Unlocking the Healing Power of Your Vagus Nerve

Understanding the Central Nervous System

I tend to teach, guide and share about the central nervous system (CNS) from the lens of the PolyVagal Theory - which was created by Dr. Stephen Porges, a psychologist and behavioural neuroscientist who first introduced this theory in 1994 - because he links the evolution of the autonomic nervous system and social behaviour.

In the context of PolyVagal Theory, the central nervous system (CNS) plays a crucial role in regulating our physiological and emotional responses to the world. The CNS, composed of the brain and spinal cord, communicates with the autonomic nervous system (ANS), which governs automatic bodily functions like heart rate, digestion, and respiration. PolyVagal Theory, developed by Dr. Stephen Porges, focuses on the vagus nerve and its impact on the autonomic nervous system, providing a framework for understanding how we move between states of safety, danger, and immobilisation based on our nervous system's perception of the environment.

PolyVagal Theory divides the **autonomic nervous system** into three hierarchical states, which are influenced by the **vagus nerve**:

1. Ventral Vagal State (Safety and Social Engagement):

- This state is governed by the **ventral branch of the vagus nerve**, which is part of the parasympathetic nervous system. It is the most evolved response system and is associated with feelings of safety, connection, and social engagement.
- **When in this state**, we experience calmness, openness, joy, love, and the ability to connect with others. Our bodily functions are regulated optimally: heart rate is stable, digestion works well, and we are in a state of **emotional regulation**.
- The **ventral vagal state** supports **social bonding, communication, and creativity**, making it the state where we can thrive, heal, and experience **abundance and pleasure**.

2. Sympathetic State (Fight or Flight):

- The **sympathetic nervous system** activates in response to perceived danger. This is the body's **fight or flight** mechanism, designed to prepare us to respond to threats.
- **When in this state**, the body mobilises energy, increasing heart rate, respiration, and blood flow to muscles. Stress hormones like adrenaline and cortisol are released to help us either confront (fight) or flee (flight) from a threat.
- From the **PolyVagal perspective**, when we are in a **sympathetic state**, we cannot easily engage in social activities or self-regulate. Healing is inhibited because the body is focused on **survival**, not restoration or repair.

- While this state is necessary for short-term survival, being stuck in it can lead to chronic stress, anxiety, and burnout.

3. Dorsal Vagal State (Shutdown and Immobilization):

- The **dorsal branch of the vagus nerve**, part of the parasympathetic system, governs this state. This is an older, more primitive survival response designed for life-threatening situations where neither fight nor flight is possible.
- **When in this state**, the body shuts down, resulting in dissociation, numbness, or collapse. Physiologically, there's a drop in heart rate and blood pressure, and the body enters a state of conservation, sometimes freezing or immobilising.
- In extreme situations, this state can protect us from overwhelming trauma by numbing emotions or even inducing a state of **dissociation**. However, being stuck here long-term is associated with depression, withdrawal, and a sense of disconnection from the world.

The PolyVagal Theory, developed by Dr. Stephen Porges, provides a valuable framework for understanding the connections between our nervous system, emotions, and social behaviour. According to this theory, the autonomic nervous system, which governs our physiological responses to stress and safety, is composed of three interconnected branches: the ventral vagal complex, the sympathetic nervous system, and the dorsal vagal complex. The ventral vagal complex, as mentioned earlier, is associated with feelings of safety, social connection, and relaxation. It supports higher-order social behaviours and enables us to engage with the world in a calm and responsive manner. By healing and regulating the central nervous system, we can work towards restoring balance and resilience within the autonomic nervous system. This, in turn, allows for greater access to the ventral vagal state and its associated feelings of safety, connection, and abundance.

When the sympathetic nervous system remains chronically activated, such as in cases of ongoing stress or trauma, it can have detrimental effects on health and well-being. Prolonged activation of the sympathetic response can lead to a range of physical and psychological issues, including cardiovascular problems, digestive disorders, immune system dysfunction, anxiety, and depression. Importantly, chronic sympathetic arousal can also impair the body's ability to heal and repair itself. In a state of constant vigilance, resources are diverted away from maintenance and restoration processes towards immediate survival needs. This can hinder the body's ability to recover from injury, illness, or trauma.

Another concept to refer to is the Autonomic Nervous System Ladder which is a concept created by Deb Dana, another leader in the polyvagal theory and world of healing trauma.

1. Top of the Ladder: Ventral Vagal State (Safety and Social Engagement)

- **State**: Safety, calm, and connection.
- **Description**: At the top of the ladder, we are in the **ventral vagal** state, which is governed by the **ventral vagal complex** of the parasympathetic nervous system. This is the most evolved and regulated state of the autonomic nervous system. Here, we feel safe, grounded, and socially connected.
- **Emotional experience**: We experience feelings of joy, love, and trust. Our social engagement system is active, meaning we can connect with others, express ourselves, and listen openly.
- **Physiological response**: In this state, our body is calm, our heart rate is steady, and digestion works optimally. We can rest, digest food, heal, and access our creative thinking and problem-solving abilities.
- **Behavioural cues**: We smile, make eye contact, use open and relaxed body language, and communicate effectively.
- **When in this state**: We are at our best, open to experiencing abundance, joy, and love. This is where healing and growth happen, and we are able to regulate emotions and manage stress effectively.

2. Middle of the Ladder: Sympathetic State (Fight or Flight)

- **State**: Mobilisation, action, and threat response.
- **Description**: In the middle of the ladder, we shift into a **sympathetic** state. This state activates when our nervous system perceives danger or threat, triggering the **fight or flight** response. It is governed by the sympathetic branch of the autonomic nervous system, which is responsible for energising the body to respond to danger.
- **Emotional experience**: Feelings of anxiety, fear, anger, or frustration. We may feel restless, agitated, or hypervigilant.
- **Physiological response**: The heart rate increases, breathing becomes rapid and shallow, muscles tense, and stress hormones like adrenaline and cortisol flood the system. Blood flow is directed away from non-essential functions (like digestion) and towards the muscles to prepare for action.
- **Behavioural cues**: We may become defensive, reactive, or aggressive. Our body language may become rigid, and we might avoid social interaction or speak quickly and sharply.
- **When in this state**: We are focused on survival. It can be useful in short-term situations where quick action is needed (like escaping danger), but staying in this state for prolonged periods leads to chronic stress, anxiety, and physical strain.

Healing cannot happen here because the body is too busy dealing with perceived threats.

3. Bottom of the Ladder: Dorsal Vagal State (Shutdown and Immobilization)

- **State**: Collapse, freeze, or shutdown.
- **Description**: At the bottom of the ladder, the **dorsal vagal state** takes over. This state is governed by the **dorsal vagal complex** of the parasympathetic nervous system. It activates when the body perceives that escape or defence is impossible—when a threat is so overwhelming that neither fight nor flight is an option.
- **Emotional experience**: Feelings of numbness, hopelessness, disconnection, and dissociation. This state is often experienced in response to extreme stress or trauma.
- **Physiological response**: The body shuts down to conserve energy. Heart rate and blood pressure drop, breathing slows, and the body may feel heavy or immobilised. Some people may experience dissociation or feel as though they are detached from their body or emotions.
- **Behavioural cues**: In this state, individuals may withdraw from social interaction, become unresponsive, or feel paralyzed. They may feel emotionally disconnected or shut down, as if "frozen."
- **When in this state**: The body is in survival mode, but instead of taking action (as in the sympathetic state), it goes into a protective shutdown. This state can result from extreme danger or long-term trauma. While this state may protect us from overwhelming situations, being stuck here can lead to feelings of depression, fatigue, and chronic disconnection from others and oneself.

The goal of **nervous system regulation** is to learn how to **climb back up the ladder** toward the **ventral vagal state**, where we can heal, connect, and thrive. This involves recognizing when we are in a lower state, practising self-awareness, and engaging in **nervous system regulation techniques**.

Practices to Climb the Ladder:

- **From dorsal vagal (shutdown) to sympathetic (mobilisation)**:
    - Gentle movement (walking, stretching).
    - Stimulating sensory input (cold water splashes, invigorating scents).
    - Small, achievable tasks to re-engage with the world.
- **From sympathetic (fight or flight) to ventral vagal (safety)**:
    - **Breathing exercises** (slow, deep breaths stimulate the vagus nerve).
    - **Grounding techniques** (feeling your feet on the ground, focusing on your senses).
    - **Social engagement** (safe, positive connections with others).
    - **Mindfulness** and **yoga** to bring the body back to a state of calm.

It's important to note that healing the nervous system is often a gradual and ongoing process, and it can look different for each individual. However, by cultivating self-awareness, seeking support from therapists or other professionals, and engaging in practices that promote regulation and resilience, individuals can work towards living more fully in the ventral state and experiencing the abundance that comes with it.

So what is stress and why does it affect us so much?

Stress is the body's natural response to perceived challenges or threats, triggering a cascade of physical, emotional, and cognitive reactions. It is a survival mechanism designed to help individuals cope with difficult situations, often referred to as the "fight or flight" response. While stress can be beneficial in short bursts—helping us react quickly in emergencies or motivating us to meet deadlines—chronic or excessive stress can have negative effects on the body, especially the nervous system.

The Stress Response

When the body perceives a threat or stressor, the **hypothalamus** in the brain signals the SNS to release stress hormones such as adrenaline and cortisol. These hormones prepare the body for immediate action, leading to:

- **Increased heart rate**: To pump more blood to muscles and vital organs.
- **Rapid breathing**: To take in more oxygen.
- **Heightened alertness**: The brain focuses on the perceived threat.
- **Release of glucose and fats**: For immediate energy.
- **Suppression of non-essential functions**: Digestive and immune systems slow down, as they aren't necessary for immediate survival.

Chronic Stress and Its Impact on the Nervous System

While short-term stress prepares the body for action, chronic stress keeps the body in a prolonged state of alertness, which can have negative consequences:

1. **Overactivation of the SNS**: Continuous activation of the sympathetic nervous system leads to long-term release of stress hormones, causing fatigue, anxiety, and mood swings.
2. **Impaired PNS Function**: When stress is chronic, the parasympathetic nervous system has difficulty restoring the body to a calm state, leading to ongoing tension and lack of rest.
3. **Brain changes**: Chronic stress can alter brain structure and function, particularly in areas responsible for memory, learning, and emotional regulation (e.g., hippocampus and amygdala).

4. **Dysregulation of the HPA Axis**: The hypothalamic-pituitary-adrenal (HPA) axis, which controls the release of cortisol, can become dysregulated under chronic stress, leading to sustained inflammation and health issues.

Physical and Emotional Effects of Chronic Stress

- **Anxiety and depression**: Continuous activation of the SNS can lead to heightened anxiety and feelings of depression.
- **Impaired cognition and memory**: Stress can weaken areas of the brain involved in memory and learning, such as the hippocampus.
- **Immune suppression**: Stress can suppress immune function, making individuals more susceptible to infections.
- **Digestive problems**: Chronic stress disrupts digestion and can lead to issues like irritable bowel syndrome (IBS).
- **Cardiovascular problems**: Prolonged stress increases the risk of high blood pressure, heart disease, and stroke.

<u>Understanding the Vagus Nerve</u>

"The Vagus Nerve is your mind-body superhighway, sending nonstop information from body to brain to body. It is the main component of the parasympathetic nervous system and oversees many important bodily functions. It plays a role in stress, mood, immune response, digestion, heart rate and several other autonomic functions." - Amanda Armstrong

The word 'vagus', comes from the Latin word 'wandering', which is why it is often referred to as the 'wandering nerve', because it takes a long, windy path throughout the body. It is the longest cranial nerve in the entire body, extending down both the right and left sides of the body, it travels all the way through your brainstem to your colon. After leaving the brainstem, the vagus nerve travels down through the neck and thorax, into the abdomen, branching out to different organs, including:

- **Pharynx and Larynx:** Controls muscles involved in swallowing and speech.
- **Heart:** Modulates heart rate by signalling the sinoatrial node to slow the heartbeat.
- **Lungs:** Regulates breathing and bronchoconstriction.
- **Gastrointestinal Tract:** Provides parasympathetic fibres to the majority of the digestive tract, regulating digestion, peristalsis (movement of food), and secretion of digestive enzymes.
- **Esophagus:** Controls muscle movements for swallowing.
- **Liver, Pancreas, and Kidneys:** Provides autonomic input to these organs, influencing various metabolic processes.

The vagus nerve plays a central role in the gut-brain axis, helping regulate communication between the brain and digestive tract. It influences sensations of hunger and fullness and impacts mood and stress responses through gut hormone release and microbiome signalling. The vagus nerve helps modulate the body's immune response and inflammation by detecting inflammation in the body and signalling to reduce the production of pro-inflammatory cytokines. It controls the **sinoatrial node** of the heart, helping to slow the heart rate, particularly during relaxation. Influences lung function by regulating smooth muscle contraction in the bronchi, affecting breathing.

Healing our CNS and Improving the function of our Vagus Nerve is imperative for our mental health which is directly related to our physical health, as we've learned so far.

<u>Unlocking the Power of Your Vagus Nerve</u>

What is interoception?

Interoception is the sense that allows you to perceive and interpret the internal signals and sensations arising from within your body. This includes sensations like hunger, thirst, heart rate, breathing, muscle tension, and even emotions.

But let's look at interoception from a somatic lens…

Interoception is viewed as the body's innate intelligence, an embodied form of our intuitions. From this perspective, interoception encourages individuals to fully inhabit our body, being present with the sensations of muscles, joints, breath, and organs. This is because in somatic approaches train people to "feel" their body from the inside out, fostering a deeper understanding of how internal signals correspond to emotional and physical states.

Interoception helps identify areas of dysregulation in the body, particularly where trauma or chronic stress may have caused disconnect. For example, someone might feel constant tension in their chest without recognizing it as anxiety. Through interoceptive practices, individuals learn to sense and process these feelings, allowing the body to release stress and return to balance.

Nervous system mapping refers to the process of identifying and understanding the various functions, pathways, and responses of the nervous system. It involves mapping out how different parts of the nervous system (both the central and peripheral systems) are connected and how they regulate bodily functions, movement, sensation, and emotional responses.

Ventral Vagal - Regulation

Sensations	Emotions	Thoughts	Behaviours
Steady Relaxed Grounded Present Focused Energised but not over-stimulated Your body feels comfortable Laughing	Calm Connected Joyful Safe Present Creative Content Open Balance	"I can" "I am enough" "I can get through this" "Everything is okay" "I'm having a great time" "I am healing" "There's enough time"	Checking in with yourself before saying yes Secure attachment with yourself and others Can experience pleasure and joy Can communicate easily Can rest without feeling guilty

Sympathetic - Activation

Sensations	Emotions	Thoughts	Behaviours
Rapid heartbeat Shallow breathing Fast breathing Sweaty or clammy palms Tight chest Muscle tension Clenching Hypervigilant Shaking Tunnel vision Dizziness Body heat Fidgety Can't sit still	Concerned Confused Annoyed Worried Anxious Irritated Anger Panic Rage Urgency Irdatic	"I have to do this now" "This has to be done perfect or else" "I can't slow down" "Things will fall apart if I rest" "There's not enough time" "Are they mad at me?" Constantly going to the worst case scenario	Has a hard time slowing down Has a hard time resting or relaxing Over Controlling Overworking Always on the go / busy body Trouble sleeping Easily distracted Thoughts racing / rumination

Dorsal Vagal - Shutdown

Sensations	Emotions	Thoughts	Behaviours
Numb Disconnected Distant Blank Heavy Cold Low energy Limp Foggy Slow and shallow breathing Exhaustion Fatigue Not being in the body	Apathy Depressed Dissociated Hopelessness Helplessness Shut down Unable to feel Disinterested Disconnected Lonely	“I can’t” “It doesn’t matter anymore” “Nothing is going to change.” “Why bother” “No one cares” “What’s the point?” “Everything is too hard” “I just want to sleep it all away” “I’m unlovable” “I’m all alone”	Isolating Withdrawing from people you love Stopping activities you used to love Staying in bed Difficulty speaking up for yourself or making eye contact Body doesn’t want to move Flat facial expressions Lack of vocal tone Can’t focus

Understanding High & Low Vagal Tone

The vagal tone refers to the activity of the vagus nerve, which can be measured by heart rate variability (HRV). Higher vagal tone is associated with:

- Better emotional regulation.
- Greater resilience to stress.
- Improved social connectedness and communication.

Individuals with **high vagal tone** typically have better control over their emotional responses and are better equipped to manage stress, which is protective against mental health disorders like anxiety and depression. On the other hand, **low vagal tone** is associated with increased vulnerability to stress and emotional dysregulation, which can exacerbate conditions like depression, anxiety, and trauma-related disorders.

Signs of Low Vagal Tone:

1. **Chronic Stress and Anxiety:** Low vagal tone makes it difficult for the body to "turn off" the stress response, leading to prolonged activation of the **sympathetic nervous system (SNS)**. This can result in chronic anxiety, hypervigilance, and difficulty calming down after stressful events.

2. **Poor Emotional Regulation:** People with low vagal tone often struggle to regulate their emotions. They may experience mood swings, heightened emotional sensitivity, and feel overwhelmed easily.
3. **Depression:** A lack of proper vagal regulation of neurotransmitters, particularly **serotonin** and **dopamine**, can contribute to symptoms of depression. Individuals with low vagal tone may have difficulty experiencing positive emotions and managing low moods.
4. **Digestive Problems:** The vagus nerve helps regulate digestion by controlling peristalsis (the movement of food through the intestines) and the release of digestive enzymes. Low vagal tone can result in symptoms like:
    - **Irritable bowel syndrome (IBS)**
    - Bloating
    - Constipation or diarrhea
    - Indigestion
5. **Heart and Blood Pressure Issues:** The vagus nerve modulates heart rate and blood pressure. Low vagal tone can lead to:
    - An elevated resting heart rate.
    - Higher blood pressure.
    - Reduced **heart rate variability (HRV)**, which is a marker of poor autonomic function and stress resilience.
6. **Inflammatory Conditions:** Low vagal tone is linked to increased inflammation in the body. The vagus nerve helps modulate the immune system's inflammatory response by reducing the production of **pro-inflammatory cytokines**. In people with low vagal tone, this anti-inflammatory mechanism may be impaired, potentially contributing to chronic inflammatory conditions.
7. **Sleep Disorders:** People with low vagal tone often experience poor sleep quality, insomnia, or difficulty falling asleep due to the body's difficulty shifting into a relaxed state.

Potential causes of Low Vagal Tone:

1. **Chronic Stress and Trauma:** Long-term stress or traumatic experiences can weaken the vagus nerve’s ability to regulate autonomic functions. Trauma, especially in early life, can impair vagal tone and make it difficult for the body to achieve a calm state.
2. **Sedentary Lifestyle:** Lack of physical activity can reduce vagal tone. Exercise is known to improve heart rate variability and vagal function.
3. **Poor Diet:** Diets high in processed foods, sugar, and low in fibre can negatively impact gut health, which in turn can reduce vagal tone due to the gut-brain axis connection.
4. **Mental Health Disorders:** Conditions like anxiety, depression, and PTSD are both a cause and consequence of low vagal tone, creating a cycle of dysregulation.

Practical Tools & Exercises for Toning Your Vagus Nerve

Improving Vagal Tone:

Improving vagal tone can help regulate stress, improve emotional health, and support better physical health. Here are some effective methods for increasing vagal tone:

1. **Breathing Exercises:** Deep, slow breathing, particularly diaphragmatic breathing, activates the vagus nerve. A practice known as resonant breathing (about 5-6 breaths per minute) is especially effective for improving vagal tone.
2. **Meditation and Mindfulness:** Meditation, particularly loving-kindness meditation and mindful breathing, has been shown to enhance vagal tone. These practices promote relaxation and reduce stress.
3. **Cold Exposure:** Short bursts of cold exposure, such as a cold shower or immersing the face in cold water, can stimulate the vagus nerve and improve its function.
4. **Exercise:** Regular aerobic exercise, such as walking, running, or swimming, has been found to increase vagal tone. Exercise improves heart rate variability and helps regulate the autonomic nervous system.
5. **Social Connection:** Engaging in positive social interactions and laughing can stimulate the vagus nerve and improve vagal tone. Eye contact, smiling, and touch can all promote vagal activity.
6. **Singing, Humming, Chanting:** These activities stimulate the vocal cords, which in turn stimulate the vagus nerve. Practices like chanting or even just humming can help improve vagal tone.
7. **Probiotics and Gut Health:** Improving gut health by eating a diet rich in probiotics (such as yogurt, kefir, and fermented foods) and prebiotics (like fibre-rich vegetables) can enhance vagal tone through the gut-brain axis.
8. **Yoga and Tai Chi:** Both yoga and tai chi involve movements that encourage deep breathing, mindfulness, and relaxation, which are beneficial for vagal stimulation and increasing parasympathetic activity.

Proactive vs Reactive Healing Tools

Proactive healing tools or practices refer to consistent habits and lifestyle routines that improve vagal tone and nervous system flexibility. Proactive healing practices for the vagus nerve focus on enhancing its function and improving vagal tone, which can lead to better emotional regulation, reduced stress, and overall improved health. We do these proactively to support us in being able to self-regulate with more ease in moments of activation. It also supports us in decreasing the many symptoms that come with nervous system dysregulation and vagal tone dysfunction.

Reactive healing tools or practices refer to in-the-moment regulation exercises that help reverse the spiral of activation or shutdown (think of the practices to climb the ladder that I

shared earlier). These tools typically help you come back into connection with your body and environment in the present moment through your senses or specific practices that stimulate your vagus nerve.

Examples of Proactive Tools:

1. **Deep Breathing Exercises:**
    a. **Practice:** Slow, deep breathing engages the diaphragm and stimulates the vagus nerve.
    b. **Diaphragmatic Breathing:** Inhale deeply through your nose, allowing your abdomen to expand for a count of four, then exhale slowly through your mouth for a count of six. Repeat for 5-10 minutes, focusing on relaxing with each exhale.
2. **Meditation and Mindfulness:** Mindfulness meditation helps reduce stress and increases awareness of the present moment, which can activate the vagus nerve.
    a. **Loving-Kindness Meditation:** Sit comfortably, close your eyes, and silently repeat phrases wishing well for yourself and others (e.g., "May I be happy, may I be healthy"). This practice fosters positive emotions and calmness.
3. **Yoga:** Yoga combines movement, breath, and mindfulness, which can significantly enhance vagal tone.
    a. **Restorative Yoga:** Poses like Child's Pose or Legs-Up-The-Wall Pose promote relaxation. Holding these poses for several minutes while focusing on breath can activate the vagus nerve.
4. **Cold Exposure:** Exposure to cold activates the vagus nerve and can stimulate its function.
    a. **Cold Showers:** Start with warm water and gradually switch to cold for 30 seconds at the end of your shower. Alternatively, splash your face with cold water to stimulate the vagus nerve.
5. **Physical Exercise:** Regular physical activity helps improve heart rate variability and vagal tone.
    a. **Aerobic Exercise:** Engage in activities like jogging, cycling, or swimming for at least 30 minutes, several times a week. Group classes or team sports can also enhance social connections, further boosting vagal tone.
6. **Singing, Humming, and Chanting:** Vocalization stimulates the vagus nerve through the vocal cords.
    a. **Singing:** Choose your favourite songs and sing along. You can also try chanting simple mantras (e.g., “Om”) for a few minutes to engage the vagus nerve.
7. **Social Connection:** Positive social interactions can enhance vagal tone and promote feelings of safety and well-being.

    a. **Quality Time with Friends:** Engage in activities that foster connection, such as having a coffee with a friend, participating in group activities, or attending community events.
8. **Mindful Eating:** Eating mindfully can enhance digestion and activate the vagus nerve.
    a. **Savouring Meals:** Sit down to eat without distractions. Focus on the flavours, textures, and aromas of your food, chewing slowly and appreciating each bite.
9. **Guided Imagery or Visualization:** Using the imagination to create calming, positive scenarios can help activate the vagus nerve.
    a. **Guided Imagery Exercise:** Sit or lie down comfortably. Close your eyes and visualise a peaceful scene (like a beach or forest). Engage your senses by imagining the sounds, smells, and sensations you would experience there.
10. **Massage and Bodywork:** Massage can stimulate the vagus nerve and promote relaxation.
    a. **Self-Massage:** Gently massage the area around your neck and shoulders or use a tennis ball to release tension in your back. Consider getting regular massages or practising craniosacral therapy.
11. **Gratitude Practices:** Cultivating gratitude can improve emotional regulation and activate the vagus nerve.
    a. **Gratitude Journaling:** Each day, write down three things you are grateful for. Reflecting on positive aspects of life can shift your mindset and improve mood.
12. **Engaging in Creative Activities:** Creative expression can boost mood and stimulate vagal activity.
    a. **Artistic Pursuits:** Engage in painting, drawing, writing, or playing music. Allowing yourself to express creativity can be therapeutic and uplifting.

Examples of Reactive Tools:

1. **Deep Breathing Techniques:** When feeling anxious or stressed, deep breathing can quickly stimulate the vagus nerve and induce relaxation.
    a. **4-7-8 Breathing Technique:** Inhale deeply through your nose for a count of 4, hold your breath for a count of 7, and exhale slowly through your mouth for a count of 8. Repeat this cycle 4-5 times to quickly calm your nervous system.
2. **Grounding Exercises:** Grounding techniques help anchor you in the present moment, reducing feelings of anxiety or panic.
    a. **5-4-3-2-1 Technique:** Identify 5 things you can see, 4 things you can touch, 3 things you can hear, 2 things you can smell, and 1 thing you can taste. This method engages your senses and draws your focus away from distressing thoughts.

3. **Progressive Muscle Relaxation (PMR):** PMR involves systematically tensing and relaxing different muscle groups, helping to release physical tension associated with stress.
    a. **PMR Routine:** Start at your feet and work your way up. Tense each muscle group (e.g., feet, legs, arms) for 5 seconds, then relax for 30 seconds, noticing the difference. This practice can be done anywhere and helps promote relaxation.
4. **Cold Exposure Techniques:** Sudden exposure to cold can activate the vagus nerve and enhance parasympathetic activity.
    a. **Cold Water Splash:** When feeling overwhelmed, splash your face with cold water or immerse your face in a bowl of ice water for a few seconds. This can trigger the **diving reflex**, stimulating the vagus nerve and promoting relaxation.
5. **Gentle Movement:** Engaging in gentle movement can help release built-up tension and stimulate vagal activity.
    a. **Stretching:** Take a moment to stand up and do a series of gentle stretches, such as reaching your arms overhead or bending side to side. Moving your body helps to release tension and encourages relaxation.
6. **Visualisation or Guided Imagery:** Using guided imagery can help shift your focus from stress to a calming, peaceful scenario.
    a. **Calming Visualisation:** Close your eyes and imagine a serene place (e.g., a beach or forest). Picture yourself there, focusing on the sights, sounds, and feelings associated with this peaceful setting. Allow yourself to feel calm and grounded.
7. **Social Connection:** Engaging with others can stimulate the vagus nerve and provide emotional support during stressful times.
    a. **Reaching Out:** When feeling overwhelmed, call a friend or loved one to talk. Sharing your feelings and connecting with someone can help ground you and provide comfort
8. **Use of Aromatherapy:** Certain scents can trigger relaxation responses and stimulate the vagus nerve.
    a. **Essential Oils:** Use calming essential oils like lavender or chamomile. Inhale the scent directly or diffuse it in your environment. Scents can evoke feelings of calm and safety, enhancing your ability to manage stress.
9. **Journaling:** Writing down thoughts and feelings can help process emotions and reduce anxiety.
    a. **Expressive Writing:** Spend a few minutes journaling about what you're feeling at the moment. This can help you articulate and understand your emotions, providing clarity and relief.
10. **Massage or Self-Massage:** Physical touch can stimulate the vagus nerve and promote relaxation.

a. **Self-Massage:** Take a few moments to massage your neck, shoulders, or temples. Alternatively, use a massage ball to release tension in your back. The physical act of massage can help you feel more relaxed.

Resources:

Accessing the Healing Power of the Vagus Nerve: Self-Help Exercises for Anxiety, Depression, Trauma, and Autism by Stanley Rosenberg

Balance Your Hormones, Balance Your Life: Achieving Optimal Health and Wellness through Ayurveda, Chinese Medicine, and Western Science by Dr. Claudia Welch

Healing Through the Vagus Nerve: Improve Your Body's Response to Anxiety, Depression, Stress, and Trauma Through Nervous System Regulation by Amanda Armstrong

Waking the Tiger: Healing Trauma by Dr. Peter A. Levine

When the Body Says No: The Cost of Hidden Stress by Dr. Gabor Mate