

Safe and Sound Protocol & Polyvagal Theory

Safe & Sound Protocol

The Safe and Sound Protocol (SSP) is a sound sensitivity intervention for the autonomic nervous system (ANS). You will listen to filtered music over headphones for a specific number of consecutive days. The time/amount varies from person to person and is fluid based on the individual's response; each music session will not last longer than one hour.

Conditions the SSP Targets and Treats

- Anxiety
- Trauma
- Post-Traumatic Stress Disorder (PTSD)
- Depressed mood
- Mood dysregulation
- Misophonia (strong, adverse reaction to specific sounds)
- Sensory/Auditory Processing Disorder
- Emotional regulation difficulties
- Eating/digestive difficulties

Safe, Sound & Connected

The involuntary physiological mechanism allowing mammals to feel safe and connected is called the autonomic nervous system (ANS). The ANS is our "personal surveillance system." Its job is to make sure we survive (fight/flight/freeze) in times of danger and thrive (mate/rest/digest) in times of safety. The only goal of the ANS is detection of danger or safety as a means of survival, and it is understood that these actions occur below the surface of our awareness.

The Safe and Sound Protocol (SSP), developed by Dr. Stephen Porges, is an auditory, somatic (body-based) intervention, delivered as filtered music over headphones. Using the middle ear muscles as a point of entry, the SSP targets the ANS which is responsible for fight/flight/freeze as well as involuntary bodily functions such as blood pressure, rate of breathing, internal organ function and digestion. The filtered music targets the Vagus Nerve through the middle ear muscles, regulating the muscles to improve an individual's social communication by reducing hearing sensitivities as well as improving the ability of processing human speech for an enhanced social engagement system.

The Vagus Nerve

The SSP sound frequencies target and engage Cranial Nerves VII (Facial Nerve) and X (Vagus Nerve). The Vagus Nerve is the longest cranial nerve that travels between the brain stem and the digestive organs. It is noteworthy that the Vagus Nerve transmits information primarily from the body to the brain, so this is a largely unconscious process with our bodies doing the work without our intention or awareness. Originating in the brain stem, the Vagus Nerve travels upwards to the face, eyes and throat, and downwards through the lungs, heart and digestive system. The SSP targets the Vagus Nerve as a point of entry to help better regulate the entire system ANS.

When the Vagus Nerve is impaired

The ability to recruit the middle ear muscles to process sound can be impaired in fearful/stressful situations, during high fever or illness, due to aging and medications, or during times of psychological distress. The decrease in muscle tone enhances detection of low frequency sounds often associated with predators. However, this stress response makes it difficult to perceive and understand human speech. As a result, in stressful situations we may be unable to hear the human voice but are more cued and adapted to focusing on low frequency sounds that may accompany an intruder or a potential threat. This adaptation will put the body in a defensive response which is not conducive for a healthy quality of life.

Polyvagal Theory

Through his research, Dr. Porges studied and developed the Polyvagal Theory. Porges' Polyvagal Theory defines a hierarchy of how the ANS responds to bodily information via three pathways: first pathway is the Ventral Vagal (safe/social/mate/play), second pathway is the Sympathetic branch of the ANS (mobilized/fight/flight), and the third pathway is the Dorsal Vagal (immobilized/collapsed/play dead). These three pathways each have a characteristic pattern of response and through each of these pathways we react "in service of survival."

When we are operating in our Ventral Vagal state, we are relaxed and at ease, we feel safe and connected to others around us. We are operating in our social engagement system and our bodies in this state are functioning well. Our heart rate is regulated, our breath is full, we experience the faces of our companions and we can tune into socialization and conversations without distraction.

When we drop down the ladder to the second pathway, the Sympathetic branch of the ANS, we become mobilized because we sense that something is wrong, and we may have to either fight or flee in order to survive. This branch is found in the middle part of the spinal cord and represents the pathway that prepares us for action. It responds to cues of danger and triggers the release of adrenaline, which fuels the fight or flight response. In this state, our heart rate speeds up, our breath is short and shallow, and we scan our environment for signs of danger. Some of the daily living problems can be stomach problems, anxiety, panic attacks, anger, heart disease, sleep problems and pain in neck, shoulder and back.

When we are trapped and cannot escape to survive, we drop to the lowest pathway. The Dorsal Vagal pathway responds to cues of extreme, life-threatening danger; it is the pathway of last resort. The Dorsal Vagal response takes us out of connection, out of awareness, into dissociation, and we are in a protective state of collapse. This oldest pathway on the evolutionary timeline brings us to shut down and immobilization for means of survival. Some problems with being in a chronic state of Dorsal Vagal are dissociation, memory impairment, depression, isolation, chronic fatigue, fibromyalgia and type 2 diabetes.

Goals of Therapy

- Recognize the autonomic state.
- Respect the adaptive survival response.
- Regulate or co-regulate into a Ventral Vagal state.
- Re-story the scenario by understanding movements in your autonomic states.