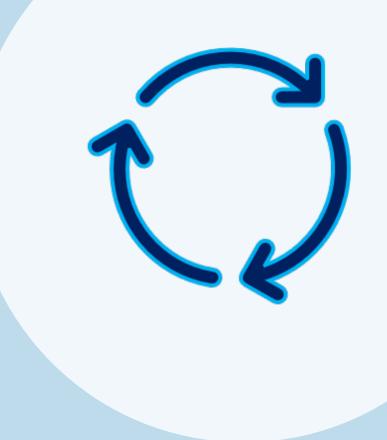
Brain Breaks Implementation Tips

- 1. Establish A Consistent Routine
- 2. Start of Day/End of Day/Transitions
- 3. Start **Small**, Then Build
- 4. Repeat, Repeat, Repeat
- 5. Be Comfortable With the Exercises





- Stress/Stressors
- Nasal Breathing
- Allostatic Load
- Neuroscience: Brain, Vagus Nerve & Sympathetic vs. Parasympathetic.
- Taking in the Good





Brain Breaks Review



- Mindful Minute
- Even In Even Out



- Chair Cat/Cow
- Brain Balance Sequence



• Guided Rest or Body Scan



Optimistic Closure: One word - how are you feeling?





Image: Rick Hanson and Rick Mendius, "Positive Emotions and Taking In the Good," 2007. http://www.wisebrain.org/PositiveEmotions,pdf

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Thank you for joining us! Session: Neuroscience of Stress for Parents Trainer: Anne Contreras, Director of Programs

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