Essential Oils to Boost the Brain & Heal the Body



BONUS CHAPTER

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PARASYMPATHETIC ACTIVATION STRATEGIES

25 powerful strategies to activate your parasympathetic nervous system

Start activating your parasympathetic nervous system to TURN ON your body's ability to heal!

Your vagus nerve serves as the "on/off" switch to activate your parasympathetic nervous system.

As you may know, your vagus nerve is a sensory nerve that starts at the base of the brain and travels down both sides of your neck through your stomach and intestines, enervating your heart and lungs, and connecting your throat, neck, ear and facial muscles.

Activating any of the organs enervated by your vagus nerve can help stimulate your vagus nerve to activate your parasympathetic nervous system; **these include**:

- **Brain**, which helps calm inflammation, control anxiety and relieve depression.
- **Tongue**, which helps to improve taste and saliva production, swallowing, and speech.
- Ears, which help to ease tinnitus.
- **Eyes**, which help the pupils shrink to make eye contact and promote social connection and safety.
- Larynx, which helps feed your lungs and diaphragm with oxygen.
- **Stomach**, which helps to stimulate stomach acid for healthy digestion.
- **Intestines**, which allow for nutrient absorption and trigger the muscle contractions (peristalsis) to allow food and waste to move through the digestive tract.
- **Pancreas**, which triggers the production and release of enzymes that aid in digestion.
- **Liver**, which triggers detoxification and supports blood sugar functions.
- Lungs, which allows your airways to expand and contract.
- **Gallbladder**, which triggers the release of bile that rids the body of toxins and breaks down fat (critical for most paleo and keto diets).

- **Heart**, which helps to regulate heart rate and blood pressure.
- **Spleen**, which inhibits inflammation by calming the release of pro-inflammatory cytokines (substances secreted by inflammatory cells that affect other cells).
- **Kidneys**, which release sodium, increase blood flow, and manage blood sugar.
- **Bladder**, which allows for bladder retention to prevent frequent urination.
- Reproductive organs and genitals, which support fertility and sexual arousal.
- **Immune system**, which regulates inflammation, switching off the production of proteins that fuel the inflammatory immune response.

The following practices engage these areas of the mind-body feedback loop to enhance and stimulate healthy functioning of your vagus nerve to activate your parasympathetic state.

1. COLD EXPOSURE

Cold exposure activates your parasympathetic nervous system. Sudden cold exposure causes blood vessels to dilate. Research found that the resulting increase in blood flow to your body and brain warms the tissue, improves nerve conduction and turns on your parasympathetic relaxation response. Additional research confirmed that when the body adjusts to cold temperatures, your fight-or-flight (sympathetic) system declines and your rest-and-digest (parasympathetic) system increases. In this study, temperatures of 50°F (10°C) were considered cold.

<u>Research</u> specifically finds that "cold stimulation at the lateral neck region would result in higher heart rate variability" which is the gage for parasympathetic tone.

Cold water is one of the simplest ways to stimulate your vagus nerve and improve your vagal tone. Research has found that exposure to cold water may bring observable results. You can splash cold water on your face and neck or hold a zip lock bag full of ice against your face for 30-seconds. You can also drink cold fluids, take a 30-second cold shower or take a warm shower and finish with 30-60 seconds of cold water at the end.

2. HUMMING, SINGING AND CHANTING

Your vagus nerve passes through your vocal cords and inner ear. The vibrations of sound, including singing or humming, can stimulate your vagus nerve by engaging it through your throat, your diaphragm (as you breathe) and even through your heart.

One <u>study</u> found that singing increases Heart Rate Variability (HRV), which serves as an important measure of your parasympathetic tone (or ability to activate the parasympathetic state). Interestingly, the study found that different sound activation techniques (think humming, chanting, slow songs like church hymns versus upbeat pop songs) all increase HRV in slightly different ways. They hypothesized that singing initiates the work of a vagal pump, sending relaxing waves through your body. Additionally, singing at "the top of your lungs" might work the muscles in the back of the throat to activate the vagus. Singing in unison, which is often done in churches and synagogues, also increased HRV and vagus function in this study.

3. BREATHING

Deep and slow breathing stimulates your vagus nerve and activates the parasympathetic nervous system. In fact, breath is one of the fastest ways to influence our nervous system, especially deep breathing that activates both the lungs and the diaphragm, especially when you breathe deeply from your diaphragm. This means when you breathe in, your belly should expand or go outward. When you breathe out your belly should cave in. The more your belly expands and the more it caves in, the deeper you're breathing.

Here is my favorite breathing technique:

- 1. Inhale for a count of four.
- 2. Hold for a count of four.
- **3.** Exhale for a count of six to eight.
- 4. Wait for a count of four.
- 5. Repeat until your hands are back on the controls.

Slower, deep breathing improves oxygen saturation, lowers blood pressure, and will put your body into parasympathetic mode. The slow expansion of your lungs signals to your heart to slow down, which sends a feeling of calm throughout your entire nervous system. Your vagus nerve connects all of this signaling and releases acetylcholine, a calming chemical you can give yourself a shot of any time by doing relaxation techniques.

In one <u>study</u>, slow breathing exercises improved autonomic functions in healthy participants. Fast breathing didn't. That's because fast breathing makes your body think you're running from predators. That sets off your body's alarm bells and activates a stress response.

4. GUT HEALTH

Your vagus nerve connects your gut and brain, known as the gut-brain axis, and sends both physical and biochemical signals in both directions. Supporting gut health and the healthy balance of gut bacteria (also known as gut microbiome) helps support the parasympathetic nervous system.

Your enteric nervous system, which governs digestive function and works in tandem with your parasympathetic nervous system, is comprised of your "microbiome", or the bacteria that resides within your intestinal tract. Ideally there is a balance of good bacteria to keep opportunistic pathogens and bacteria in check. A healthy diet that includes a variety of plants and vegetables, along with probiotics, has been shown to support healthy function of the parasympathetic nervous system.

For example, one <u>study</u> found that feeding mice a probiotic reduced the amount of stress hormone in their blood. However, when their vagus nerve was cut, the probiotic had no effect. Healthy microbiome in your gut nervous system connects to your brain through your vagus nerve. <u>Research</u> has demonstrated that this connection helps curb anxiety and improve your mood, as many of the mood boosting hormones, like serotonin and GABA (gamma-aminobutyric acid), your chief inhibitory neurotransmitter. "This can be the reason why the gut microbiome seems to affect mood. Low levels of GABA are linked to depression and mood disorders," according to the study.

In another animal <u>study</u>, mice supplemented with the probiotic Lactobacillus rhamnosus experienced various positive changes in GABA receptors that were mediated by the vagus nerve.

5. EXERCISE AND PHYSICAL MOVEMENT

Exercise helps to activate the parasympathetic state. Any kind of physical movement enhances healthy oxygen and blood flow, stimulating the vagus nerve which travels through both the lungs and the heart.

<u>Research</u> has correlated parasympathetic activation with exercise. The study explored how the vagus nerve stimulates digestive function during exercise and how lack of vagus nerve function compromised this gastric motility during exercise.

Movement and exercise also help you release and discharge stress. In fact, animals naturally shake to release tension after a life-threatening event.

In his book, *Why Zebras Don't Get Ulcers*, neurobiologist Robert Sapolsky explains that zebras and other animals dissipate stress by physically shaking to release stress hormones once a danger has passed. Moving your body helps release and discharge these stress hormones and shift out of flight-or-fight mode and into the parasympathetic state.

6. YOGA

My favorite form of exercise to activate your parasympathetic nervous system is yoga. Yoga incorporates poses and breathing exercises that connect the back of the throat to the breath and movement, stimulating the vagus nerve and turning on the parasympathetic system.

For example, Ujjayi breathing, where both inhalation and exhalation are done through the nose, helps activate the parasympathetic nervous system. Twisted poses stimulate the organs of digestion and elimination that are enervated by your vagus nerve. Yoga also activates your pelvic floor which is connected to your vagus nerve. Similarly, heart opening yoga exercises can help to stimulate the vagus nerve traveling through the heart. Finally, when you end your yoga practice by chanting "OM", the vibration stimulates your vagus nerve.

Research suggests a link between yoga and increased vagus nerve and parasympathetic system activity. For example, one <u>study</u> found that yogic breathing can stimulate the vagus nerve and increase parasympathetic tone.

Pranayama or alternate-nostril breathing can also help balance the left and right branch of your vagus nerve. Start by sitting up straight with a lifted spine. Using your thumb and pinky finger, close off one nostril with your thumb and inhale/exhale through the open nostril for one complete breath. Then use your pinky finger to close off the other nostril and inhale/exhale through the open nostril for another complete breath. Alternate left and right nostrils for a total of 9 complete breaths.

7. SUNLIGHT

Sunlight is the primary source of energy on earth and energy derived from sunlight powers everything on earth, including the healthy function of your body. Exposing your skin to sunlight for at least 20-30 minutes at a time, ideally first thing in the morning helps to activate your parasympathetic nervous system.

"Just as human cells need nutrients from food, light is also is also a necessary nutrient to our cells to function well," according to <u>Ari Whitten</u> in Red Light Therapy. As Whitten notes, the human body needs light to be healthy, not just to support Vitamin D production, but also help regulate healthy natural rhythms including the sleep wake rhythm known as your circadian rhythm and your stress and relaxation rhythm supported by the parasympathetic nervous system.

Whitten notes that photobiomodulation (PBM) or the changing biology with light, helps restore your body to homeostasis. Your nervous system, along with your blood and lymph, help circulate the healing light energy through your body to modulate, regulate and stimulate healthy function in your cells and tissues.

8. GROUNDING

Grounding, a technique that helps you connect to the healing energy of nature and the Earth, helps balance heart rate variability and activate the parasympathetic nervous system.

A <u>study</u> published in the journal of cardiology found that being in nature even for a few hours has a calming effect on the mind and body – lowering blood pressure, heart rate, muscle tension, and the levels of stress hormones like cortisol in the bloodstream. With the reduction in cortisol, the body automatically returns to the parasympathetic state.

Grounding, also called Earthing, is easy to do. You can connect to the Earth by walking barefoot on grass, on the beach or even on ceramic tile. Yoga facilitates grounding as does meditation and the consumption of plants grown in the Earth, either as food or essential oils derived from plants.

Spending time in nature allows you to connect to the natural energies of the Earth. Like the Earth, your body is comprised of water, minerals and electrical currents. Your body's matrix of energetically charged biochemical circuits are coordinated through your nervous system.

Connecting to the electromagnetic energy from the Earth influences your central nervous system to help turn on your parasympathetic state. More specifically, when you ground or connect with the earth, negatively-charged electrons from the surface of the Earth transfer into your body where they help neutralize positively-charged free radicals that can contribute to inflammation and other health concerns.

9. ESSENTIAL OILS

Essential oils are the natural, highly concentrated essences extracted from specific herbs in their living state for their healing capabilities. Essential oils can be derived from plants, shrubs, flowers, grasses, fruits, bushes, seeds, roots, bark and trees.

Your vagus nerve can be stimulated with natural, non-invasive essential oils applied over specific acupuncture and reflex points.

Essential oils have both olfactory (smell) and transdermal (topical application) qualities. For example, inhaling essential oils such as <u>lavender</u> or <u>bergamot</u> has been shown to improve heart rate variability, a key indicator for vagal tone.

Your skin is relatively permeable to fat-soluble substances like essential oils, making topical, or transdermal, application extremely effective. Topical application also bypasses the stomach and liver which can chemically alter the therapeutic effects of drugs and essential oils.

Taking this one step further, you can use specific oils on specific acupuncture points and reflexology points to target specific organ systems or regions of the brain, like the vagus nerve. In fact, research shows that acupuncture points are effective at stimulating the vagus nerve and should be considered as an alternative to vagal nerve stimulating devices.

In fact, <u>research</u> shows that acupuncture points located in the vagus nerve distribution behind the ear and around the neck are effective at stimulating the vagus nerve and should be considered as an alternative to vagal nerve stimulating devices.

Research on "Neuroanatomic and clinical correspondences: acupuncture and vagus nerve stimulation" found that acupuncture points produce clinical benefits through stimulation of the vagus nerve and/or its branches in the head and neck region that are anatomically proximate to vagus nerve pathways there, where the VNS electrode is surgically implanted.

More specifically, a neural anatomy study showed the Vagus Nerve is most accessible for stimulation via the ear canal and the lower half of the back ear. In his book "Activate Your Vagus Nerve", Dr. Navaz Habib explains how your vagus nerve can be stimulated via skin sensation around the ear. The vagus nerve originates in the brainstem and travels down through the neck, just behind the ears on the mastoid bone, where it is most accessible to the surface. Topically applying stimulatory essential oils, like a combination of clover and lime, behind the earlobe is an incredibly easy, natural, non-invasive remedy for accessing and stimulating the vagus nerve through the skin.

While we don't recommend applying essential oils directly in the ear canal, we have found that applying a combination of stimulatory essential oils behind the ear canal, on the mastoid bone where the vagus nerve is most accessible to the surface of the skin, effectively stimulates the vagus nerve.

10. LAUGH AND SMILE

Laughter truly is the best medicine as it helps to activate the parasympathetic nervous system. Laughter creates movement in your face, chest, diaphragm, and stomach, naturally engaging your parasympathetic nervous system to change your breathe, heart rate, and blood pressure.

Research <u>studies</u> suggest that laughter affects both the respiratory and cardiovascular systems, activating the parasympathetic nervous system. It also increases HRV (heart rate variability) and releases the "happy hormone" endorphins throughout your body which help relieve pain and reduce stress. Laughter can, in fact, be a side effect of vagus nerve stimulation performed on children with epilepsy, according to <u>research</u>.

Similarly, smiling helps to boost your mental state and activate your parasympathetic nervous system. Remember that the vagus nerve extends into the muscles of the face. You can increase vagal tone by relaxing the muscles of your face and then slightly turning up your lips. This practice helps to engage what Dr. Stephen Porges calls the "social nervous system," branch of the vagus nerve. Forcing a smile can make challenging conversations or tasks more bearable.

11. SOCIAL CONNECTION

Your parasympathetic state can activate and be activated though social connection. It's important to note that your vagus nerve physically connects to your mouth and eyes, helping to both trigger and respond to safety cues from others, like smiling and eye contact.

<u>In other words</u>, our social connection helps us feel safe and turn on the parasympathetic state. Dr. Stephen Porges, author of The Polyvagal Theory explains that "Through the history of human-

ity, when humans were threatened, they mitigate the threat response through social interaction, through being hugged, through being with a trusted individual."

Porges's Polyvagal theory identifies the vagus nerve as the safety gauge for your nervous system and the key driver of your emotional regulation, social connection and fear response. This social connection, be it in person, over the phone, or even via texts or social media, helps activate your parasympathetic nervous system and support health and longevity. In fact, <u>research</u> finds that social relationships help extend longevity among centenarians, or those who live beyond 100 years of age.

12. EMOTIONAL FREEDOM TECHNIQUE (EFT)

Emotional Freedom Technique, also known as tapping, is a proven easy and accessible approach to instantly calm your nervous system and activate your parasympathetic nervous system.

By using your fingers to gently tap on specific energy meridians on your head and torso, you help to release stored energy that is blocking the healthy flow of information. Stagnant physical and emotional energy correlates with dysfunction or dysregulation in your nervous system.

This balances activity between the sympathetic and parasympathetic regions of your brain, producing "a neutral emotional state." More specifically, EFT literally turns off your sympathetic "fight or flight" response and helps to shift your body into a state of relaxation, where it can heal. Research has found that EFT significantly lowers levels of the stress hormone cortisol.

A study published in the Journal of Nervous and Mental Disease found that Emotional Freedom Techniques (EFT) lowered the cortisol levels significantly more than other interventions tested. In a randomized controlled trial, 83 subjects were randomly assigned to a single hour-long session of EFT, talk therapy, or rest. Their cortisol levels were measured via a saliva test before and after the session, as cortisol levels are a strong marker for stress levels. The normal rate of cortisol decline is 14% over an hour period. EFT calmed cortisol levels by 24% while other therapies showed only the standard 14% cortisol reduction. The EFT group also exhibited lower levels of psychological symptoms, including anxiety, depression, and other, as measured by the Symptom Assessment-45 (SA-45), a standard psychological assessment tool.

EFT is the easiest and fastest way to activate your parasympathetic nervous system. You can do it anytime and anywhere. My friend Amy Stark shares specific details on how to start EFT <u>HERE</u>, including written directions, graphics and videos.

13. COLOR

Colors are actually your visual perception of light and each color carries a different energetic frequency that can be used to activate or sedate your parasympathetic nervous system.

Research has identified how colors link to your nervous system through the retinas in your eyes. Where visual information is translated into nerve impulses that your brain can interpret. In the early 19th century, American surgeon, Dr. E. Babbitt found <u>treatment</u> with colored light could achieve significant healing results through its effect on the human energy field, the light receptive autonomic nerve fibers in the skin and via the nerves that connect the eye directly with the limbic system.

Albert Einstein noted that "Everything in life is vibration" and the human body works in harmony with this energy. Light is energy, and color is physical representation of this energy and can be used to influence our physical bodies through our nervous systems. Clinicians have found that there is a specific wavelength, frequency, and energy for each color which generate electrical impulses and magnetic currents, or fields of energy that activate the biochemical and hormonal processes in the human body.

For example, clinician Dr. Dietrich Klinghardt found that the color red, along with other colors in the red spectrum, including orange and yellow, is energetic and activates the sympathetic nervous system while colors in the blue spectrum, from blue/green to blue and violet, normally activate the parasympathetic nervous system and tend to have a sedating, digestion-activating, sleep-inducing effect. Klinghardt found that green mediates between both the sympathetic and parasympathetic nervous systems.

It is believed that the pathway through which light is converted into electrical signals that we perceive as color plays a role in activating the parasympathetic nervous system. Light travels through your retina, through your optic nerve into the hypothalamus of your brain. Different colors carry different frequencies and are believed to travel through different parts of you hypothalamus, thus activating different responses from your nervous system. More specifically, The Physiology and Psychology of Color found that the color Red simulates the posterior hypothalamus and therefore the sympathetic nervous system. Blue stimulates the anterior hypothalamus, which contains the main regulating part of the parasympathetic nervous system.

Color can be integrated by eating a colorful variety of foods, wearing specific color clothing or wearing colored glasses.

14. SLEEPING ON YOUR RIGHT SIDE

Restful sleep helps you relax, reset and activate your parasympathetic nervous system. Research measuring heart rate variability, a measure of parasympathetic tone, during sleep found that parasympathetic activity increased during sleeping.

Additional <u>research</u> suggests that laying on your right side amplifies heart rate variability and parasympathetic activation more than other recumbent positions. For example, lying on the back led to the lowest vagus activation in one study. This might be one reason why some doctors tell pregnant women to not lay on the right side during pregnancy, as to not put too much pressure on the vagus nerve.

15. SELF-COMPASSION

Self-compassion and the practice of self-generating positive emotions can activate your parasympathetic nervous system. Remember that your brain cannot differentiate between anticipatory thought driven stress and actual physical danger. When you focus on fears and worries, you activate your sympathetic "fight or flight" nervous system. When you shift your focus to positive feelings like love, compassion, and goodwill toward yourself and others, you calm your stress response and activate your parasympathetic nervous system.

<u>Research</u> validates that increased positive emotions produced increases in heart rate variability and vagal tone, which both measure the activation of your parasympathetic nervous system.

In the study, participants were randomly assigned to an intervention group that self-generated positive emotions via loving-kindness meditation or to a waiting-list control group.

To evaluate the impact of self-compassion, the researchers measured heart rate variability and vagal tone, an indicator of how your vagus nerve is functioning. They found that higher vagal tone correlates with improved emotional regulation and the ability to experience more positive emotions. This worked both ways, with increased positive thoughts and emotions improving vagal tone.

16. FASTING

Intermittent fasting, an eating pattern that cycles between periods of fasting and eating, can stimulate your vagus nerve and activate the parasympathetic state. Intermittent fasting can be as simple as extending your fasting window. For example, you can start by limiting your eating window to 8-12 hours.

Fasting, or giving your digestive system a break, allows your body to time to process waste and repair cellular function, which can also help lower inflammation and calm insulin sensitivity. According to one theory, the vagus nerve mediates a reduction in metabolism upon fasting. Specifically, the vagus detects a decline in blood glucose and decreases mechanical and chemical stimuli from the gut. This seems to increase vagus impulses from the liver to the brain (NTS), which slows the metabolic rate, according to animal <u>research</u>.

Additional <u>research</u> found that food deprivation (fasting) decreased gut distention, and possibly motility, which then stimulates the function of the vagus nerve. The study suggests that fasting affects your nervous system, and particularly your vagus nerve's, process of encoding stimuli known as nociception.

Another <u>research</u> study found that caloric restriction and intermittent fasting alter heart rate variability, benefit cardiovascular health and promote parasympathetic tone in rats.

17. EPSOM SALT BATHS

Epsom salt baths offer an easy, accessible way to activate your parasympathetic nervous system.

Epsom salt is a naturally occurring mineral compound of magnesium and sulfate that helps enhance the detoxification capabilities of the body, improve circulation, calm and sedates the nervous system, relax muscles and reduce swelling and inflammation. Studies have shown that magnesium helps calm your <u>nervous system</u>, <u>alleviate depression</u> and <u>calm anxiety</u>. Magnesium is easily absorbed through the skin and into your blood stream, especially when delivered through a warm bath.

Water is the optimal carrier for magnesium as it both absorbs and magnifies its healing potential. One teaspoon of water can actually absorb 4 teaspoons of nutrients. This is one of the reasons that bone broth is so healing.

A warm bath with magnesium sulfate from Epsom salt and sodium bicarbonate from baking soda, which helps balance your electrical charge or pH, can create a similar healing experience.

Here's why: The combination of water, heat and minerals opens skin pores, allowing them to absorb the minerals and flush out harmful toxins through the sweat glands. Layering in specific essential oils, like Layender or Rose can further enhance the grounding experience.

My favorite Healing Bath Recipe:

- 2 cups Epsom salt
- 1 cup Baking Soda
- 3 7 drops of Rose or Lavender Essential Oil
- * *Mix Essential Oils with Epsom Salt before adding to bath water for optimal absorption

18. BINDERS

Environmental toxins trigger your immune system and can keep your nervous system on high alert. Conversely, successfully eliminating environmental toxins – including pesticides, chemicals, heavy metals, and mold, well as by-products of internal imbalances, like viruses or infections – helps calm the nervous system and activates the parasympathetic state.

Binders play a critical role in ensuring that toxins are eliminated. Binders, or solid, insoluble particles that pass through the gut unabsorbed, attract and bind toxins to facilitate their passage out of the body through the gastrointestinal tract. In other words, binders ensure that the toxins actually leave your body. Binders literally 'bind' to toxins to help move them out of the body. They work by attracting or trapping toxins, and transport them out of the body.

When you detoxify, you mobilize toxins from the cells which are carried by the lymph fluid through the bloodstream to the liver. When the liver processes toxins, they get excreted in the bile, which is a digestive fluid released by the gallbladder that flows into the small intestines. Ideally, the toxins move through the intestines and leave the body in the feces. But if the toxins are not bound to anything, most of them will get reabsorbed in the gut. Your gut lining has many veins and nerves that can pick up toxins and re-circulate them back into the body, known as enterohepatic recirculation.

Binders can be used to bind to the toxins and shuttle them out of the digestive tract, preventing reabsorption.

Using binders to remove toxins through the bowels greatly relieves the stress placed on the kidneys. Because of the kidneys' ability to reabsorb and accumulate toxic heavy metals, they are uniquely vulnerable to these elements. With binders, the toxins are excreted through the feces instead of being absorbed by the bloodstream where the kidneys are required to filter them out. This helps alleviate the strain on the microtubules and filtering mechanisms in the kidneys. Binders also lessen the load on the bladder as toxins can irritate and inflame the walls of your bladder as they sit and wait to be excreted through urination.

Grab my favorite binder **HERE** for a special price!

19. GARGLING, GAGGING AND CHEWING

The vagus nerve activates the muscles in the back of the throat that allow you to gargle and control your gag reflex. Vigorously gargling water at the back of the throat for at least 2 minutes triggers these muscles to contract. If you can, have the water go far enough into the back of your mouth that you start to tear. Tearing is a sign that your choking-prevention reflexes are working, and that the vagus nerve is activated.

Aim to activate your gag reflex 3 times per day. Tongue depressors, a toothbrush or even your finger can also be used to stimulate the gag reflex by pressing on the back of your tongue or your soft palate until you gag which activates your parasympathetic response.

Chewing activates the vagus nerve as well. It is important to chewing your food thoroughly to both stimulate the vagus nerve and break down your food for healthy digestion.

20. PRACTICE GRATITUDE

Practicing gratitude is one of the fastest and easiest ways to activate your parasympathetic nervous system. Here's why – when you are feeling grateful, and focusing on positive things, your mind shifts out of a state of worry and fear where anticipatory stress over potential future scenarios no longer activate your sympathetic nervous system or trigger the release of stress.

A gratitude practice can be as simple as starting your day by focusing on 1 – 3 things that you are grateful for, which can be as simple as having the ability to move and breathe. In her 2016 commencement address for UC Berkeley, Facebook COO Sheryl Sandberg noted that "People who take the time to list things they are grateful for are happier and healthier. It turns out that counting your blessings can actually increase your blessings"

Research back this up, noting that "In an experimental comparison, those who kept gratitude journals on a weekly basis exercised more regularly, reported fewer physical symptoms, felt better about their lives as a whole, and were more optimistic about the upcoming week compared to those who recorded hassles or neutral life events". Similarly, "a daily gratitude intervention resulted in higher reported levels of the positive states of alertness, enthusiasm, determination, attentiveness and energy"

Sandberg shared a strategy of writing down three moments of joy before going to bed each night so that she goes to bed thinking of something cheerful.

21. SAFETY CUES

A key to activating your parasympathetic nervous system is allowing your body to feel safe. Your nervous system is wired to respond to thought-driven stress triggers along with actual physical stressors. It also responds to thought driven safety cues, like imagining your favorite safe physical environment. It can be a place you have actually visited, like a favorite place in nature or vacation spot or anywhere that you can visualize that inspires feelings of safety and calm. You can even build an imaginary house in your safe spot, complete with comfortable furniture and the smells of your favorite foods cooking in the kitchen. It's helpful to integrate as many sensory cues as you can – including the sights, smells, sounds as well as how the environment makes you feel.

Allowing your mind to mentally travel to this safe place whenever you feel overwhelmed or fearful helps to activate your parasympathetic nervous system and calm fear and anxiety. The more you practice this visualization, the easier it will be to initiate the "safe place" without much effort. It's there when you feel fearful or overwhelmed.

22. USE YOUR TONGUE TO PAINT THE ROOF OF YOUR MOUTH

Your vagus nerve is responsible for controlling many of the muscles in the mouth, including the majority of the muscles of the soft palate and the tongue. Stimulating the muscles of your tongue, like using your tongue as a paintbrush to stimulate the palatal muscles on the roof of your mouth therefore engages the vagus nerve and activates the parasympathetic nervous system.

Interestingly, damage to your vagus nerve can contribute to trouble moving your tongue as intended when trying to speak. The more you can engage your tongue, the more you can stimulate the vagus nerve.

23. MASSAGE & ACUPUNCTURE THERAPIES

Massaging certain areas of your body, such as your neck and your foot, helps activate your parasympathetic nervous system.

Research suggests that massaging certain areas like the carotid sinus (located on your neck) can stimulate the vagus nerve. You can also find a place a couple inches out from your collarbones. Use the back of the fingernails to "rake" the nerve downward as this is one location where the vagus nerve is most accessible through the skin. You can also stimulate the neck by doing head rolls. Bring your chin to chest, then roll your head in a complete circle 3-5 times. Reverse the direction of the circle to stimulate your vagus nerve.

Another 2012 research <u>study</u> suggests that pressure massage helped activate the vagus nerve of premature infants as demonstrated by weight gain in infants whose guts were stimulated which is thought to be largely mediated by vagus nerve activation

Reflexology foot massages have also been shown to increase vagal activity and heart rate variability while lowering heart rate and blood pressure, according to a <u>study</u> published in Alternative Therapies in Health and Medicine.

Acupuncture has also been shown to activate your parasympathetic nervous system, especially when focused on auricular acupuncture points or acupuncture points in the ear. Research found that auricular acupuncture supports vagal regulation which helps activate your parasympathetic nervous system. Another study credits some of the benefits of acupuncture near the head and neck to the proximity and stimulation of the vagus nerve (and hence the autonomic nervous system) stimulation with producing the clinical effects of the acupoints. The study notes that "having anatomic access to the vagus nerve and parasympathetic chain that permits electrical stimulation of those nerves in clinical practice, acupuncture may offer a less costly and safe alternative" for vagus nerve stimulation.

24. CHIROPACTIC ADJUSTMENTS

A structural misalignment in your spine can block vagus nerve signaling. If you are out of alignment and your spine becomes altered in its positioning or ability to move freely, a chiropractic adjustment can help align the spine and nervous system to activate your parasympathetic nervous system.

<u>Research</u> has demonstrated that chiropractic adjustments boost the function of the vagus nerve by impacting heart rate variability, which is what the vagus nerve controls.

Another <u>study</u> showed that long term chiropractic care (52 weeks) resulted in sustained improvements of heart rate variability. An improvement in the vagus nerve activity plays a major role in regulating parasympathetic nervous system function.

25. TUNING FORKS

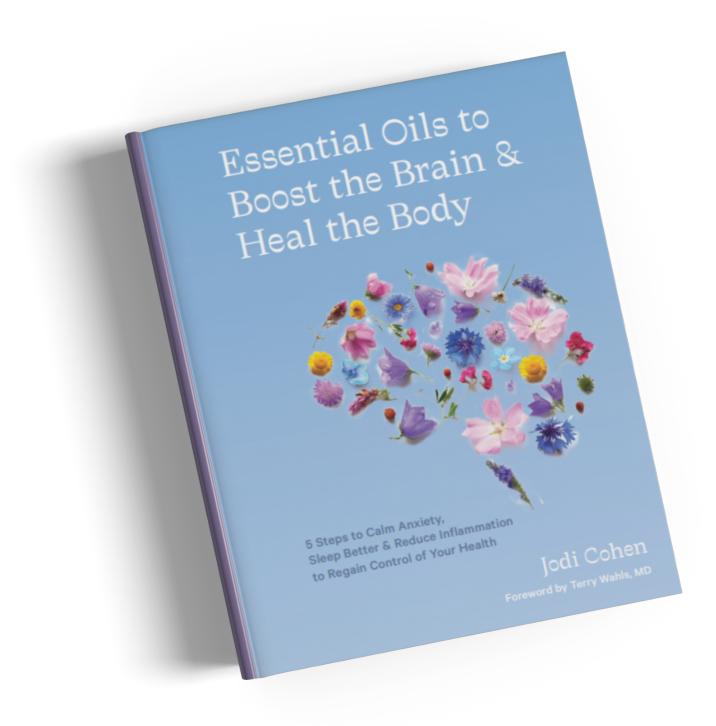
Your vagus nerve passes in close proximity to the inner ear and sound vibrations from a tuning fork can stimulate your vagus nerve and activate your parasympathetic nervous system. While your vagus nerve does not impact your hearing, it does connect with the posterior wall of the external auditory canal, the lower part of the eardrum's membrane and in the middle ear. This proximity to the vagus nerve helps explain the impact of sound vibrations on rest of the body.

This is one of the reasons why the use of Sound Therapy instruments such as tuning forks and Tibetan singing bowls can be so instantly calming and relaxing, helping to activate the calming parasympathetic state.

Specifically, long and sustained sounds tend to be soothing and relaxing (parasympathetic response) whereas sharp and abrupt sounds tend to trigger alertness and alarm (sympathetic response).

Another interesting factor is that auditory stimulation of the vagus nerve can lead to reduced activity of the limbic system, also known as the emotional control center in your brain.

My favorite tuning fork is the Sonic Slider, a custom-made weighted tuning fork with a frequency of the Schumann Resonance- the electromagnetic resonance of the Earth - which is (on average) 7.83 Hz. $7.83 \times 12 = 93.96$ Hz. This <u>video</u> explains more. Save 10% on your purchase <u>here</u>: **Use coupon code: PARASYMPATHETIC10**



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