

# The Vagus Nerve & Healing Trauma

## Part 2 Worksheet

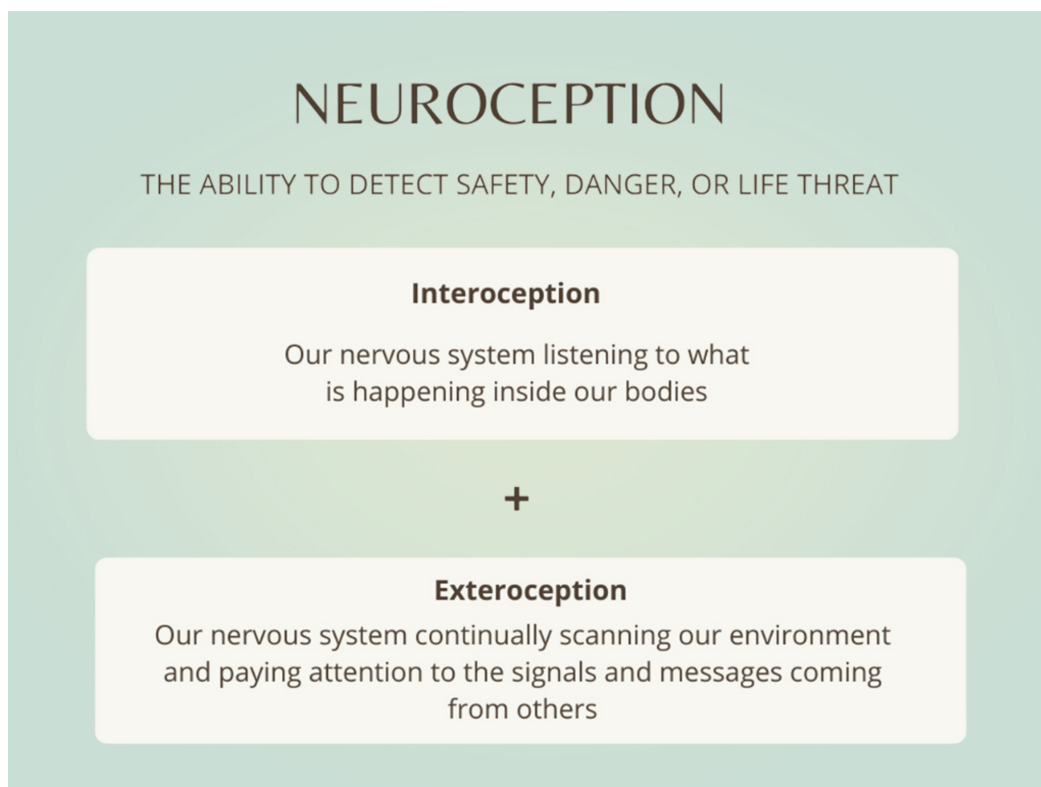


## Welcome to the Vagus Nerve & Healing Trauma

### 3-Part Video Training

#### Neuroception

In Part 2 of this series, we take a close look at the Polyvagal Theory. We began with the critical concept of “neuroception.” Neuroception is a subconscious process through which our nervous system detects and evaluates cues of safety, danger, or threat via interoception and exteroception.



Neuroception, unlike perception, operates on an instinctual level through our autonomic nervous system (ANS), including its sympathetic and parasympathetic branches and various sensory pathways. It helps us navigate social interactions and react appropriately to potential threats. Our nervous system continuously

scans the environment for safety cues, such as facial expressions and environmental conditions (exteroception).

In trauma, neuroception's function can be disrupted, leading to heightened sensitivity to danger signals. This hypersensitivity can result in hypervigilance and difficulty assessing safety. Trauma survivors may interpret neutral situations as threatening, leading to increased anxiety and challenges in feeling secure.

## Interoception

Interoception involves signals from internal organs like the lungs, gut, bladder, and kidneys to the brain. Much of this processing happens unconsciously, such as stabilizing blood sugar levels. However, it also includes conscious sensations like muscle tension, heart rate, and stomach feelings.

The brain uses these sensations to understand current emotions, affecting feelings like hunger, sickness, and excitement. Individuals with strong interoception can better recognize, name, and manage their emotions. This helps handle emotions like anger, sadness, and frustration in healthy ways, crucial for maintaining good relationships and mental well-being.

Those with trauma histories may struggle with interoception, feeling disconnected from their bodies and unaware of what's happening internally. Continuous trauma, like neglect or abuse, can increase the risk of ignoring body sensations. Interoception, a daily life sense, might be dulled by trauma, making it hard to recognize the feeling of being overwhelmed or needing rest. Enhancing interoception can improve physical and emotional health, aiding in identifying feelings and coping effectively.

## Polyvagal Theory

Polyvagal Theory highlights the importance of the autonomic nervous system, particularly the vagus nerve, in controlling our health and behaviour. It provides insight into how our nervous system reacts to various situations, including stress, danger, or safety.

According to the theory, our nervous system has three main response states, or "branches":



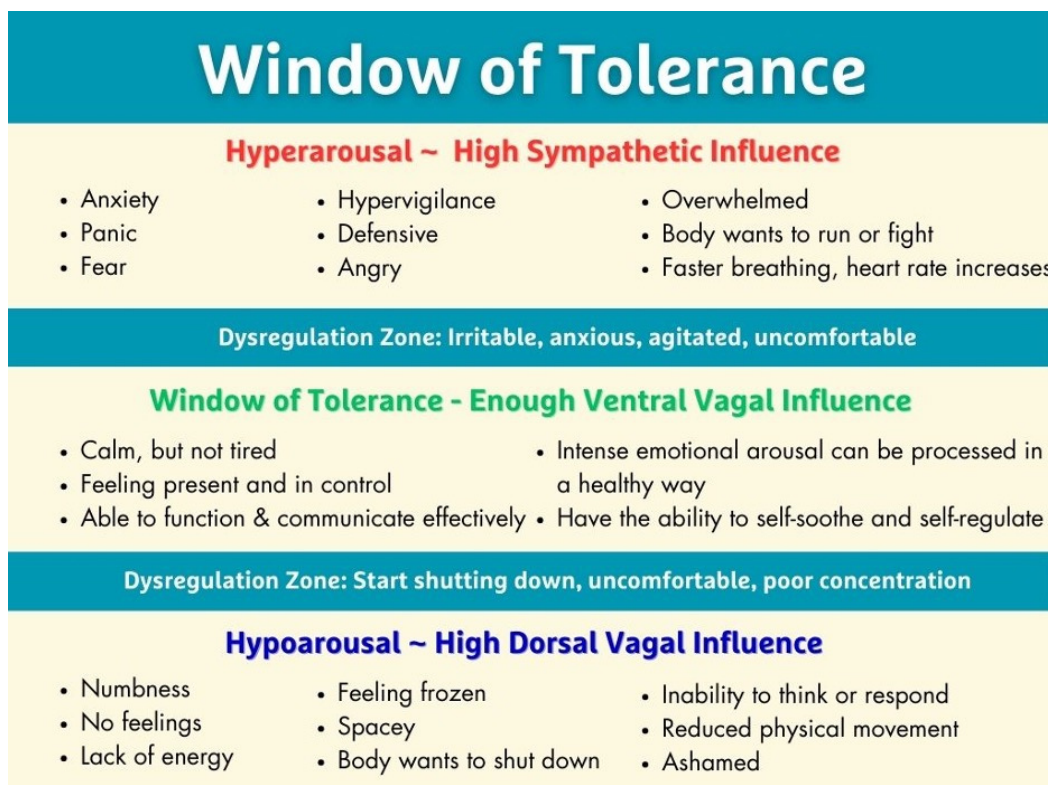
**Dorsal Vagal:** The oldest part of the vagal complex, left over from our pre-mammalian ancient vertebrate ancestors. A dominant high-tone dorsal vagus results in a collapse or shutdown state. A low-tone dorsal state supports resting and digestion.

**Sympathetic:** This part of the nervous system developed between the dorsal and ventral vagal complexes and supports mobilization by increasing blood flow and energy throughout the body.

**Ventral Vagal:** The newest part of the vagal complex. When ventral vagal is dominant, there is a feeling of safety and social engagement. We are relaxed and open to social interaction, which is communicated in our eyes, facial expressions, and tone of voice.

### Window of Tolerance

This video ends with an introduction to the Window of Tolerance model.



When we are within our window of tolerance, there is enough ventral vagal influence that we can be present in our experience, sense our body and feelings, and can self-regulate.

Dysregulation manifests when we begin to exceed our window of tolerance and move into hyperarousal or hypoarousal. When we move to the edges of our window of tolerance (into the “dysregulation zone”), our body's defences kick in, triggering symptoms like heightened agitation, feeling uncomfortable, poor concentration, or the urge to shut down. These symptoms mark the onset of the fight, flight, or freeze responses.

See you in the third video!

Be well,

Prema