# the nervous system workbook

practical exercises to ease anxiety, find safety, and come home to yourself using polyvagal theory

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SOUNDS TRUE INNER WORKBOOKS

# introduction

hile you may think your brain directs your daily experiences, in fact the way you move through the world-the stories about who you are, how the world works, what you do, and how you feel-begins in your body with the autonomic nervous system. Your nervous system shapes your experiences of safety and connection and guides the way you navigate living, loving, and working. Yet, up until now, most of us have not been taught what the nervous system does or how it works. Without a basic understanding of this essential system, you're in the dark and missing opportunities to experience your days differently and live your life with greater ease. To get to know your nervous system, you need to become familiar with Polyvagal Theory. Developed by renowned scientist Dr. Stephen Porges, Polyvagal Theory explains the science of safety and connection and gives you a map of your nervous system to guide your exploration. This theory is the foundation of this workbook.

My passion, and the intention of this workbook, is translating the science of connection—what I like to call the science of feeling safe enough to fall in love with life—into a language that is easy to understand and developing tools and practices to help you partner with your nervous system and bring more moments of regulation and connection into your daily life. As a clinician and author specializing in using the lens of Polyvagal Theory to understand and resolve the impact of trauma in our lives and create ways of being that honor the role of the autonomic nervous system, I am excited to be your guide in this exploration of your nervous system.

For ten years I have collaborated with Dr. Porges as a mentor, coauthor, colleague, and friend to bring Polyvagal Theory into clinical application. Lately, I have expanded my work to bring Polyvagal Theory to communities outside the clinical arena so everyone can experience the many benefits of a regulated nervous system and navigate life with greater ease. What I love about the nervous system is that it is the common denominator in our human experience. We all have a nervous system that works in similar ways and, in a world that often feels disconnected, that shared experience brings us together. When I look at myself and others through the lens of the nervous system, I recognize that we are all trying to find the state of safety that supports connection.

### A regulated nervous system is fundamental to the process of navigating the world with a sense of safety and ease. Healing happens as we increase our capacity for regulation.

While I have been exploring this work for many years and have wisdom and expertise to share, I also have times when I'm challenged to hold onto regulation and find myself in moments of messiness. As you work through the exercises in this workbook, remember that we all start from the same place—a place of seeking safety and connection. We're all human and we're all on this journey together.

Each one of us encounters problems over the course of a day. Some are more easily managed than others, but no matter where an experience lands on the continuum of mild to traumatic, understanding how the nervous system works is the path to finding the way back to regulation. When the inner workings of our biology are a mystery to us, we feel as if we're at the mercy of unknown, unexplainable, and unpredictable experiences. Naturally this results in feelings of anxiety and distress, feelings familiar to many of us. But the beauty is that once you know how your nervous system works, you can work *with* it. You can track your journey out of dysregulation with a roadmap to find your way back to safety.

With a basic understanding of the ways the nervous system works, you can partner with your nervous system and begin to make sense of why you think and act in the ways you do. You can more easily navigate the ordinary, and sometimes extraordinary, experiences of daily living.

The Nervous System Workbook introduces you to your nervous system and shows you how to partner with it to bring a bit more safety, connection, and even joy to your life. You'll add new words to your vocabulary and explore some basic concepts, but you don't have to become a scientist. Befriending your nervous system is a gentle process of discovery and learning. Curiosity and a willingness to explore are all you need.

# How the Nervous System Works

The autonomic nervous system could also be called the *automatic* nervous system since it takes care of your body's basic housekeeping responsibilities, things that the body does seemingly effortlessly (e.g., breath, heart rate, digestion), without needing to pay attention to them. Imagine having to remind your heart to beat, your lungs to breathe, or your digestive system to do its job. All your attention would be focused on these basic life functions leaving no room for thinking about anything else. Instead, we can feel grateful that, despite our lack of awareness, we have this innate system that keeps everything working.

Maybe your nervous system has done a pretty good job so far so you're wondering why you need to learn more about it. Like many things in our lives, when we really start to understand how something works, and how it benefits us, we discover a new way of relating to it. As we take the mystery out of the way the nervous system works and begin to get to know it, we recognize the power of autonomic awareness in daily life to bring kindness, selfcompassion, ease, and even joy. Increased understanding presents us with new and hopeful opportunities, such as moving from irritation or frustration with what our nervous system is doing to having compassion and appreciation for its design.

It's a normal human experience to move through autonomic states in both small shifts and bigger ways many times a day. Consider the states you have already experienced today in moments of ease, small slightly charged moments, others that felt empty, or even more intense moments of fight, flight, or collapse. The common experience of moving in and out of states is not itself a barrier to well-being. It's only when you move out of safety and connection into a survival response and can't find your way back to a state of regulation that you suffer physically and psychologically. It's normal and expected to not feel regulated 24 hours a day and instead move in and out of different states. What you'll focus on in this workbook is how to become aware of where you are and *how to return to regulation*. Coming back to safety, learning to come home to yourself every day, is the skill this book offers.

As you notice what your nervous system is doing, you naturally become curious about what it is reacting to and trying to tell you about what it needs. When you learn to listen and speak the language of the nervous system, you can respond to what's happening in the moment in more intentional ways, ways that lead to safety and connection. I call this getting-to-know process "befriending your nervous system." Many of us are unaware of the important information being sent from our bodies to our brains through autonomic pathways. When you partner with your nervous system, rather than ignoring it, you can tune in and begin to nurture its well-being.

One way to think about the job of the nervous system is that it is always working on your behalf in service of your safety. It detects changes in your internal environment and monitors the safety of your external environment, regulates your heartbeat and breathing rate, and matches your energy level to the needs of the moment. In addition to managing your physical needs, the nervous system is also the place where your stories about yourself and the world begin. Unlike the saying "what happens in Vegas stays in Vegas," what happens in the nervous system does not stay in the nervous system. Instead, information about events occurring in the nervous system travel from the body's organs to the brain along an autonomic pathway. When the information arrives in the brain, the brain creates a story to make sense of what it's hearing and learning. I don't know about you, but my brain can make up some incredible and incredulous stories!

The wonderful thing about this system is that it can change. You have the power to shape new patterns, which is some of the work you'll be doing in this workbook. The three principles below provide us with a roadmap for how the nervous system works.

# **Organizing Principles**

 Autonomic Hierarchy: The three building blocks that work in sequence and come with preset pathways
Neuroception: The built-in surveillance system that is always watching for signs of safety and warns about danger ahead
Co-regulation: The way to safely connect with others, a necessary ingredient for well-being

## Autonomic Hierarchy: The Building Blocks of Experience

Through the process of evolution, the three building blocks of the nervous system came into being one after the other: dorsal vagal around 500 million years ago, sympathetic around 400 million years ago, and ventral vagal around 200 million years ago. As each new system emerged, it joined the older system rather than replacing it. This sequential order, called the autonomic hierarchy, is key to understanding how the nervous system anchors in regulation and reacts to challenges in daily living. Each of these building blocks works in a specific way, affecting your biology through connections inside the body and impacting your psychology by directing how you see, sense, and engage with the world around you.

#### Ventral Vagal

The ventral vagal building block, the newest of the three, provides a pathway to health and well-being and the place where life feels manageable. This building block allows you to connect and communicate with others, join groups, and be happy on your own. The common irritations of daily living don't feel so big and when your coffee spills or the commute is too slow, instead of getting angry or anxious, you're able to "go with the flow." To get a feel for this system, remember sitting and talking with a friend, think about walking in nature feeling connected to the earth, or, if you have a dog or cat, imagine them curled up beside you.

#### Sympathetic

Following the pattern of the hierarchy, when something happens that feels overwhelming, when too many things happen all at once, or when it seems like life is a series of never-ending challenges, you move down a step to the next building block, the action-taking sympathetic pathway. This is commonly known as the place of fight-and-flight. When your to-do list doesn't ever seem to get smaller, when there is never quite enough money to make ends meet, or when it feels like your partner is always distracted, you lose your sense of being safe in the present moment and being able to see a larger picture and you react either by attacking or escaping. To get a flavor of the mobilization of this system imagine a shark attacking or a fish darting to escape.

#### **Dorsal Vagal**

If you continue to feel trapped in a cycle of endless challenges with no way out and no way to manage, you follow the hierarchy down the final step to the first building block of the nervous system: the dorsal vagal feeling of collapse, shutdown, and disconnection. Here, the spilled coffee, the never-ending to-do list, and the partner who never seems to be present no longer matter. You begin to shut down and disconnect. You may still go through the motions but with no energy to care. You lose hope that anything will ever change. To get a sense of this part of the system, think about a turtle moving slowly and steadily through the world. When scared, the turtle immobilizes, disappears into its shell, and waits until it feels safe enough to peek out at the world again.

#### **Moving Between States**

We naturally travel between states, routinely moving out of ventral regulation into sympathetic or dorsal dysregulation and back again. Leaving regulation isn't the problem. In fact, the goal is not to stay in a state of regulation but rather to know where you are, recognize when you're moving out of regulation and being pulled into a survival response, and be able to return to regulation. The ability to flexibly move between states is a sign of well-being and resilience. It is when you are caught in dysregulation, unable to find your way back to regulation, that you feel distress. When you get pulled out of ventral safety and connection and get lost in a place of dysregulation, you move from flexibility to rigidity and feel the effects of a nervous system that is stuck in the intensity of sympathetic mobilization or dorsal shutdown.

When anchored in the regulating energy of the ventral vagal state, the autonomic nervous system is in balance, and you experience the sense of well-being that comes with a feeling of healthy homeostasis. In times of challenge, you can reflect (rather than react), collaborate, and communicate. Stop for a moment and think about a time when you felt regulated and solved a problem on your own or found a solution with someone else. If you're not successful in meeting and managing a challenge, you move out of regulation into sympathetic mobilization and the energy of fight-and-flight. Pause here and remember a time when you experienced that intensely activating energy and were driven to stay and argue or felt desperate to get away. Finally, if taking action doesn't resolve the challenge and you feel trapped, you move to dorsal vagal shutdown. Think about a time when you felt like giving up or going along without really being present or caring. And now, because of the way the nervous system was formed, one building block on top of another, to return to safety and regulation from the state of collapse, you need to travel through sympathetic mobilization without getting caught in a fight-and-flight response. A moment of safe mobilization can take many forms. It might start with a small body movement, a shared look with someone, or even a thought that feels like the beginning of a possibility. The essential element of this moment of mobilization is a return of energy that is not so big or intense that it becomes a cue of danger but rather is felt as a cue of safety that shows the way back to regulation. From this safe starting point, you can continue to feel energy returning and find your way back to ventral regulation.

# Neuroception: Your Internal Surveillance System

The second principle of Polyvagal Theory, the internal surveillance system, is defined by the wonderfully descriptive word *neuroception*. Stephen Porges created this word to illustrate how the nervous system (*neuro*) is aware of (*ception*) signs of safety and signals of danger. With a neuroception of safety, you move out into the world and into connection. A neuroception of danger brings a move into sympathetic fight-and-flight, while a neuroception of intense danger takes you into dorsal vagal collapse and shutdown.

Neuroception follows three streams of awareness: inside, outside, and between. **Inside listening** happens as neuroception attends to what's going on inside your body-to your heartbeat, breath rhythms, and muscle action-and inside your organs, especially those involved with your digestion. Outside listening begins in your immediate environment (where you are physically located) and then expands out into the larger world to include neighborhoods, nations, and the global community. The third stream of awareness, **listening between**, is the way your nervous system communicates with other systems one-on-one or with a group of people. These three streams of embodied listening are always working, micro-moment to micro-moment, below the level of your conscious awareness. Running in the background, neuroception brings the autonomic state changes that either invite you into connection with people, places, and experiences or move you away from connection into the protection of fight, flight, or shutdown.

Your stories, and how you think, feel, and act, begin with neuroception. And while you can't work directly with neuroception, you can work with your body's response to it. When you bring perception to neuroception, you bring an otherwise unconscious experience into awareness. You can work with your experience by taking the implicit experience of neuroception, explicitly noticing it, and turning your attention toward the state that has come alive. As you keep traveling the pathway of awareness, you connect with feelings, beliefs, behaviors, and finally the story that takes you through your days. When you learn to attend to neuroception, you can begin to shape your story in new ways.

# **Co-regulation: Wired for Connection**

In our evolutionary history, being a part of a group was essential for survival. There was strength in numbers. This leads us to the third principle of Polyvagal Theory—the need for finding safe connection with others in experiences of co-regulation. Coregulation, regulating with another, is necessary for surviving and thriving. You come into the world unable to fend for yourself and, for the first years of life, you need to be cared for by others. You are physically unable to regulate on your own and naturally turn toward the people around you to meet both physical and emotional survival needs. As you grow, these experiences of co-regulation offer a foundation to explore regulating on your own.

Even as you learn to self-regulate, the need for co-regulation continues. This is both an essential ingredient for well-being and a challenge to negotiate. In order to co-regulate, I have to feel safe with you, you have to feel safe with me, and we have to find a way to come into connection and regulate with each other. You turn to a friend to listen or look to a family member for help. You depend on certain people in your life to show up with a regulated system when you're in need. And although many of us may not have predictably safe, regulated people to connect with, and co-regulation isn't always possible, it is important to recognize that we have a built-in biological need for one another. While the world seems to be increasingly focused on self-regulation and independence, coregulation is the foundation for safely navigating daily living.

#### We carry the ongoing need to connect with others and every day we long for, and look for, opportunities to co-regulate.

It is through these three principles—hierarchy, neuroception, and co-regulation—that you have both a way to acknowledge the role that biology has in shaping how you move through the world and a guide to engaging with your biology in ways that bring about well-being.