

Nervous System Regulation

We all experience stress in our lives. When we experience a stressful situation, our nervous system reacts. The only way to stay calm in a stressful situation is to learn how to recognize its different states and how to better regulate your nervous system. See also the Window of Tolerance.

The part of your nervous system that is responsible for how your body reacts is the *Autonomic Nervous System*. It connects your brain to most of your internal organs. It creates a balancing act within your body and controls the automatic functions of your body that you need to survive.

There are two parts to your autonomic sympathetic nervous system the *Parasympathetic* and *Sympathetic*. The *parasympathetic* nervous system makes sure your everyday needs are met. When you eat it makes sure your body digests properly and regulates a slow healthy heart rate. It also includes the more primitive, reptilian part of your brain responsible for freezing and immobilization if in danger.

The *sympathetic* nervous system takes charge of your mind and body when your brain feels threatened. It is what turns on your heart to go faster, gets more blood pumping to your muscles so you can run away from the threat. Below is a list of things that they parasympathetic and sympathetic systems do.

Parasympathetic (Rest and digest) (Freeze & immobilize) (Social Engagement)	Sympathetic (Fight, flight)
Able to socially engage	
Constricts pupils	Dilates pupils
Slows heart rate	Increases heart rate
Constricts Airways	Relaxes airways, which lets you breathe more deeply
Stimulates digestion	Inhibits digestion (also let's everything go)
Reduces blood flow to muscles	Increased blood flow to muscles
Salivation (& tears, how your nose runs)	Inhibits salivation
Constricts bladder	Relaxes bladder
Increases reproductive system blood flow	Decreases reproductive system blood flow
Sweat	Increased sweating and goose bumps
Regulates insulin and hormones	Increase insulin and hormones (such as stress hormones)

6 Common reactions of the nervous system

All of these responses originated in helping you to survive.

1. Fight - fight the threat
2. Flight- running away from the threat
3. Freeze – not doing anything. Often happens when fight or flight doesn't work.
4. Flood – flooding of emotions in response to the threat
5. Fawn – submitting to the threat/person. You put other's needs ahead of your own to avoid conflict. Example, people pleasing.
6. Fatigue – tired/sleeping in response to the threat

Regulation and Dysregulation of the Nervous System

Regulating your nervous system activates the parasympathetic nervous system. You feel clear and in control. The best way to turn down your stress response is to practice regulating your nervous system before you feel stressed. By doing this it builds and strengthens neural connections that make it easier for you to access your inner calm when stressful situations happen. The more you practice the easier it will be to access even during an emotional storm.

Dysregulated Nervous system your emotions feel out of control. You react instead of responding. It is usually accompanied by physical symptoms such as headache and brain fog.

Flipping Your Lid. Remember when you become dysregulated and emotions take over, you're thinking part of your brain often goes offline leaving you to cope from your survival or emotional brain. The brain can be brought back online through coping skills. See the following information as well as "Coping and Mindfulness Skill Sheet" or "Regulation Tools and Strategies."

The Vagus Nerve (An important part of your autonomic nervous system)

- Carries signals to your brain, heart, lungs, digestive system.
- Longest cranial nerve in your body. Runs from the base of your brain, up into the ears and down through your neck, chest and to your large intestine.
- Plays a key role in your mental and physical health.
- Connected to motor functions in the voice box, diaphragm, stomach, heart and sensory functions in the ears and tongue. Connected to both motor and sensory functions in the sinuses and esophagus.
- Controls involuntary sensory and motor functions like – heart rate, speech, mood, urine output
- Helps your body switch back and forth between fight/flight response and parasympathetic mode (relaxed)
- Stress can decrease / interfere with your system switching back and forth from fight/flight to relaxed.
- Stimulating your vagus nerve – helps with depression, regulating emotions, reducing blood pressure, lower heart rate, reduce inflammation, treat migraines, cluster headaches.
- Affects your gut health, mood, appetite, internal organs, inflammation

Coping and Managing Skills

1st Step - Practicing the PAUSE

- The first step in self-regulation is AWARENESS
- Take a moment to pause and notice what is happening in your body. Be present in this moment, in the feelings, in the emotions.
- Become familiar with feelings in your body. Both stressed and calm feelings. Emotions arise in the body when the body is stressed. You will often feel clues in body sensations before you recognize you are emotionally stressed. Example; clenching jaw, tight muscles.
- Stress causes you to focus on the past or the future instead of being in the present. Focus on things you can control in the here and now.
- Once you have identified what is happening in your system choose the tools you have to down regulate or up regulate your system to bring you back into a safe and connected state.

How to regulate

- Slow and deepen your breath
 - When stressed your breath gets quick and shallow
 - 80% of the fibers of the vagus nerve (essential part of the parasympathetic nervous system) run from the body to the brain. By consciously slowing and deepening your breath, you're activating relaxation in your body which tells your brain that you are safe
- Cold exposure
 - Cold water activates the vagus nerve and help your body relax.
 - Take a cold shower, put a cold rag on your neck
- Mantra repetition (Can be used with Tapping)
 - Sound, word or phrase you repeat to yourself (I am safe, I am strong)
 - Helps your brain make a positive neural connection that reduces stress
- Awareness
 - Also called mindfulness, turning your attention to the present moment
 - Unless you are in immediate danger the stress you are experiencing is coming from your focus on the past or future. Therefore, by focusing on what is happening in the here and now it can help to reduce stress and regulate your nervous system
 - Pause and noticing what is happening (breathing, in your body, thoughts). Remember they are coming from the past or the future.
 - Use the

Vagus Nerve Support Strategies

- Singing (Vagus nerve is connected to your vocal cords and passes through your ear. Humming or signing stimulates your vagus nerve)
- Meditation (lowers breathing, heart rate, cortisol levels)
- Yoga or Tai Chi (lowers breathing, heart rate, cortisol levels)
- Massage & Reflexology. Massage your feet
- Cold water immersion. Ice pack on your face or neck, cold shower, or an ice bath. Helps the body relax.
- Gargling – gargle water for 30 seconds to one minute
- Laughing
- Gratitude journaling,
- Deep breathing
- Exposing yourself to beautiful things, sunset, nature, pictures, pets.
- Exercising
- Chew gum
- Cough or contract the stomach muscle
- Build social connections

Vagal Nerve Reset

- Look over your right shoulder
- Look over your left shoulder
- Using just your eyes look to the right. Keep looking until you sigh or yawn this can take up to 3 minutes
- Repeat looking to the left.

Other supportive documents all available on the website under client area

- *Stress and the Window of Tolerance*
- *Coping and Mindfulness Skill Sheet*
- *Regulation Tools and Strategies*
- *Coping Skills Worksheet*
- *Trigger and Coping Worksheet*
- *Self-Awareness Worksheet*