

# The Brain-Heart-Body Connection

- Meadows Behavioral Healthcare Brain Centers -

## Why the Brain Spa?

Allows you to pay special attention to the “tone” of your vagus nerve; vagal tone is the internal biological process that represents the activity of the vagus nerve.

Having a higher vagal tone means that the body can relax faster after stress.

## Major benefits of alpha include:

- Reduced heart rate
- Reduced blood pressure
- Greater digestion function
- Relaxed muscles
- Increased oxygen and blood flow to the brain!

Alpha allows for **CALM FOCUS!**



- Spending 20 minutes on each machine, three times per week during your outpatient experience, supports a positive feedback loop between high vagal tone, positive emotions, and good physical health.
- The more you increase your vagal tone, the more your physical and mental health will improve, and vice versa.

“We need to teach ourselves how our brains and bodies work; being in control of ourselves requires becoming familiar with our inner world and accurately identifying what scares, upsets, or delights us.”

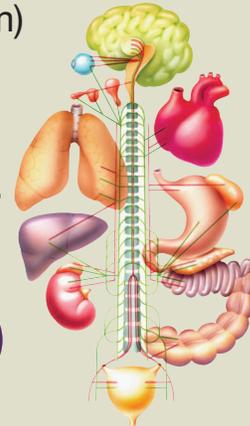
– Senior Fellow,  
Dr. Bessel van der Kolk  
*The Body Keeps the Score: Brain, Mind and Body in the Healing of Trauma*

## ANS (Autonomic Nervous System)

Our body’s ANS supports HEALTH, GROWTH, AND RESTORATION

- The vagus nerve is the main controller of the ANS and is the longest cranial nerve in the body
- The vagus nerve connects the brain to many important organs, including the gut (intestines, stomach), heart, and lungs
- Vagus nerve sends information from the body to the brain (about 80%) and also from the brain to the body (about 20%)

Your gut may be telling you something!



## An unbalanced ANS leads to:

- Insomnia
- Digestive problems
- Stomach pains
- Anxiety
- Constipation
- Palpitations
- Aches and pains
- Mental stress

## CES (Cranial Electrotherapy Stimulation)



- Brainwave entrainment is a method to stimulate the brain into entering a specific state
- CES stimulates alpha waves
- Alpha waves are the building blocks of resiliency and capacity

Research shows CES is useful for sleep, anxiety, depression, and improved cognition functions.

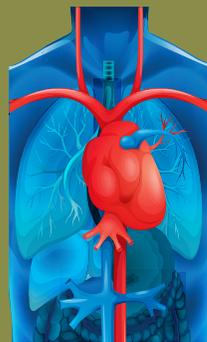
## Healthy Alternatives

Yoga, meditation, Tai Chi, and acupuncture increase alpha



Two external sources that increase alpha are **alcohol** and **marijuana**. SELF-MEDICATING THE BRAIN?

## HRC (Heart Rate Coherence)



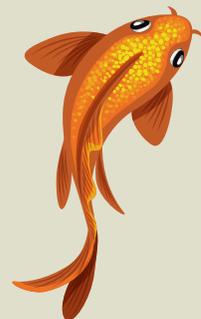
A biofeedback device that teaches mastery over physiology and supports a balanced nervous system

A way of improving our response to stress

A participatory learning tool that helps us gain **voluntary control** over breathing patterns, attention, focus, and energy, which are normally regulated without **conscious awareness**

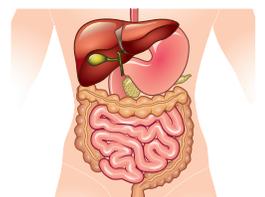
HRC is the clearest, cleanest window into the ANS; helpful in:

- Reducing stress
- Gaining clarity
- Developing self-awareness of internal reactions



## CHI MACHINE

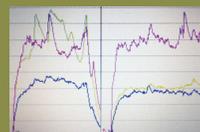
- Passive aerobic exercise
- Figure eight, goldfish movement provides maximum oxygenation benefits – most beneficial to the heart and lungs
- Supports both the sympathetic and para-sympathetic branches of the ANS (Autonomic Nervous System) – THE VAGUS NERVE
- Helps restore the vital balance the vagus nerve needs to function at its best!



Increases lymphatic flow and improves immune system.

## BRAIN HEART BODY CONNECTION = SELF-REGULATION AND RESTORATION

When the ANS is balanced, side effects of adverse childhood experiences start to lessen.



Brainwave activity pre- and post-Survivors Workshop, showing proof of MORE regulated, coherent, and organized brain.