



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.!
  - Novelty – a new or unfamiliar situation
  - Unpredictability – little or no knowledge of what will occur, when or how
  - Threat to the ego – one’s competence as a person is called into question
  - Sense 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
  - **3<sup>rd</sup>** = Boredom or burnout (tired of whatever...too little stimulation or lack of interest, monotony, lack of gratification or motivation)
  - **2<sup>nd</sup>** = Frustration or Fear (lack of control, sense of danger)
  - **1<sup>st</sup>** = 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

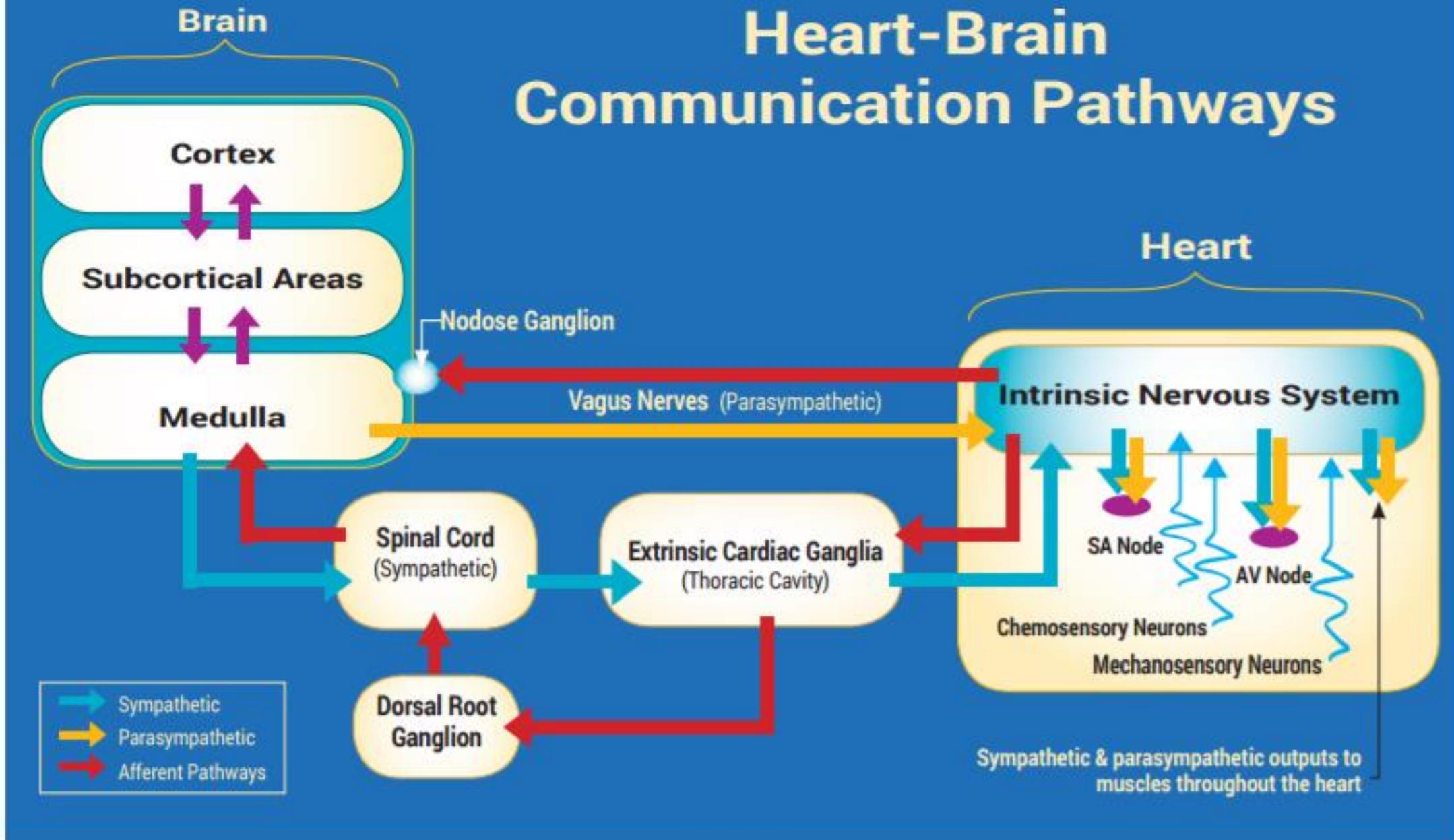
# New thinking on the heart-brain communication

- 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

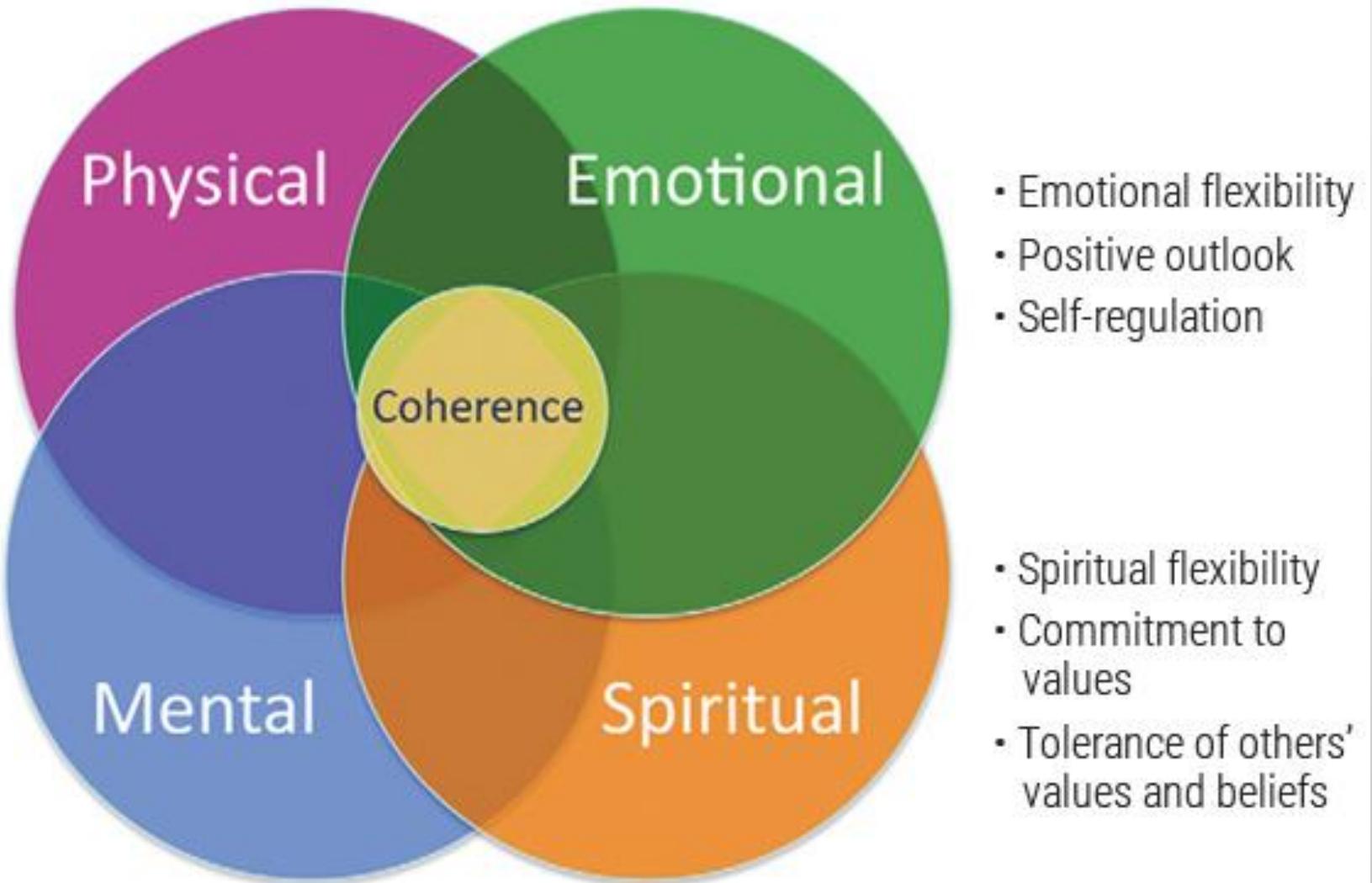


Current research is supporting mechanisms that promote **heart-brain coherence**.

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

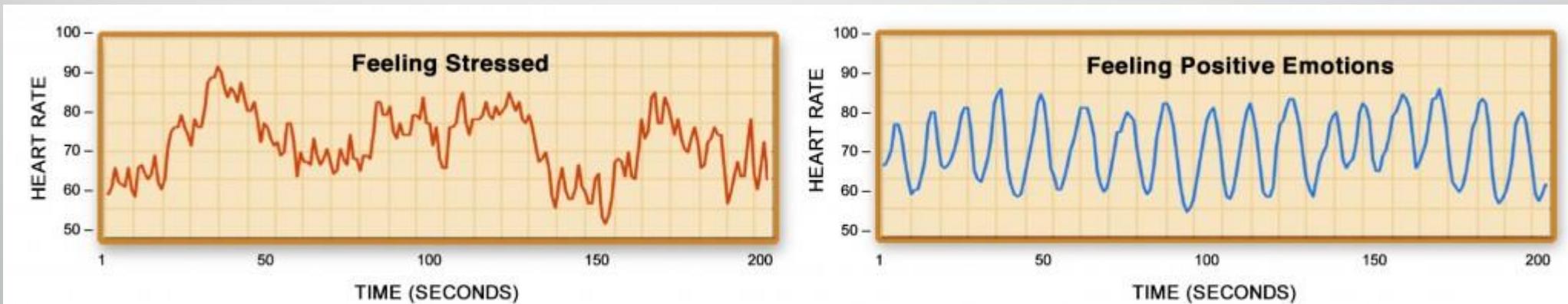
- Communication between heart and brain happens **biochemically** and **energetically**.
- A balance between systems promotes health [sym-parasym]
- Balance builds emotional management for resilience:
  - *the capacity to prepare for, recover from, and adapt in the face of stress, adversity, trauma or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

# Domains of Resilience



# 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.



- 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.