

Vagus

The vagus is the tenth cranial nerve, originating in the brain stem and traveling through the face, neck, lungs, heart, diaphragm and abdomen, including the stomach, spleen, intestines, colon, liver, and kidneys.

The vagus nerve governs the ‘rest and digest’ or parasympathetic part of the autonomic nervous system., the body’s unconscious control system. It counters the ‘fight or flight’ responses of the sympathetic nervous system. It controls heart rate, breathing, digestion, urination, immune system, taste and touch perception, muscles involved in speech and swallowing, and mood regulation.

Symptoms of vagal nerve dysfunction are abdominal pain, GERD, difficulty swallowing or speaking, hoarseness, nausea, vomiting, loss of appetite or weight loss, dizziness or fainting, cardiac arrhythmia, and blood pressure changes. Disorders include:

Gastroparesis when the stomach is slow to or fails to empty

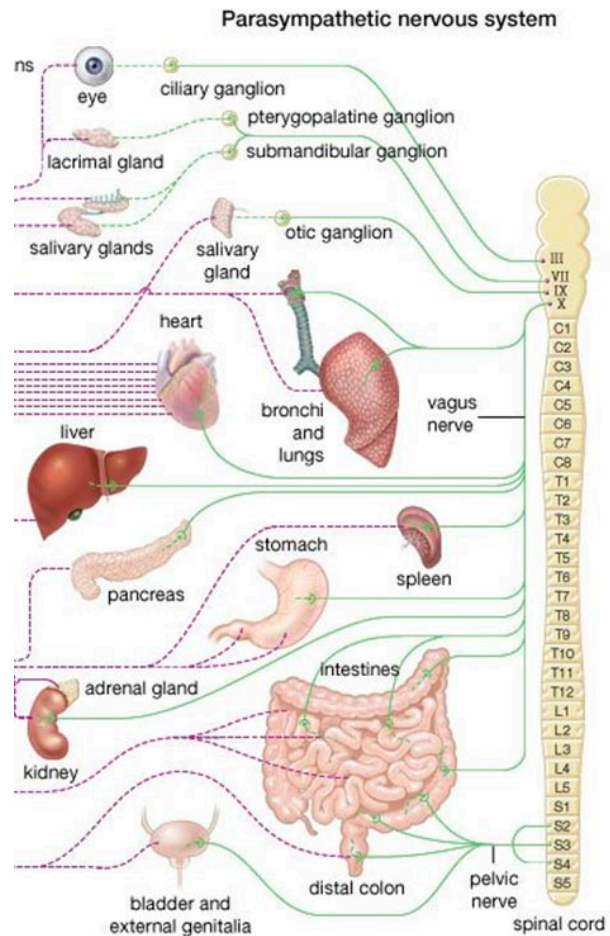
Vasovagal syncope when blood pressure drops suddenly causing dizziness or fainting.

Causes of vagal malfunction include diabetes, viral infections, abdominal surgery, scleroderma, which is an autoimmune disease that can affect any of the organs.

Merogenomics on the Vagus. Very technical, but he’s so excited about the vagus.

<https://youtu.be/J4q-dS1-Sks?si=k-C-x8TvpWq1djsU>

An MD that thinks that everyone should know about the vagus nerve. This video is interesting because mainstream is just learning about it, specifically the cholinergic anti-inflammatory pathway, since 2002. Discoveries have started a new branch of medicine, bioelectronic medicine. Specializes in electromodulation. Already an FDA approved device for vagal nerve modulation (Nurosym).



Clinical Study of Vagal Stimulation on Long Covid.

<https://youtu.be/rwiQsCKWbKY?si=aEYCfoPU3uapvyzy>

10 days for 35 min/day. 100% of participants were improved.

Few side effects, most common symptom was temporary weakness.

Vagus nerve + dysautonomia dysfunction of the vagus nerve after Covid or spike protein from 'shot'. Study based on autopsies/biopsies of Covid patients. Vagus influences clotting as well as other symptoms of Covid.

https://youtu.be/8teO8SgLJU8?si=a4AHjy-JtP8G_smy

JJ Medicine on gastroparesis:

https://youtu.be/Kp_ZKHmpOMw?si=cdjrynSvRHcahuvk

When the stomach doesn't empty properly without physical blockage, essentially paralysis of the stomach. This can be caused by a suppressed vagus nerve.

Gastroparesis Symptoms:

Chronic nausea and vomiting of undigested food.

Feel full quickly and for long time after eating.

Abdominal pain in the upper central portion of the abdomen. Sometimes a vague feeling and it worsens with eating.

Heartburn - food sitting in stomach too long and gastric contents enter the esophagus.

Bloating, belching

Reduced appetite and weight loss.

Vasovagal syncope <https://youtu.be/cPR9kpixPoE?si=ToEWdwAVMbCnI7or>

The most common cause of fainting when the vagus malfunction due to an emotional response to something like the sight of blood, standing for a long time, or overheating. The vagus is suddenly activated and it causes a sudden loss of consciousness due to a sudden drop in heart rate and blood pressure.

Left and right diaphragm are different. The diaphragm needs to be in shape for the vagus nerve to function properly. When we breathe, we tend to use the left side more than the right and then lean to the right which further compresses the right lung. If one side is compressed, the other side doesn't function properly. Full diaphragm breathing is necessary for the vagus nerve to function properly.

Breathing wrong can cause the neck to come forward. This affects the vagus nerve. Sitting inhibits full breathing. It's important to move, fully exhaling and inhaling with the diaphragm. This is a long explanation and the breathing exercise starts at minute 14:55.

<https://youtu.be/nKdtMV-RWww>

An interview with Professor Steven Rochlitz discussing the link between hiatal hernia syndrome, vagus nerve imbalance, and many chronic health conditions including type 2 diabetes, pericarditis, anxiety, high blood pressure, digestive disorders, neurological disorders, asthma, POTS (postural tachycardia) syndrome, sleep apnea, and porphyria. He mentions several methods of relaxing the vagus and moving the stomach back down through the hole in the diaphragm: ice packs on diaphragm, tapping points on wrist, trigger points that relax the heart and lungs, drinking water then jumping, manipulation called a ‘pull down’, electrical stimulation, chanting. Sleeping flat is not good for this syndrome, use a wedge. Feeling hungry right after you eat is a sign of dysfunction of vagus - could be porphyria or hypoglycemia. Stay away from inflammatory foods night shades, carrageenan. Foods that we crave are those we are most allergic too. Do not overeat. Learn energy testing and balancing - reflexology. He has many books on porphyria, hiatal hernia and the vagus. Porphyria is a liver disorder in which the production of heme is not complete and the precursor porphyrins build up in the body. <https://youtu.be/8eO23tKTmMU>

Dr Berg on the Vagus Nerve:

<https://youtu.be/8dtPN4xrY4U>

How to Trigger the Vagus Nerve (Parasympathetic NS - Rest and Digest)

1. Slow Breathing - 4-5/minute
2. Long Walks
3. Potassium/Magnesium/Sodium
4. Acupressure
5. Electrical Stimulation of Vagus for:
 1. Migraines
 2. Headaches
 3. Fibromyalgia
 4. Inflammation
 5. Crohn's
 6. Depression
 7. Epilepsy

How to stimulate the Vagus Nerve (Rest, Repair and Digest):

Rife Frequencies to Stimulate the Vagus. If you don't have a Rife Machine, you might benefit from listening to these frequencies on YouTube:

<https://youtu.be/mq5rvQzhn3U?si=oq9MmOm7V5qkuEkW>

Copper Cape (Alta Uses): Copper reduces inflammation

https://www.amazon.com/gp/product/B09MRJRX5V/ref=ppx_yo_dt_b_asin_title_o07_s01?ie=UTF8&psc=1

Deepak Chopra on Vagus Stimulation: Meditation, smiling, time in nature, etc:

<https://youtu.be/pHurINrDNV0?si=N1ai5eJl2uQhnL3Y>

3 ways from yoga practice to stimulate vagus and calm down.

<https://youtu.be/2rJvWLN8rtE?si=5N-4o5yXEizeVJfB>

3 ways to test vagal tone. The nose test - put finger under nose and breathe out. More air from right (sympathetic) or left (parasympathetic dominance) nostril?

- Stimulate vagus by **low hum** that vibrates the back of throat.
- Deep and slow diaphragmatic breathing. At top of inhale, lock chin and pinch nose while holding breath for 4 seconds.
- Gently pinch and massage ear - one finger behind lower ear, one inside lower ear. Massage is a circular motion - 5 in each direction.

10 minute vagus nerve stimulation (Alta uses this one):

<https://youtu.be/zUx5kLFyx-M?si=1oPTnMWshcxwd2L>

- While twisting at belly. Warm up. Loosen muscles in the abdomen.
- With **relaxed** abdomen, place hands on belly button, dominant hand first, and press in with thumb 30 times, then 30 times with 2 fingers pointed into abdomen, then 30 times with 2 fingers on each hands pointed in. Feel changes.
- Deep breaths.

Very calming vagal stimulation. Test neck turns to R & L, then lean back and turn just your eyes to right and hold 30 sec, until you naturally yawn, sigh or swallow. Do the same to the left and retest neck movements:

https://youtu.be/HZSBFDJ8GY4?si=B_nALWVdcFbFqbOd

An exercise that helps us 'feel safe' and allow the vagus to work. Relaxation and gentle massage of the acupuncture points of the inner eyebrow, temple, top of the cheekbone just below the eye, and the outer and inner ear:

https://youtu.be/1Sec_i-QxB4?si=PWACRKtxEhVanWmV

Devices that stimulate the vagus nerve.

Nurosym by Parasym - \$799 - 30 day returns - electrical stimulation worn around the ear and controlled with a remote. Discount through metrogenomics (above).

<https://nurosym.com/products/nurosym>

Sensate \$300 (with easy returns) - sound vibrations worn around the neck, rest on chest. The vibrations synchronize with music from an app (extra) through your own headphones:

<https://www.getsensate.com/products/sensate-2?variant=40503515283545>

Apollo Neuro \$350 includes the app. This is a band worn around the wrist or ankle. <https://apolloneuro.com/products/apollo-wearable?variant=42351893872837>

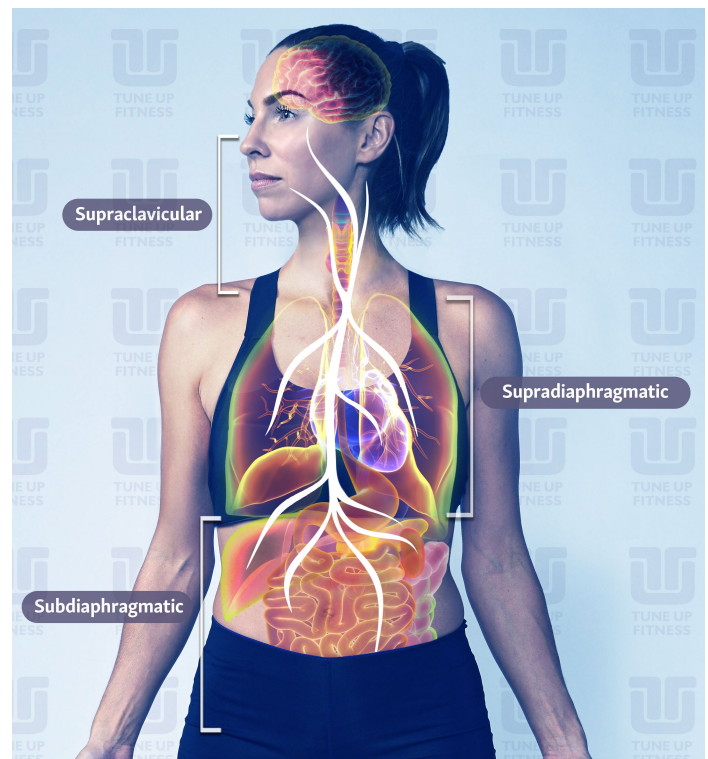
Using TENS for vagal stimulation. Here's an interesting 2021 study that compared the effects of sham, right and left shoulder stimulation on heart rate and heart rate variability (HRV), which is an indicator of vagal tone. It also protects against heart failure by increasing ejection fraction.

<https://www.nature.com/articles/s41598-021-98690-6>

This is a 2016 study of the HRV (vagal) effects of TENS stimulation of the left or right ear at either 10 or 60 min intervals. The 60 min stimulation of the right ear in women, but not men, increased HRV significantly.

[https://www.autonomicneuroscience.com/article/S1566-0702\(16\)30264-8/fulltext](https://www.autonomicneuroscience.com/article/S1566-0702(16)30264-8/fulltext)

Bottom line of these studies is that the TENS can be used to stimulate the vagus and that 60 minutes sessions are more effective and that the right side is more effective for heart issues. It slows heart rate and improves ejection fraction of the ventricles. The placement of the TENS can be on the right ear, or more easily on the right of the spine in the neck area.



Liz: Polyvagal theory is related to psychology. The dorsal branch goes along the back and ventral branch goes down the front. The dorsal branch is overactive from past trauma or PTSD and causes freezing in terror situations. They are helpless and disconnected.

The ventral branch is associated with connection and safety. Stimulate this branch to compensate for past trauma. Rapid eye movement desensitization is good for PTSD.

Dr Porges studies this in trauma. Early trauma affects how vagus nerve functions throughout life. He explains polyvagal theory and talks about how to deal with it in trauma survivors.:

<https://youtu.be/ec3AUMDjtKQ?si=K7qasEMGSn3wIH0F>

At the Trauma Super Conference 2023:

<https://youtu.be/ccKfoKZAwvM?si=RAKuZUiOOEsRBU5X>

Jeanne: Math anxiety in her students. They have trouble learning math when triggered by past anxiety. She uses EFT tapping to clear the anxiety. EMDR (Eye movement desensitization) is similar.

Liz: Her HVAC has mold growth. She had a PCO Air Scrubber installed into the air handling unit. It puts out H₂O₂ out through the ventilation to take out the mold and other pollutants. She feels much better.

Nancy: Going to physical therapy for the truck accident. Previously in good health, but then ended up in bed. New PT had her cross legs both ways and found she was leaning to the right. He said to put something (a couple of magazines) under the left sit bone. It straightened out her shoulders. Also a lift in the shoe. You can use felt, but not craft felt (has mercury). **First exercise** - learn to breath slowly from the diaphragm with the abdomen. She practiced all week. Part of the trauma is not breathing between losing her mother and the truck accident. Everything was locked and stiff. **Another exercise** - square dance open up the hips. Go around in a box step to the left, then the right. PT also moved the lymph through the right side.

Maryetta Put your hands on chest and belly. The chest shouldn't move.

Dee has a TENS unit. Has an old neck injury on the left from a rear end collision. PT put her on traction, which threw out her back. Severe arthritis on the left side and midthoracic pain. Has fibromyalgia.

Jennifer - Qigong is the only exercise that energizes her. She also has fibromyalgia. Master Lu has a website and online programs. This has helped her in many ways. Her digestion was helped. Requires a daily practice, not sporadically. temworld.org. and grandmasternanlu.com

Dragon's Way is the practice she does. Jennifer now added his eye exercises. He offers seasonal herbal supplements. She is going to an acupuncturist, Mary Fatimah Weening at the Present Safe Acupuncture in Unionville. She studied with Master Lu.

Her attitude is so different. The universe unconditionally loves us. Sometimes she was tense and didn't realize it. Dee and Nancy also find they are tense and not breathing without knowing it. Found benefits beyond the Qigong.

Dee has a TCM medicine clinic about a half hour away.

Liz uses TCM on her horse.

Nancy takes **Andrographis by Standard Process** - an adaptogen. Ingredients: Andrographis, Echinacea angustifolia root and Holy Basil provide a unique range of phytochemicals.

Jeanne: Fluid in ear causing dizziness. Still has 2 mercury fillings. Connie suggests Make a mouthwash with cilantro until you can get them removed.