

# UNDERSTANDING THE AUTONOMIC NERVOUS SYSTEM:

### A Free Guide to Regulation and Resilience

Learn about your body's survival states and practical steps to find balance.

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# THE BODY'S COMMAND CENTER

The **autonomic nervous system (ANS)** is your body's command center, working tirelessly behind the scenes to keep you safe and balanced. Unlike conscious actions, the ANS operates automatically, managing vital functions like heart rate, breathing, digestion, and our response to stress. It is the body's built-in survival mechanism that ensures we adapt quickly to threats and maintain stability once the danger has passed.

The ANS has two main branches: the sympathetic nervous system and the parasympathetic nervous system. These branches work together to regulate our responses to both danger and safety.

- The sympathetic nervous system activates in moments of perceived danger, preparing the body to either fight or flee. It increases heart rate, pumps adrenaline, and sharpens focus—everything needed for immediate survival.
- Within the parasympathetic nervous system, the vagus nerve has two branches: the ventral vagal, which promotes feelings of safety, connection, and calm, and the dorsal vagal, which activates during extreme stress to trigger a shutdown response. The ventral vagal helps us engage socially and relax, while the dorsal vagal acts as a last-resort mechanism, leading to numbness, disconnection, and even fainting when the body perceives there is no way to escape or fight a threat.

These states ensure that we can both respond to threats and recover from them. However, when this system is overwhelmed by chronic stress or trauma, it can become dysregulated, leading to states of imbalance that feel difficult to escape.



### Survival Roots in Our Ancestors

The Autonomic Nervous System developed over thousands of years, finely tuned to help our ancestors navigate a world full of predators and dangers. Early humans relied on their survival instincts to escape threats like wild animals or rival tribes. These different nervous system responses were vital adaptations to keep them alive.

- **Fight:** Confront the threat head-on.
- Flight: Escape danger quickly.
- **Freeze:** Stay perfectly still to avoid detection.
- **Shutdown:** Conserve energy when the threat seems inescapable.
- Fawn: Appease the perceived threat to ensure safety.

While these responses were crucial for survival in the wild, modern life presents stressors that are very different yet can feel just as overwhelming. Deadlines, financial worries, social rejection, or unresolved trauma can trigger the same survival mechanisms, even though our physical safety isn't at risk.

These ancient survival states, when activated repeatedly or for long periods, can leave us stuck in cycles of stress and dysregulation. Understanding how the ANS functions and its evolutionary origins can help us begin to work with, rather than against, our body's natural processes to find healing and balance.

By gaining awareness of these systems, you can start to recognize the patterns within your body and take the first steps toward regulation and resilience.

### RESPONSE



# THE ACCELERATOR: MOBILIZING ENERGY TO FACE THREATS

The **sympathetic nervous system (SNS)** acts as the body's accelerator, preparing us to respond to threats through the classic **"fight or flight"** response.

When the brain perceives danger—whether physical or emotional—the Sympathetic Nervous System is activated, flooding the body with stress hormones like adrenaline and cortisol. This response is designed for immediate survival, enabling us to confront or escape from the perceived threat.

Biologically, the SNS initiates a cascade of reactions:

- Heart rate and blood pressure increase to pump more oxygen and nutrients to vital organs and muscles.
- Breathing becomes rapid and shallow to take in more oxygen.
- Digestion slows down to redirect energy toward survival.
- Muscles tense, ready for action, while senses sharpen to detect danger more effectively.

This heightened state of alertness is invaluable in short bursts—like reacting to a car swerving toward you—but chronic activation of the sympathetic nervous system can lead to exhaustion and health issues. When the SNS is constantly "online", it can disrupt sleep, impair digestion, and fuel a cycle of anxiety and hypervigilance, leaving us feeling perpetually unsafe.

# SYMPTOMS OF A FIGHT/FLIGHT STATE

When stuck in a fight/flight response, the following symptoms may arise:

### **Physical Symptoms**

- Racing or pounding heart.
- Rapid, shallow breathing.
- Tight, tense muscles (jaw clenching, shoulders, fists).
- Sweating, dizziness, or trembling.

### **Emotional Symptoms**

- Feeling irritable, angry, or easily triggered.
- Persistent anxiety or worry.
- Hypervigilance—being on edge or overly alert.

### **Behavioral Symptoms**

- Overworking or struggling to relax.
- Perfectionism, feeling the need to control everything.
- Avoidance of perceived threats, even if they are minor.

## STEPS TO CALM A SYMPATHETIC NERVOUS SYSTEM ACTIVATION

When the accelerator feels stuck, you can use specific techniques to slow down and shift toward safety. Here are some practices to help provide relief:

**Grounding Exercises:** Grounding helps bring you back into the present moment and provides a sense of safety.

• Orient yourself to the space around you by observing objects, noticing colors, or naming things you see.

**Somatic Practices:** Releasing tension through movement can help discharge the built-up energy in your system.

- Try shaking: Stand with your feet shoulder-width apart and gently shake your hands, arms, and legs.
- Stretch or practice gentle body movements to soften areas of tension (e.g., unclench your jaw or roll your shoulders).

**Breathwork:** Controlled breathing helps reset the nervous system by activating the parasympathetic branch.

• Use extended exhales: Breathe in for a count of 4 and exhale for a count of 6 or 8 to promote calm.

### RESPONSE



# THE BRAKE: WHEN THE BODY SHUTS DOWN

The **dorsal vagal branch** of the parasympathetic nervous system acts as the body's emergency brake, engaging a state of **shutdown or immobilization** when survival feels impossible. Unlike the fight/flight response, which activates energy to confront or escape danger, dorsal vagal shutdown occurs when the brain perceives overwhelming danger or hopelessness. In this state, the body and mind "power down" to conserve energy, protect from further harm, and endure unbearable circumstances.

This survival response has evolutionary roots. Early humans, when faced with inescapable threats, like predation, relied on immobilization to avoid detection or to endure severe trauma. By conserving energy and minimizing activity, the dorsal vagal response increased the chances of survival in life-threatening situations. However, in modern times, this state can be triggered by emotional or psychological stressors, leaving individuals feeling stuck, disconnected, and unable to move forward.

This state often triggers dissociation, a protective process where the mind disconnects from the body or emotions to shield us from the full impact of trauma. Dissociation serves as a buffer, dulling physical and emotional pain and creating a sense of detachment from overwhelming circumstances. It's the body's way of saying, "You don't have to feel this right now to survive." While this response is life-saving in moments of acute danger, it can become a challenge when it persists long after the threat has passed, leaving individuals feeling numb, disconnected, or stuck.

# SYMPTOMS OF DORSAL VAGAL SHUTDOWN

When the dorsal vagal system is engaged, it can manifest as a sense of collapse or immobilization, affecting physical, emotional, and behavioral functioning:

### **Physical Symptoms**

- Low energy or overwhelming fatigue.
- Slowed heart rate and shallow breathing.
- Heaviness in the body, making movement feel difficult or impossible.
- Feeling physically "shut down" or frozen.

### **Emotional Symptoms**

- Numbness or emotional detachment.
- Depression or dissociation
- Feelings of despair, hopelessness, or deep sadness.
- Disconnection from the world and a sense of isolation.

### **Behavioral Symptoms**

- Withdrawing socially, avoiding friends or family.
- Procrastinating or struggling to start even small tasks.
- Difficulty making decisions or taking action.

# STEPS TO SHIFT OUT OF DORSAL VAGAL SHUTDOWN

The key to shifting out of dorsal vagal shutdown is gently reawakening energy and connection. Because this state is one of extreme conservation and withdrawal, regulation requires slow, compassionate steps toward safety and engagement.

### **Gentle Movement**

- Try gentle stretching: Extend your arms, roll your shoulders, or softly stretch your legs.
- Experiment with rhythmic rocking: Sit in a chair and sway back and forth or gently rock your body.

### Anchoring Exercises

- Try sensory anchoring: Notice the feeling of your feet on the ground, your hands on your lap, or the texture of a soft surface.
- Practice self-touch techniques, like placing a hand on your chest or rubbing your palms together.

### **Gradual Social Re-Engagement**

- Reconnecting with others can help move out of immobilization, but it's essential to do so at your own pace.
- Start with safe forms of interaction like a short text message to someone you trust or just being in someone's presence without the pressure for conversation.

### RESPONSE



# FROZEN IN TIME: WHEN SYMPATHETIC AND DORSAL COLLIDE

The **freeze response** is a unique survival mechanism that arises when the body is caught between mobilization (sympathetic activation) and immobilization (dorsal vagal shutdown).

### In this state, the nervous system becomes "stuck," unable to decide whether to fight or flee. This dual activation creates a sense of paralysis, leaving the body ready to act but simultaneously immobilized.

From an evolutionary perspective, the freeze response served as a powerful tool for survival. In the wild, animals that froze in the face of predators often avoided detection, as stillness could make them appear less threatening or invisible. For humans, this response often emerges in moments of extreme fear or danger when no viable escape route exists.

However, when the freeze response becomes chronic, it can feel like being frozen in time. The body and mind remain locked in an unresolved state, struggling to break free from perceived threats that no longer exist. This response is not a failure, but a testament to the body's incredible ability to protect itself in moments of overwhelming fear or trauma.

# SYMPTOMS OF FREEZE STATE:

Freeze symptoms arise when the nervous system is caught between the opposing forces of mobilization and immobilization, creating a state of paralysis that leaves the body prepared to act but unable to move.

### **Physical Symptoms**

- Muscle tension
- Shallow or restricted breathing
- Heaviness in the body
- A feeling of being paralyzed or unable to move.

### **Emotional Symptoms**

- A sense of being stuck, overwhelmed, or powerless
- Feelings of indecision and detachment.

### **Behavioral Symptoms**

- Avoidance of tasks or responsibilities
- Difficulty taking action
- Zoning out
- Engaging in escapist behaviors such as excessive scrolling or daydreaming.

# STEPS TO SHIFT OUT OF THE FREEZE RESPONSE

- **Bilateral Stimulation:** Lightly tap alternating thighs or shoulders, or move your feet back and forth.
- **Breathwork:** Use rhythmic breathing to invite movement and flow into the body. Try a pattern such as inhaling for 4 counts, holding for 2 counts, and exhaling for 6 counts.
- **Reconnection with the Present:** Ground yourself by orienting to your surroundings. Name five objects you can see, four textures you can touch, three sounds you can hear, two things you can smell, and one thing you can taste.
- **Small, Intentional Movements:** Start with subtle movements to reintroduce action into your body. Clench and release your fists, wiggle your toes, or roll your shoulders.

RESPONSE



# THE CAREGIVER INSTINCT: SURVIVING THROUGH CONNECTION

The **fawn response** is a survival mechanism that emerges in the face of relational or social threats.

This adaptive strategy often involves appeasing others to avoid conflict, rejection, or harm. By prioritizing the needs and emotions of others, the nervous system seeks to ensure safety through connection and approval.

For many, the fawn response develops in environments where expressing needs or asserting boundaries felt unsafe. It is a way of navigating power imbalances or volatile relationships, allowing an individual to maintain some level of security in unpredictable or threatening situations. However, over time, this survival strategy can take a toll on one's sense of self and can lead to chronic patterns of self-abandonment and difficulty asserting autonomy.

While the fawn response reflects the body's incredible capacity to adapt, it often leaves individuals feeling drained, disconnected from their own needs, and trapped in cycles of people-pleasing.

# SYMPTOMS OF THE FAWN STATE:

The symptoms of the fawn state arise as the nervous system adapts to relational or social threats, prioritizing connection and approval to maintain safety, often at the cost of one's own needs and boundaries.

### **Physical Symptoms**

- Muscle tension
- Fatigue from overexertion
- Difficulty setting boundaries
- Feelings of physical discomfort when trying to say "no."

### **Emotional Symptoms**

- Over-apologizing
- Feelings of guilt or shame
- Fear of conflict or rejection
- Low self-esteem

### **Behavioral Symptoms**

- Constantly prioritizing others' needs over your own
- Difficulty asserting yourself
- Avoiding confrontation
- Saying "yes" when you mean "no."

# STEPS TO SHIFT OUT OF THE FAWN RESPONSE

- **Boundary-Setting Practice:** Begin practicing boundaries in low-stakes situations. For example, say "no" to small requests or express a preference when asked. Gradually build confidence in asserting your needs.
- Journaling: Reflect on the origins of your peoplepleasing patterns. Ask yourself questions like, "Where did I first feel the need to appease others?" and "How does this behavior serve me, and what does it cost me?"
- Somatic Focus: Place a hand on your chest or belly and take slow, deep breaths. Affirm your safety by saying, "I am safe to express my needs," or "I am grounded and in control of my choices."

# UNDERSTANDING THE VENTRAL VAGAL COMPLEX

The **ventral vagal response**, a key component of the **parasympathetic nervous system**, is often referred to as the state of rest and digest. When your nervous system activates the ventral vagal pathway, you feel grounded, safe, and capable of connecting with others. This is the state that supports social engagement, creativity, and rest, allowing your body and mind to recover and recharge.

### What Does Ventral Vagal Activation Feel Like?

When you are in this state, you might notice:

- A sense of safety and calm.
- The ability to connect and communicate effectively.
- Balanced breathing and a steady heart rate.
- Emotional stability and resilience.
- A capacity for creativity and problem-solving.
- The ability to rest, digest, and restore energy.
- A sense of curiosity, openness, and hopefulness.

In this state, the nervous system sends signals of safety to your body, allowing vital processes like digestion, immune function, and repair to operate optimally. You can think of it as your system's "recharge mode."



### The Ventral Vagal State Is Essential —but Not Constant

While this state is foundational for health and well-being, it's not one we are meant to remain in 24/7. Life naturally includes moments of stress, challenge, and even danger, requiring your nervous system to adapt and shift into other states, such as the fight-or-flight response. These shifts are normal and adaptive, helping you meet the demands of your environment. However, when stress becomes chronic or trauma remains unresolved, your nervous system can get "stuck" in survival states, making it difficult to return to ventral vagal regulation. This is why practices that promote ventral vagal activation—like deep breathing, mindfulness, and social connection—are so important.

### **Integrating Ventral Vagal Practices**

Cultivating moments of calm and connection throughout your day helps strengthen your ability to return to this regulated state after periods of stress. Remember, your nervous system isn't designed to avoid stress entirely, but to recover from it effectively. Building this capacity is what fosters resilience and overall nervous system health. The ventral vagal response is a reminder that while we cannot control everything around us, we can nurture a sense of safety and connection within ourselves.



# A FINAL NOTE

As you embark on your journey of healing, it's important to recognize that you can experience multiple states at once. The human nervous system is complex and layered, meaning that moments of calm and moments of dysregulation can co-exist. It's a normal part of the process, especially as you work toward creating more balance and resilience within your body and mind.

The first step toward healing is understanding the survival states that you've been living in. These states are protective mechanisms that your nervous system developed in response to past trauma or stress. They were adaptive at the time, designed to help you survive in difficult situations. It's crucial to recognize that these patterns are not flaws or weaknesses. They are your body's way of coping with overwhelming experiences, and they have kept you safe. Understanding these survival states is key to transforming them.

Calming the nervous system is a crucial first step when we find ourselves in a state of overwhelm, but it's important to understand that calming and regulating the nervous system are not the same thing. While calming techniques provide immediate relief and are incredibly helpful, true regulation goes deeper.

Regulation is about building resilience—staying grounded and connected even in challenging moments. This deeper work requires a supportive space where you can safely explore and grow.

That's where somatic coaching comes in. As a somatic coach, I can guide you on this journey, helping you find true nervous system regulation.



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I have come to the conclusion that human beings are born with an innate capacity to triumph over trauma. I believe not only that trauma is curable, but that the healing process can be a catalyst for profound awakening a portal opening to emotional and genuine spiritual transformation. I have little doubt that as individuals. communities, and even nations, we have the capacity to learn how to heal and prevent much of the damage done by trauma. In so doing, we will significantly increase our ability to achieve both our individual and collective dreams.

- Peter Levine

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# ABOUT ME:

Hi, I'm Hannah. I know firsthand what it's like to feel stuck in survival mode overwhelmed, disconnected, and unsure if real healing is even possible. For several years, I've been learning how to navigate the highs and lows of life while rebuilding a sense of safety and connection in my own body.

Through self-study, professional training, and a recovery path I designed myself, I began to understand my nervous system and the ways it had adapted to keep me safe in the past. That understanding changed everything. Slowly, I found ways to come back to myself, to feel more grounded, and to truly thrive.

Now, I'm passionate about helping others do the same. This type of healing is deeply personal to me because I've lived through trauma and struggled with addiction for over a decade. I know what it's like to feel dysregulated, and I also know the incredible freedom that comes with finding regulation and resilience.

My approach is gentle, compassionate, and rooted in the belief that your body has the wisdom to heal—you just need the right support to access it. If you've ever felt like there's more to life than just surviving, I'm here to remind you that there is. Healing is messy, but it's also possible. You're not alone, and I'd be honored to walk this path with you.

# 1:1 SOMATIC COACHING

Understanding your nervous system is a powerful first step, but healing happens in the practice. If you're ready to explore this work more deeply, somatic coaching can offer personalized guidance to support your unique journey.

Together, we can create a safe space to release stored stress, strengthen your resilience, and reconnect with your natural capacity for balance and regulation. You don't have to navigate this alone. Gentle, consistent support can make all the difference.

### Ready to Take the Next Step?

Book a session

Have Questions? Feel free to email me at hannah@thrivalrecovery.com

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