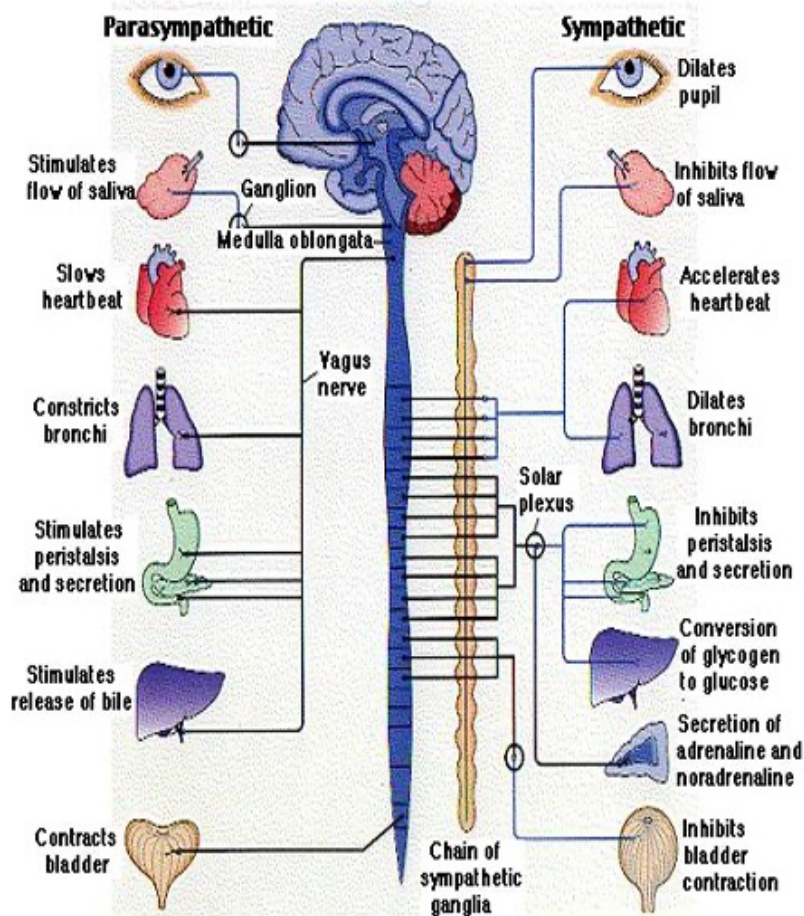


Vagal Tone Explained

What is Vagal Tone?

The Autonomic Nervous System (ANS) is part of the information highway of your body and is a subset of the Central Nervous system. The ANS controls all the bodily functions that operate without conscious control such as breathing, digesting, and heart beating and is connected to most of your organs.

The ANS has 2 branches, the Sympathetic or “Fight or Flight” branch and the Parasympathetic “Rest and Digest” branch. These branches work together in a sort of tug of war to keep you functioning optimally regardless of your activity.





The Vagus Nerve is a major part of the Parasympathetic branch and controls your ability to “put the brakes” on stress. Referring to the above image, the Vagus nerve is the 10th of 12 cranial nerves and wanders through your nervous system and organs, connecting to:

- **Heart:** Regulates heart rate and lowers blood pressure.
- **Lungs:** Controls breathing and airways.
- **Digestive System:** Controls stomach acid secretion, peristalsis (movement of food), and digestion.
- **Other Organs:** Connects to the gallbladder, liver, and kidneys, contributing to metabolic functions.
- **Head/Neck:** Controls muscles used for swallowing and producing vocal sounds.

Vagal Tone is the term describing a strong and resilient Vagus Nerve. Because a stress or Fight or Flight response causes Heart Rate and Blood pressure to rise, breathing to become shallow, digestion to shut down and inability to cry out, you can see why good Vagal Tone is important. It counteracts the actions of Fight or Flight and brings you back into equilibrium.

How Do I Improve My Vagal Tone?

There are several ways to maintain and improve your Vagal Tone:

- **Yoga:** Yoga often alternates between active movements and poses and periods of rest in between. This prompts the nervous system to be flexible and move between Sympathetic and Parasympathetic, keeping the ANS flexible.
- **1:2 Breathing:** Deep breathing can change Vagal Tone in the short term via something called Respiratory Sinus Arrhythmia (RSA). Inhale speeds the heart up, exhaling slows it down. By inhaling to a count of 4 and exhaling to a count of 8 (or any 1-2 inhale exhale ratio), the vagus nerve is exercised and regular practice with result in sustained and improved Vagal Tone.
- **Meditation:** Regular Meditation helps balance the ANS by reducing Stress while the regular and deep breathing often associated with Meditation exercises the Vagus Nerve via RSA described above.
- **Breathwork:** Breathwork has become popular as of late. It is usually done with a teacher or facilitator. The deep and paced breathing not only changes your physiology in the short term, it strengthens the ANS overall.



How Do I Measure My Vagal Tone?

Because HRV is a measure of your Nervous System, you can measure your Vagal Tone using any of the SweetWater Health apps and a supported heart rate monitor. One of the results you will get after you do a session is called, simply, HRV. HRV is a number between 0 and 100 and a higher score indicates higher Vagal Tone. Note HRV varies with age and gender. It also varies via a circadian rhythm or your emotions/physical fluctuations. That said, your range should be in a healthy window. Chronic low Vagal Tone may indicate disease. Below is a chart of average HRV for ages and gender.

rMSSD	Gender	HRV	Age
43	Female	68	10-29
31	Female	60	30-49
25	Female	56	50-69
22	Female	53	70-99
53	Male	72	10-29
34	Male	63	30-49
22	Male	53	50-69
22	Male	53	70-99