

## **Nervous System Guide: Polyvagal Theory: Your Body's Safety System**

### **My Story: From Numb to Noticing**

Long before I discovered the nervous system's role in healing, I was surviving under the weight of pain—physical, emotional, and invisible. I had spent years managing a home, raising three children, supporting my single mom through cancer, and managing the breakdown of a relationship I had once built my life around—all while navigating a demanding career in education.

I was stretched beyond capacity, but I didn't know how to stop. I just kept taking care of everyone but myself. I had to—because that was my default hardwiring: keep fighting, keep enduring, keep holding it all together. Rest felt foreign. Softness felt unsafe.

Eventually, my body broke down.

The pain started in small ways—tightness, fatigue, deep aching—but it grew into something I couldn't ignore. I was eventually diagnosed with fibromyalgia. At the time, I didn't know about somatic therapy or nervous system regulation. No one mentioned trauma stored in the body. The only option presented to me was medication. The first prescription I received was none other than one of the most addictive, OxyContin. And like many, I trusted the doctor. We're conditioned to.

But over time, the pills became their own form of suffering. I began to lose myself. The pain didn't go away—it just blurred into a fog. What I didn't realize back then was that I wasn't just carrying physical pain. I was carrying the pain of the past—years of emotional exhaustion, unresolved grief, and stress that talk therapy alone hadn't touched. I had spent time processing stories, but not once did I learn how to let my body release what it had been holding.

No one ever told me that trauma lives in the tissues—not just in memory.

### **A Different Kind of Storm: Grieving My Father**

Years later, when my dad died, I had already begun exploring nervous system practices: restorative yoga, stretching, breathwork, and polyvagal-informed exercises. I had come so far. But grief, as it does, shook everything loose.

Even with all those tools, I found myself thrown back into dysregulation—restless, overwhelmed, emotionally raw. I was in an emotional fog. My body dropped back into old survival responses: fight, flight, freeze. I knew more this time, but knowing didn't make me immune. It made me more aware—which in itself was a kind of mercy.

Instead of numbing out or pushing through, I made a different choice. I leaned in. I doubled down on what I had learned. I gave myself space to grieve and ground. I stopped trying to fix the pain and started listening to it.

And I didn't do it alone. I leaned into my faith, my community of friends, and the support systems that reminded me I wasn't meant to carry it alone. Because grief and pain are too heavy to hold in isolation.

Healing is never just one practice. It's holistic. It's layered. It takes both—the steady, embodied work of nervous system regulation and the strength of relational support. It's a whole-person path to well-being.

These practices didn't remove the pain—but they gave me a way to be with it, to move through it without abandoning myself.

Now, I see what I couldn't see back then: that true healing isn't about silencing the body. It's about giving it a voice.

The tools I now encourage in my coaching practice —movement, breath, grounding, polyvagal awareness—aren't just techniques. They are lifelines. They are what helped me reclaim a sense of safety, wholeness, and agency.

And I share them not as a counselor, coach, or expert—but as someone who has lived the story of being disconnected, disoriented, and drugged, and who found her way home through the body.

## **Introduction: Your Nervous System Is Trying to Keep You Alive**

***"Owning our story can be hard but not nearly as difficult as spending our lives running from it." — Brené Brown***

We are wired for connection from the moment we take our first breath. Our lifelong quest is to feel safe — in our bodies, our environments, and our relationships. Behind the scenes, the autonomic nervous system serves as our personal surveillance system, constantly scanning for cues of safety or danger. This process happens beneath our awareness, shaping how we think, feel, and respond to the world.

Struggling with anxiety, chronic stress, or past trauma isn't just "in your head." It's deeply connected to how your nervous system has learned to protect you. That protection can show up as overthinking, shutting down, people-pleasing, or panic. But when we begin to understand the science behind these responses, we open the door to compassion—and change.

The polyvagal theory offers a powerful framework for understanding how your body and brain respond to threat and safety. It can help you make sense of your emotional patterns and give you tools to regulate your system—to feel more calm, connected, and grounded. Personally, learning this has been life changing. It helps me stay present, notice when I'm activated, and gently return to center.

**When you change the way you look at behavior, performance, and well-being, you change what is possible for you.**

Everything you do—or don't do—is your nervous system at work. It's your inner operating system, always trying to keep you alive.

And here's something important to remember:

**Trauma is not just the event that happened. It's what happened inside of you because of it.**

Your body remembers, even when your mind doesn't. But the good news? Healing is possible. And it begins with awareness.

***“The paradox of trauma is that it has both the power to destroy and the power to transform and resurrect.”—Peter Levine, *Waking the Tiger: Healing Trauma****

### **Why Insight (Talk Therapy) Alone Isn't Enough**

Talk therapy can be incredibly valuable. It gives voice to our stories, offers reflection, and helps us name and make sense of our pain. But sometimes, especially in the aftermath of trauma or deep emotional overwhelm, talking alone doesn't bring relief. That's not because we're doing it wrong—it's because of how our nervous system works.

When the body perceives danger, the amygdala—the emotional center of the brain—sounds the alarm. It floods the system with signals designed to keep you safe. This state of high alert shuts down the prefrontal cortex, the part of the brain responsible for rational thought, language, and decision-making. In other words, your ability to think clearly, stay present, and regulate emotions goes offline.

***“When the alarm bell of the emotional brain keeps signaling that you are in danger, no amount of insight will silence it.”***  
— Dr. Bessel van der Kolk, *The Body Keeps the Score*

This is why even the most insightful therapy session can leave us feeling frustrated or stuck—because the deeper healing doesn't happen through logic alone. The body must be involved.

Somatic tools like breathwork, grounding, vagus nerve toning, movement, and sensory awareness speak the language of the nervous system. They help the body *feel* safe again. These practices lower the physiological threat response, allowing the thinking brain to come back online. When the body feels safe, the mind can begin to process, integrate, and heal.

Think of it this way: trying to apply only positive thinking or insight-based strategies to trauma is like painting over a wall with peeling, chipped paint. Without first sanding, priming, or repairing what's beneath the surface, the new paint won't stick—and eventually, it cracks and flakes away. The nervous system is that foundation. Unless we address what's underneath—what the body still carries—our efforts won't hold. Insight helps, but only when the foundation is ready to receive it.



Incorporating both cognitive and somatic approaches creates a fuller, more compassionate path to healing. You don't have to choose between talk therapy and body-based work—they amplify one another.

### Why Perceived Capability Calms the Nervous System

***The body doesn't just react to the world—it reacts to what we believe about ourselves in it.***

When we feel capable of navigating emotional waves, our nervous system doesn't sound the alarm as quickly or as loudly. It's not just *what* happens that triggers stress—it's *whether we believe we can handle it*.

#### The Science Behind It:

A Harvard study found that one of the most reliable predictors of stress isn't the event itself, but the anticipation of it—and more specifically, how *capable* someone feels in facing it.

This ties directly to self-efficacy theory which suggests that the more we believe in our ability to cope, the less reactive we become.

Simply put: Perceived control changes everything.

When we believe we can regulate our emotions, our stress response activates less intensely.

#### Why This Matters for Regulation:

- **Lower physiological stress:** Feeling prepared reduces cortisol spikes, heart rate surges, and muscle tension.
- **Faster emotional recovery:** Emotional regulation practices (like breathwork, body scans, and cognitive reframing) help us return to baseline more quickly.
- **Increased resilience:** With each successful cycle of regulation, our brain learns: *I can do this*. That confidence is protective.

### Understanding Your Nervous System: A Key to Calm

Our nervous system is like the command center of the body. It's made up of two main parts:

- The Central Nervous System (CNS) — which includes the brain and spinal cord, protected by your skull and spine.
- The Peripheral Nervous System (PNS) — which includes all the nerves outside the brain and spinal cord. This system helps the brain communicate with the rest of the body.

The **Autonomic Nervous System (ANS)** is part of the PNS and plays a major role in how your body responds to stress and relaxation—without you even thinking about it. It works closely with the brain to keep everything in balance (a state called *homeostasis*). When your brain gets information about what's happening in or around you, it tells the ANS how to respond.

#### The ANS has two main branches:

1. The **Sympathetic Nervous System (SNS)**: This is your **"fight or flight"** system, kicking in when you feel threatened or stressed. While this response is helpful in emergencies, **chronic activation**—when your system is stuck in overdrive—can lead to anxiety, trouble sleeping, digestive issues, and a weakened immune system.

#### What the SNS does:

- Speeds up your heart rate and increases blood pressure

- Dilates your pupils to improve vision
- Slows down digestion and other non-essential functions
- Releases stress hormones like adrenaline and cortisol

2. The **Parasympathetic Nervous System (PNS)**: This is your **“rest and digest”** system, helping you slow down, relax, and recover.

One important part of this system is the ventral vagal pathway, which helps soothe the body after fight-or-flight. This is where true healing begins—when we feel connected, safe, and present. What goes up must come down—and the parasympathetic system is what helps bring us down from stress and back into balance.

Together, these systems constantly scan and respond to your environment, working through survival-based pathways that either activate or calm your body. Learning how to recognize and support these systems is a powerful step toward emotional regulation, healing, and overall well-being.

### **Polyvagal Theory: Your Body's Safety System**

At the heart of this theory is the vagus nerve, the longest cranial nerve in the body. Its name means “wanderer,” and it lives up to that name—traveling from the brainstem through the face, heart, lungs, and all the way to the abdomen. It plays a central role in regulating your heart rate, digestion, mood, and emotional responses.

In simple terms, it acts like a communication superhighway between your body and brain. When toned and functioning well, it can help calm your system, reduce anxiety, and increase feelings of compassion and connection. That’s why it’s sometimes called the *“nerve of compassion.”* Over 75% of the nerve fibers that trigger the body’s relaxation response run through the vagus nerve. This makes it essential for self-healing, recovery, and immune function.

### **The Three States of the Nervous System**

According to **Polyvagal Theory**, your nervous system has three main states:

1. **Ventral Vagal – Safe & Social**  
You feel calm, grounded, and connected. You’re able to think clearly, connect with others, and be present.  
*(“Ventral” means the front of the body.)*
2. **Sympathetic – Fight or Flight**  
You feel anxious, restless, or ready to run or react. Your body is in a high-alert, activated state.
3. **Dorsal Vagal – Freeze or Shutdown**  
You feel numb, hopeless, disconnected, or shut down. This is the body’s response to overwhelming threat.  
*(“Dorsal” means the back of the body.)*

### **Why This Matters**

The more often we activate a certain part of our nervous system, the stronger it becomes—just like a muscle. If you’re constantly stressed, your body gets better at being in fight-or-flight. But when you practice things that calm the nervous system, you strengthen your ability to return to a regulated, peaceful state.

### **A Tree of Regulation**

Let’s bring the science of the nervous system to life with a metaphor that’s grounded—no pun intended. 😊

Imagine your nervous system as a tree: deeply rooted, ever adapting, and alive. Just like a tree responds to its environment—sunlight, storms, drought—your nervous system responds to the world around and within you.

Each part of the tree represents a different state of your nervous system. This helps us see how our whole being—body, mind, emotions—is affected by our experiences.

### **Roots — Dorsal Vagal State (Shutdown)**

When life feels overwhelming or unsafe, we retreat underground. In the **dorsal vagal state**, your body shuts down to conserve energy. You may feel numb, disconnected, or frozen—like you're too tired to move, speak, or even think clearly.

#### **Common experiences include:**

- Emotional numbness, dissociation, mental fog
- Feeling heavy, hopeless, isolated, or invisible
- Shallow breathing, slowed heart rate, low energy

#### **Thoughts from this state might sound like:**

“I’m alone. There’s no way out. Nothing will change.”

When we live in this state for extended periods, it can lead to:

- Depression, chronic fatigue, and fibromyalgia
- Digestive problems, low blood pressure, and weight gain
- Difficulty connecting with others or completing daily tasks

### **Trunk — Sympathetic State (Fight or Flight)**

When a threat is detected, energy surges upward. Your body prepares for action—whether it’s to fight, flee, or fix. In this mobilized state, you may experience:

- Racing heart, shallow breath, muscle tension
- Restlessness, hypervigilance, or the need to move
- Emotions like anxiety, anger, or irritability

Your inner dialogue might say: “The world isn’t safe. I need to stay in control. Something bad is about to happen.”

#### **If this state becomes chronic, you might notice:**

- Panic attacks, irritability, difficulty concentrating
- Strained relationships and poor sleep
- Brain fog, memory issues
- Physical symptoms like high blood pressure, chronic pain, or stomach issues

### **Canopy — Ventral Vagal State (Safe & Social)**

At the top of the tree, branches stretch toward light. This is where you feel safe, open, and connected—to yourself and others. In this state, you:

- Feel calm, joyful, playful, and engaged
- Are present and focused, not lost in racing thoughts
- Can see the bigger picture, listen well, and relate to others
- Move through your day with intention and ease

**Daily signs of ventral regulation include:**

- Following through on plans
- Balancing rest, work, and play
- Feeling emotionally stable and connected to others

**Health benefits of this state:**

- A strong immune system
- Balanced digestion and sleep
- Regulated blood pressure and heart rate

**Activating the Vagus Nerve: Simple Daily Regulation**

The vagus nerve helps your body shift into calm, connection, and healing – you feel at home in your body. When activated, it sends signals that:

- Lower inflammation
- Balance the immune system
- Improve memory and digestion
- Reduce tension headaches
- Increase feelings of peace, connection, and safety

It also stimulates the release of acetylcholine (which calms the body) and oxytocin (the “bonding hormone”).

This is just an introduction to polyvagal practices you can weave into daily life. Just like muscles, vagal tone improves with practice. Below are evidence-informed ways to gently activate this powerful nerve and support your nervous system every day. Most take just a few minutes—but their impact adds up over time.

For deeper guidance, explore the resources and videos linked at the end of this guide.

**These are my everyday habits that I can easily integrate throughout my day:****1. Grounding Techniques**

Focus on your senses: Identify five things you can see, four things you can touch, three things you can hear, two things you can smell, and one thing you can taste.

*This practice anchors you in the present moment, signaling safety to your nervous system.*

**2. Deep Breathing**

- Diaphragmatic breathing with mindfulness stimulates calm.
- Box Breathing: Inhale for four counts, hold for four, exhale for four, and hold for four.
- Deep Diaphragmatic Breathing: inhale slowly for 4 seconds, exhale for 6–8 seconds.
- Extended Exhale Breathing: try 4-7-8 breathing — inhale 4s, hold 7s, exhale 8s.

**3. Mindful Movement**

Engage in gentle physical activities like restorative yoga, tai chi, or stretching, combining movement with intentional breathing to promote balance.

**4. Progressive Muscle Relaxation (PMR)**

Tense each muscle group for a few seconds, then release, moving from feet to head.

## 5. Safe Haven Visualization

Close your eyes and imagine a place where you feel completely safe and at ease.

*Engage all your senses to make the visualization vivid, reinforcing a sense of security.*

## 6. Gratitude Practice

- Reflect on three things you're grateful for daily.

*Gratitude stimulates feel-good neurotransmitters, fostering a positive emotional state.*

## 7. Sensory Stimulation

- Listen to sound baths, soothing music, or nature sounds
- Use essential oils like lavender or chamomile for calming effects.

## 8. Social Connection and Laughter

- Engage in meaningful conversations or laughter to reduce stress.
- Watch a comedy, play with pets, or engage in playful activities.
- Hug someone, hold hands, or spend time with a pet.

## 9. Prioritize Restorative Sleep

- Create a bedtime routine with minimal screen exposure, candles, and calming activities.
- Ensure your sleep environment is cool, dark, and quiet.

## 10. Meditation

Sit quietly and focus on your breath or a body scan for 5–10 minutes.

## 11. Laughter

Laughter engages your diaphragm and helps shift your nervous system into a relaxed, connected state. Watch a funny show, call a friend, or laugh on purpose (yes, it works!)

## 12. Massage and Ear Stimulation

Gentle touch can stimulate vagal pathways. Try massaging your ears, scalp, or neck. One method:

- Place your fingers behind the ears (near the mastoid bone).
- Massage in small, circular motions around the ear's base and curve.
- Add gentle pressure to the tragus (the flap at the ear canal's front).

## 13. Meaningful Conversation

Being heard and seen in relationship is a core need of the nervous system. Honest conversation, compassionate listening, and warm connection increase oxytocin and vagal tone.

## 14. Probiotics and Gut Health

Your gut and brain are in constant communication through the vagus nerve. A healthy microbiome supports mental clarity, emotional stability, and calm. Fermented foods and quality probiotics can help.

## 15. Sleep on Your Right Side

Some studies suggest that sleeping on your right side may help stimulate the vagus nerve, as it runs down the right side of the neck. A small tweak to support deeper rest.

## Other ways to Reset:

- **Cold Exposure:** splash cold water on your face, take a cold shower or plunge, or apply an ice pack to your neck.
- **Humming, Chanting, or Singing:** hum “mmm,” chant “Om,” or sing out loud.
- **Gargling:** gargle with warm water deeply for 30–60 seconds.
- **Heart Coherence Practice:** breathe slowly while focusing on your heart and a positive emotion.

## Additional Resources for Polyvagal Exercises:

### Video Introductions:

[Trauma and the Nervous System – Polyvagal Perspective](#) – great 8-minute video summary  
[8 Minute Video Introduction by Deb Dana](#)

### More Resources:

[The Movement Paradigm](#) – Alternative Health with Physical Therapist, Nutritionist, and Functional Practitioner.

[Sukie Baxter - Whole Body Revolution.](#)

Her book: Assessing the Healing Power of the Vagus Nerve.

Calm with Kyle – therapist. (Listen at 1.25 speed – he talks slow.)

[Vagus Nerve Reset](#)

[Unlock Inner Calm: 8 Easy Vagus Nerve Exercises](#)

### [Waking Up The World YouTube Channel](#)

**Great Collection of Authors offering meditation, self-awareness,** resilience, mindfulness, somatic healing, yoga, meditation, breathing. Michael Singer, Eckhart Tolle, Tara Brach, Jon Kabat-Zinn, Thich Nhat Hanh.

### Foam Roller Techniques and Exercises for Pain

[Tune Up Fitness](#) – many more vagal exercises and ways to stretch.

[Positive Motion Chiropractic](#) – release back pain. Using Roller Tone and Tighten – Foam Roll Techniques

[Trigger Point Foam Rolling](#)

[Tune Up Fitness](#) – many more vagal exercises and ways to stretch.

[Yoga Body](#) – (lots of visuals with science and biomechanics) stretching, vagal stimulation, range of motion, yoga, and back pain.

[Tone and Tighten](#) – foam rolling from a Physical Therapist

### More Detailed Information

[Brain Based Wellness](#) – free nervous system training course by Elisabeth Kristof.  
 \$50 Breathing Online Course

[Deb Dana](#) is a co-founder of The Polyvagal Institute with Stephen Porges. In 2018 they co-authored *Clinical Applications of the Polyvagal Theory: The Emergence of Polyvagal-Informed Therapies* (Norton, 2018).