

NCHC Live Heart Smart
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The Heart is the Seat of the Body

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Stress Refresher

Recognition & Reduction



“Stress” - Defined



- Term **“stress”** borrowed from physics by Hans Selye (1920’s)
- The “stress response” results in acute and chronic physiological changes called the “General Adaptation Syndrome”. Sustained stress response is associated with a variety of health concerns (including heart health).
- Historical research has shown that stressors are different for everyone, yet there are **common elements** that elevate stress responses in **everyone**.
- The recipe includes **N.U.T.S.**
 - **N**ovelty – a new or unfamiliar situation
 - **U**npredictability – little or no knowledge of what will occur, when or how
 - **T**hreat to the ego – one’s competence as a person is called into question
 - **S**ense of Control – feeling little or no control over a situation

Stressor ID activity. Lets have some fun!

- Make a tracing of your hand on the worksheet provided. Label each digit with the following:
 - **Pinkie** = Physical elements; nutrition, sleep, physical activity, environment, injuries/illness
 - **3rd** = Boredom or burnout (tired of whatever...too little stimulation or lack of interest, monotony, lack of gratification or motivation)
 - **2nd** = Frustration or Fear (lack of control, sense of danger)
 - **1st** = Overload (too much to do, too little time or resources, no help)
 - **Thumb** = Change of any kind, whether perceived as positive or negative
- **Identify examples** of stressors you experienced in these categories. Note and any of the NUTS. Novel or unpredictable situations, threat to ego, or low to noe sense of control

Prepare and Share (5 min.)


Stress Response Research

- Decades of research have set out to understand the effects of the “adaptation syndrome” and the connection with health and illness.
- Text books, courses, online resources abound to help cope, manage, reduce, avoid or diminish the stress response.
- Chronic, unrelenting stress is “hard on the system” and may diminish health.
- Sometimes stress is a “friend” depending on how situations are perceived. Check out [Kelly McGonigle Ph.D. "Making Stress Your Friend"](#)

Selye, H. (1982). History and present status of the stress concept. *Handbook of Stress*, 7-17.

Fink, G. (Ed.). (2016). *Stress: Concepts, Cognition, Emotion, and Behavior: Handbook of Stress Series* (Vol. 1). Academic Press.

McGonigal, K. (2016) Dealing with stress. <https://youtu.be/aohhfiS2ulo>



How can we reduce the stress response and also have a healthier heart?

Heart Science

Research on heart-brain connections

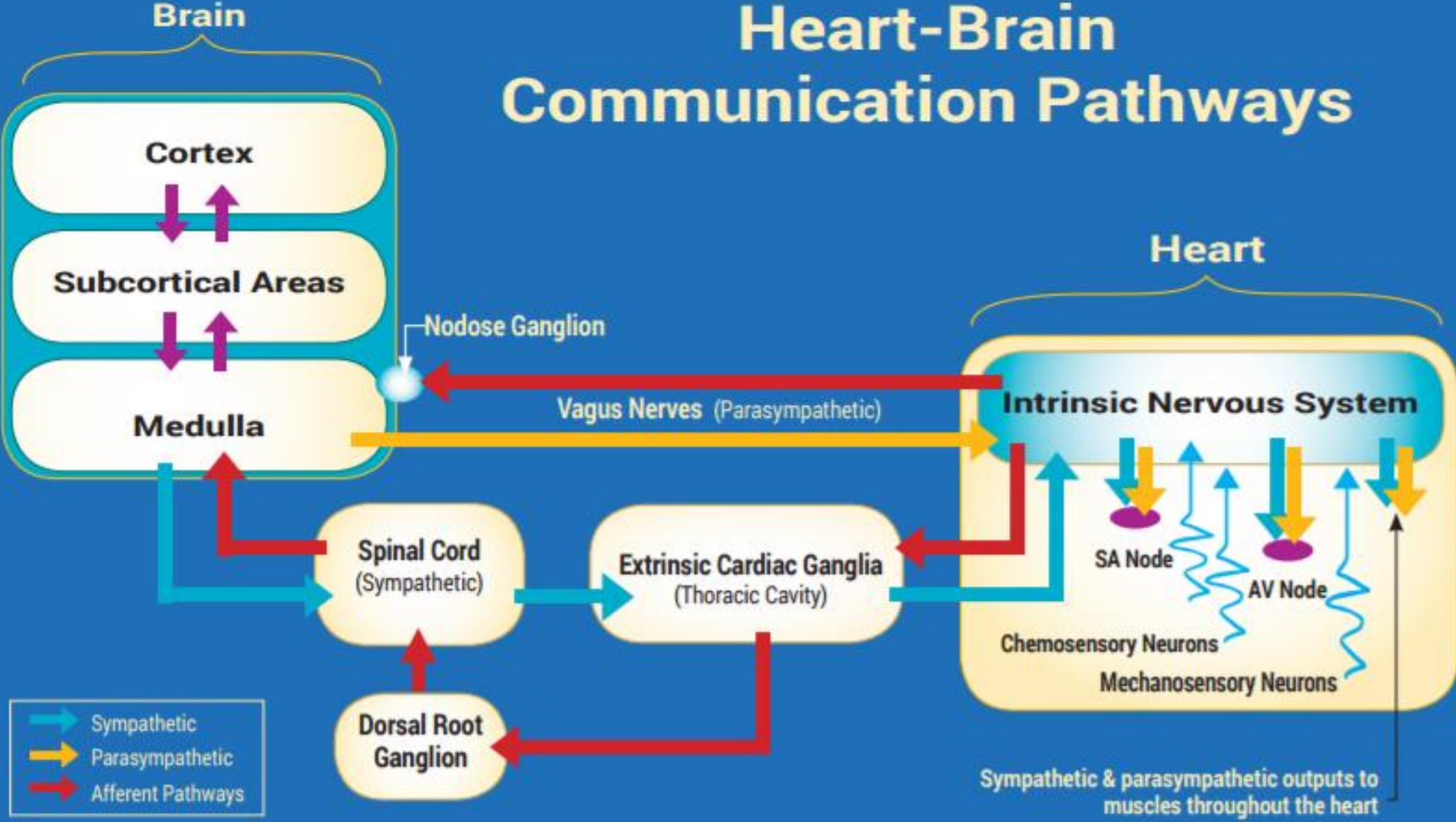
New thinking on the heart-brain communication

- Heart control has traditionally been thought to be **one-way** (from brain → heart) as in:
 - *Autonomic nervous system control all aspects of "fight or flight" (sympathetic) and/or "feed & breed (parasympathetic)*
- New research evidence suggests greater **complexity**:
 - *"Healthy, optimal function of the heart is a result of continuous, dynamic, bi-directional interactions among multiple neural, hormonal, and mechanical control systems at both local and central levels."*
 - **Resilience** occurs when there is of "cohesion" between heart and brain.

McCraty, R., Shaffer, F. (2015). Heart rate variability: new perspectives on physiological mechanisms, assessment of self-regulatory capacity, and health risk. *Global Advances in Health and Medicine*;4(1):46-61. DOI: 10.7453/gahmj.2014.073



Heart-Brain Communication Pathways





Current research is supporting mechanisms that promote **heart-brain coherence**.

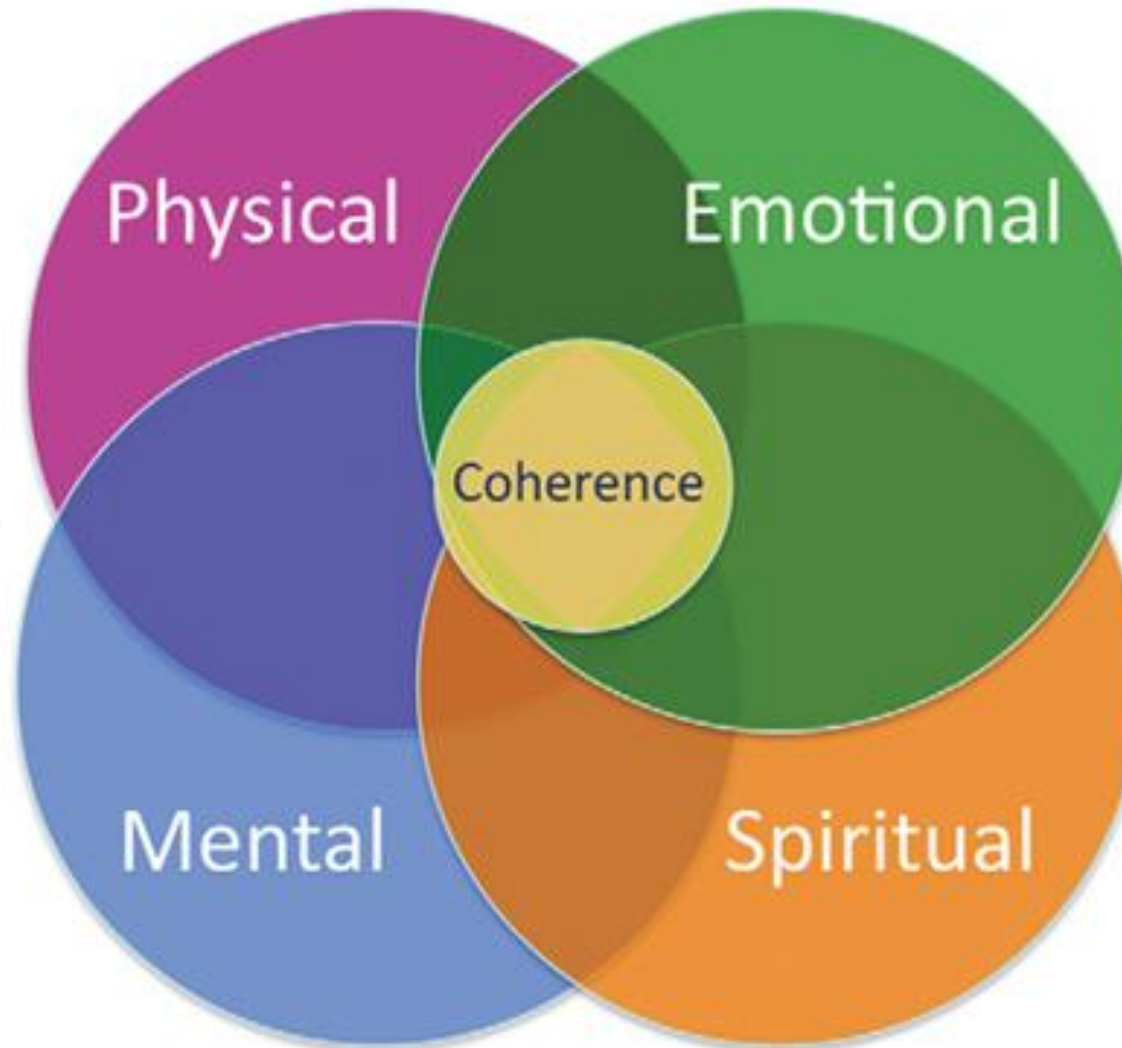
The heart is a powerful source of information, energy, and potential **resilience** in stressful situations.

- Communication between heart and brain happens **biochemically** and **energetically**.
- A balance between systems promotes health [sym-parasymp]
- **Balance builds emotional management for resilience:**
 - *the capacity to prepare for, recover from, and adapt in the face of stress, adversity, trauma or challenge.*

Domains of Resilience

- Physical flexibility
- Endurance
- Strength

- Mental flexibility
- Attention span
- Ability to focus
- Incorporate multiple points of view

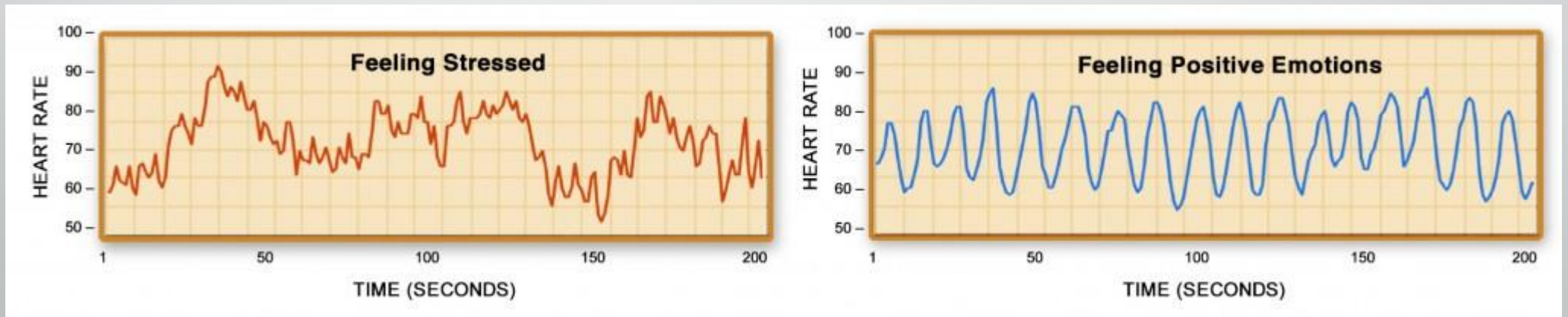



- Emotional flexibility
- Positive outlook
- Self-regulation

- Spiritual flexibility
- Commitment to values
- Tolerance of others' values and beliefs

Techniques for promoting heart – brain coherence & Reduce HR variability.

- **Heart Centered Breathing** – slow, intentional breaths, about 6-10 per minute. Focus on heart.
- **Freeze Frame**
 - Use clear thoughts of appreciation, gratitude, joy, compassion and love to re-frame a situation where emotions are being challenged.
 - Develop a “library” of thoughts to bring the heart into emotional control; visualize feelings of compassion or love. Store them in a “heart palace”.
 - Practice accessing positive emotions as needed.



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- Practice
**Heart Centered Breathing –
Freeze Frame**


 - Come back at the end of the conference for personal goal setting!

Debriefing the day: What can we do to promote heart health?

Objectives are single sentences that clearly indicate the **who, what, where, when and how** something will be accomplished. May also have the **WHY!**

S.M.A.R.T. (Objective example):

- Specific (adopt a behavior of regular walking)
- Measurable (daily)
- Attainable/action oriented (with my dog)
- Realistic/resourced (at a moderate pace)
- Time sensitive (by the end of this month)



**I will walk outside
every day
with my dog f
or 30 minutes at a
moderate pace
by the end of this
month.**