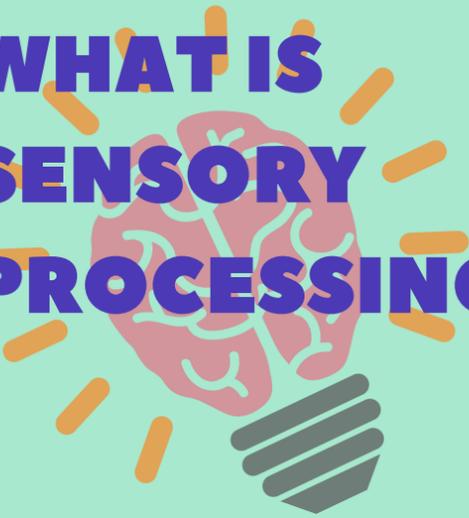


# SENSORY PROCESSING



## A GUIDE TO WHAT SENSORY PROCESSING IS, HOW IT'S MEASURED AND TREATED

### WHAT IS SENSORY PROCESSING?



Sensory processing is the body's ability to take in sensory information and in turn perform a planned reaction. Sensory information is detected in the environment and transported to the brain where the brain organizes the information and creates a motor output. Sensory processing differences are detected when a child's motor output is different than his/her peers. Occasionally, the sensory information coming into a body can be disorganized. When the sensory information isn't categorized properly by the brain, a "behavior" is exhibited. When these behaviors are alarming to the family, they may seek outside help.

Sensory processing looks different for everybody. There is no formula for how a body will perceive and process sensory information. We all have preferences that make us our unique selves.

### SOME OF THE WAYS THAT THERAPISTS AT EPT TREAT FOR SENSORY PROCESSING INVOLVE:

1. Primitive reflex integration
2. Vagus nerve re-education
3. Sensory diet

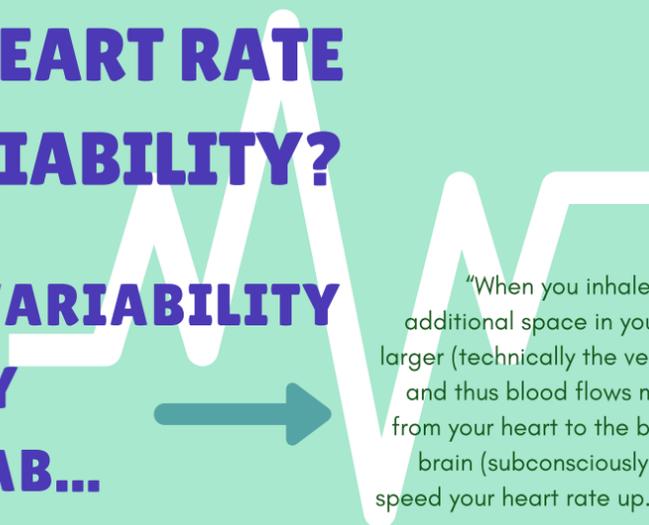


Our therapists are trained on how to measure the efficacy of our treatment methods by measuring heart rate variability tools. We have partnered with OptimalHRV to provide families with an economic and practical home tracking option. Each child is unique and our treatment and efficacy measures are catered to meet your kiddos own special needs.



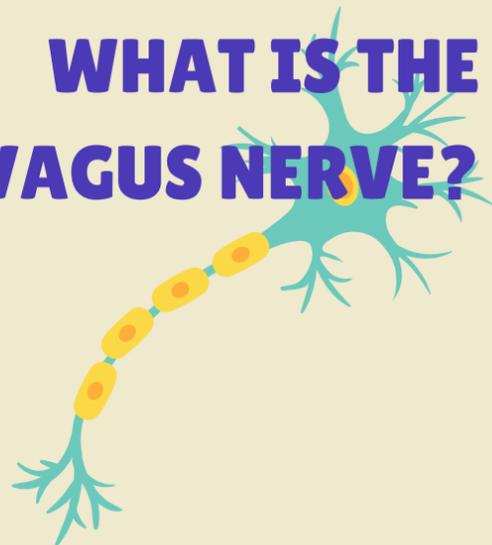
### WHAT IS HEART RATE VARIABILITY?

### HEART RATE VARIABILITY EXPLAINED BY HUBERMAN LAB...



"When you inhale, your diaphragm moves down. That creates additional space in your thoracic cavity. Your heart gets a little bit larger (technically the vena cava pressure shifts) in that larger space and thus blood flows more slowly through it. A neural signal is sent from your heart to the brain to say "blood flow is reduced" and your brain (subconsciously) sends a neural signal back to your heart to speed your heart rate up. Summary: Inhales= increase your heart rate & Exhales + decrease your heart rate."

### WHAT IS THE VAGUS NERVE?



The vagus nerve is the 10th cranial nerve and helps create parasympathetic control of the heart, lungs and digestive tract to reduce stress in the body. A vagal brake is the influence of the social engagement system on the heart. If the ventral pathways are active, it will keep the heartbeat at a calmer pace. Without the ventral pathways active, heart rate increases about 20 beats per minute and our bodies can react with the flight or fight nervous system response.

### WHAT IS PRIMITIVE REFLEX INTEGRATION?

The Primitive Tonic Reflexes appear in infancy and are integrated into normal movement patterns as the infant develops during the first 6-12 months of life. These reflexes are thought to help the infant learn to organize motor behavior. Integration refers to the inhibition by higher centers of neurological control which modify the reflex in such a way that the pattern of response is no longer stereotypical. The reflex does not disappear; it may reactivate under stress or during activities requiring great strength. If these so-called primitive reflexes are persistently displayed beyond the expected or typical developmental time period, their presence has been considered an indication that underlying developmental or neurological issues may exist. When these reflexes do not integrate, they may interfere with a child's development of more advanced motor skills. If such a delay or disruption in motor skills exists, there may be an impairment in the child's occupational performance.

THE INFORMATION WAS CREATED BY @TOOLS TO GROW, A PEDIATRIC THERAPY BLOG:

