



Maryland Integrative Health 5 Natural Vagus Nerve Stimulation Activities

Did you know that nerve fibers existing throughout your stomach and intestines are referred to as your enteric brain? That is because 90% of those nerve fibers connect back up to the brain through the vagus nerve. A key player in the body-mind connection, the vagus nerve is behind your gut instinct, the knot in your throat, and the sparkle in your smile. You can think of the vagus nerve as a two-way radio communication system helping you stay in touch with your sensations and emotions. What happens in vagus definitely doesn't stay in vagus.

The vagus nerve is essential for keeping your immune system in-check. There is a close connection between chronic stress, immune functioning, and inflammation. In brief, short-term activation of your sympathetic nervous system releases of cortisol and helps keep your immune system at healthy levels. Long-term stress suppresses immunity. However, chronic traumatic stress has an inverse reaction, leaving your immune system unchecked which leads to inflammation in the body.

Activation of the vagus nerve keeps your immune system in check and releases an assortment of hormones and enzymes such as acetylcholine and oxytocin. This results in reductions in inflammation, improvements in memory, and feelings of relaxation. Vagus nerve stimulation has also been shown to reduce allergic reactions and tension headaches.

Regulation of the nervous system relies upon the goldilocks principle. We recognize we are "too hot" when we feel keyed up, anxious, irritable, or panicky. We are too "too cold" when we are shut down, depressed, or feeling hopeless. Sometimes we alternate between the two which is like driving with one foot on the gas and one on the brakes. Practices that regulate the vagus nerve are aimed towards either relaxing or re-energizing ourselves depending upon what is needed to feel "just right."

5 Vagus Nerve Stimulation Exercises

You can indirectly stimulate your vagus nerve to relieve keyed up or shut down nervous system states. Remember, your vagus nerve passes through your belly, diaphragm, lungs, throat, inner ear, and facial muscles. Therefore, practices that change or control the actions of these areas of the body can influence the functioning of the vagus nerve through the mind-body feedback loop. You can try these from the comfort of your living room:

Humming: The vagus nerve passes through by the vocal cords and the inner ear and the vibrations of humming is a free and easy way to influence your nervous system states.

Simply pick your favorite tune and you're ready to go. Or if yoga fits your lifestyle you can "OM" your way to wellbeing. Notice and enjoy the sensations in your chest, throat, and head.

Conscious Breathing: The breath is one of the fastest ways to influence our nervous system states. The aim is to move the belly and diaphragm with the breath and to slow down your breathing. Vagus nerve stimulation occurs when the breath is slowed from our typical 10-14 breaths per minute to 5-7 breaths per minute. You can achieve this by counting the inhalation to 5, hold briefly, and exhale to a count of 10. You can further stimulate the vagus nerve by creating a slight constriction at the back of the throat and creating an "hhh". Breathe like you are trying to fog a mirror to create the feeling in the throat but inhale and exhale out of the nose sound (in yoga this is called Ujjayi pranayam).

Valsalva Maneuver: This complicated name refers to a process of attempting to exhale against a closed airway. You can do this by keeping your mouth closed and pinching your nose while trying to breathe out. This increases the pressure inside of your chest cavity increasing vagal tone.

Diving Reflex: Considered a first rate vagus nerve stimulation technique, splashing cold water on your face from your lips to your scalp line stimulates the diving reflex. You can also achieve the nervous system cooling effects by placing ice cubes in a ziplock and holding the ice against your face and a brief hold of your breath. The diving reflex slows your heart rate, increases blood flow to your brain, reduces anger and relaxes your body. An additional technique that stimulates the diving reflex is to submerge your tongue in liquid. Drink and hold lukewarm water in your mouth sensing the water with your tongue.

Connection: Reach out for relationship. Healthy connections to others, whether this occurs in person, over the phone, or even via texts or social media in our modern world, can initiate regulation of our body and mind. Relationships can evoke the spirit of playfulness and creativity or can relax us into a trusting bond into another. Perhaps you engage in a lighthearted texting exchange with a friend. If you are in proximity with another you can try "hugging until relaxed." The instructions are to simply "stand on your own two feet, place your arms around your partner, focus on yourself, and to quiet yourself down, way down."