Burning Mouth Expert explains how toning the Vagus Nerve is the next best thing you can do today! Transcript

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Introduction and Vagus Nerve Overview

Hi everyone. We're gonna get started here in just a minute. I just wanted to get set up a little bit early to be sure that I had everything set-up properly.

And I think I do. Thanks to those of you that are already on. Today's topic is the vagus nerve. So I have a lot of things to tell you about the Vagus nerve and how it connects in with Burning Mouth Syndrome.

So we'll get started here in just a minute. My clock says it's 11.59 and so we will wait till exactly noon and then get it started. Great, well it is noon, and I'm ready to get start talking about the vagus nerve.

The vagous nerve has been a buzzword for a while now, lots of people are talking about the vagus nerve, and I think it's really a good thing. And why is that?

The vagous nerve is really important to our health and our modern lifestyle, our stresses, or technological existence, all impact the Vegas nerve and not in a Good way.

So we need to do something to counteract that. I'm gonna give you some background about the nervous system, some back round about Vegas nerve and how it impacts our health generally.

And then I wanna give information on the Vegas Nerve and what it has to do with burning mouth syndrome and other chronic pain conditions. So our nervous system is divided into two halves.

One is called the somatic nervous and soma refers to body. And the Somatic Nervous System is our voluntary action. So I want to wave hello, and that is my Somic Nerve System, innervating my hand and my arm and waving.

Nervous System Basics: Sympathetic vs Parasympathetic

The other part of our nervous system is called the autonomic nervous. And you can remember that because autonomically kind of sounds like automatic and it's the part.

Of our system that happens unbeknownst to us automatically going on all the time. It's not part like a thought process. Like I'm going to move my hand and wave to you.

Its happening all of the. Time and that autonomical or automatic activity. is further subdivided into two parts. One is called the sympathetic nervous system.

And it is the part of the nervous that reacts when we're in danger, when were stressed. It is a life saving development in evolution because the things that happen when our sympathetic nervous system gets activated are life-saving.

So if you are about to be eaten by a wild animal out on the savanna or in the forest, there are some things have to happen. Number one is your heart needs to start beating more quickly because What's going to happen when you're in danger?

You're going run like heck or climb up a tree or crawl into a cave. So you need blood circulating to your muscles so that you can be very active. You need to blood going into your brain so you think about what to do and how to get out of danger.

And this sympathetic nervous system pours out hormones, cortisol is the main one that activates this process along with neurotransmitters or chemicals called adrenaline or epinephrine is another name for it and noradrenaline or norepinephrin.

And that whole cycle of chemical and physical activity is life saving for us. What happened in prehistoric times is we would be under terrible threat and in danger and get out of danger pretty quickly.

Either we got eaten by the wild animal, so it was like all over for us anyway, or we go to safety and we're like, whew, okay, I can take a deep breath now and my physiology will revert to my normal, chill, in control, not stressed physiology.

And so that's what happened in prehistoric times, but that is not happening in modern times. And, so what happens in the modern time is that we get stressed and we are stressed all day long.

We're stressed at work, we're stress on our commute, We are stress when we go home. we have to take care of children, partners, parents, friends, and so our stress response goes on sometimes indefinitely with very little break.

How many times are you stressed for hours on end and do you ever take a break and go, whew, let me take some deep breaths. Let me calm my physiology down from this high level stress response.

So that's our sympathetic nervous system and it really is in modern times in overdrive a lot of the time unless we do things to distinctly counteract it and that's part of what I want to tell you at the end because it's so important for recovery from chronic illness from dealing with pain from GI problems and we'll get into that more later.

The other part your nervous system is the parasympathetic nervous. So the sympathetic nervous is sometimes called the fight or flight part the nervous and the parasympathetic nervous system is called the rest and digest part of the nervous.

And the Rest and Digest is also the reproductive part. When we're on high alert and our organs shut down, basically, we are not in baby making mode. We are in pure survival mode, so rest, and I just, our hormones work well.

Our reproductive function works well, We socialize with people and that's one of the highest orders of function of The Parasympathetic Nervous System that has developed in humans is our ability to socialized through vocalizing and facial expressions.

So a big part of Paras sympathetic nervous system is reading people's expressions and tone of voice to tell you Is this a safe situation or is this an unsafe situation?

And our parasympathetic nervous system, those antennae are out all the time. You may not very well, may be aware of it, but when you get into a situation and go, I don't know, this is like kind of uncomfortable.

I think I want to leave. Those antenna are probably coming from your parasympathyic nervous telling you that something is not completely safe for you and so you really want to listen to those, we call them intuitions, but in fact really may be part of your physiology in a way that you just haven't been aware of.

So the parasympathetic nervous system, the rest and digest, what happens under fight-or-flight circumstances is your intestine basically shuts down, a lot of essential functions shut down.

The blood needs to be going elsewhere. It needs to go to your muscles, it needs go your brain. And so it gets shuttled away from your digestive tract and your digestion tract for a while stops functioning.

How the Vagus Nerve Supports Digestion and Gut-Brain Health

Under Rest and Digest, there's plenty of blood flow to your intestines. The muscles of your intestine are working well to move food along and move things down.

And you eat healthy food and you have a bowel movement a couple of times a day. It's soft, meaning everything has been flowing down really well. That's the digest part of Rest & Digests.

The vagus nerve is really important as part of that parasympathetic rest and digest part-of-things. It is a cranial nerve. That means it starts up in the brain.

And the word vagas, like a vagrant, means wanderer. The vagus nerve, it's a really long nerve that starts in in brain stem, goes all through your neck, your chest, and your abdomen.

innervating organs all along the way. 80% and it's a two way street. So there are messages from your organs to your brain and messages back from you brain to all of the various organs.

What are the organs? They're your lungs regulating breathing. It's your heart regulating the speed of your heartbeat. it's your stomach, it your intestine, its your bladder.

All of these are innervated by the vagus nerve. And the two-way street is actually very much weighted toward information going from these organs to your brain.

80% of what goes on in the Vegas nerve is information from this organs going back to you brain, 20%of the vegas nerve, is the brain going to organs and what your has to say to govern what happens.

There is a huge connection between your brain and your gut. heard about this, the gut brain connection. There's something called the enteric nervous system.

So our digestive tract has nerves all around it. And it's sometimes called The Second Brain because it is involved in so many different things. Our enterric nervous is responsible for 30 different neurotransmitters or nerve chemicals for hormones like ghrelin that tell us when we're hungry and when were satisfied.

and peptides as well. So the enteric nervous system also interacts with the brain and with a vagus nerve. And the vagous nerve is responsible for a lot of what goes on in the intestine, from how much stomach acid you're making.

Are you making enough enzymes to break down your food? Are making you enough stomach acids to absorb B12, iron, folate, breakdown proteins, and are there enough enzymes?

That's under control of the vagus nerve. The vagous nerve governs the squeezing of your intestines. So if you have poor, what we call motility, which means the motion or the squeezing of intestinal muscle and the walls of intestine that move food that we take in constantly down through our system for absorption, breaking down, getting nutrients, and then finally coming out as waste products in the bowel movement.

That motility is governed by the vagus nerve. If your vagous nerve is not functioning well, it can be a contributor to constipation. It can a contribute to poor digestion.

It can be a contributor to poor nutrient absorption. B12 and folate are important for functions of your nerve and your brain and energy. And what happens with aging is that the vagus nerve loses its potency.

So it's really important to get a good program going when we're younger to keep our vagous nerve functioning well so that we can continue to have good vagal nerve function doing things that keeps our vagus nerve functioning well into old age.

A lot of things that we attribute to old-age, like stomach upset, constipation, are due to poor function of the vagis nerve. And there are things we can do to keep it functioning adequately, and I'll tell you about them later.

The gut-brain connection is really important for our immunity and for endocrine function. 90% of our neurotransmitters like serotonin and dopamine and GABA, gamma amino butyric acid are made in the colon.

So the gut microbiome, the bacteria that are in our colon are very, very important to our moods, our energy, and our risk for chronic illness. And it is all involved with the function of the vagus nerve in a very complicated dance.

Some of the things that have been shown to be problems due to poor vagal tone are irritable bowel syndrome, inflammatory bowel disease, which means things like Crohn's and ulcerative colitis, depression, post-traumatic stress disorder.

These are all part of vagus, gut, brain, interconnection. There are things that affect the vagus nerve in terms of nutrition. So probiotics can be a good thing for your vagal function.

Gluten may be bad thing. Anti-oxidants good for vaginal function, antibiotics not so good. psychological and neurological consequences of an unhealthy vagus nerve contributed to by some of the other things that we do in life.

And it's one of reasons why we really try in functional medicine, if you understand the functioning of gut and how important it is to your mental and physical health, you will be very reluctant to use antibiotics unless it absolutely essential and you have no other choice.

So, and it's been found that there are probiotics that will help vagal function and produce things like increased GABA, which is a very calming brain chemical, gamma-aminobutyric acid.

And it actually, probiotic can increase GAB in the fear center of the brain called the amygdala. this can actually help to reduce depression. So we're understanding a lot more about probiotics, gut function, good bacteria, moods, pain, overall health, chronic disease, and how it is tied in with the vagus nerve.

The question is, how do you know if you might have low vagal tone? If you're super stressed on a chronic basis, you probably have a low-vagal tones. If you've had adverse childhood experiences and there's actually a scoring sheet called the ACE score, stands for ACE, Adverse Childhood Experiences, and it's a 10 question questionnaire asking things like, were you abused as a child?

Did you witness abuse between your parents? did you have a parent that went to jail? and so forth for 10 questions. And it turns out that people who answer yes to four or more, and particularly people answer to six or four, have a definitely increased risk of chronic illness.

Everything from diabetes, cardiovascular disease, cancer, Alzheimer's, autoimmune, all types of chronical illnesses. So what happens in childhood, actually gets that inflammatory cascade started and may continue well into adulthood.

Adverse childhood experiences may set you up for low vagal tone. If you have chronic fatigue, if you mood disorders like depression and anxiety, PTSD, post-traumatic stress disorder, you very likely have low-vagal-tone.

Signs of Low Vagal Tone and Related Health Conditions

hypertension, autoimmune disorders, and what do I mean by that? Things like lupus, Sjogrens, rheumatoid arthritis, multiple sclerosis is an auto immune disorder.

And auto-immune disorder happen when our body, which is set up to fight intruders and does it well, goes awry and starts fighting our own tissues. and there are reasons for that and some of the reasons involve the vagus and they definitely involve gut health.

Gut disorders like I mentioned, irritable bowel syndrome, inflammatory bowel disease like colitis and Crohn's disease and SIBO or small intestinal bacterial overgrowth and this occurs because bacteria which should only be in

your large intestine and so how your gut goes is there's your esophagus, which goes to your stomach, goes your small intestine, then goes into your large intestine.

And the small intestines is really an area for further breakdown of food. The addition of enzymes, the addition bile to break down food into smaller and smaller particles.

Then the large intestines has bacteria which actually metabolizes those food products. produces nutrients that we absorb, waste products that get rid of.

The small intestine should not have any bacteria in it if it's healthy. And what happens if that gut wall isn't squeezing, that tube isn' squeezing like it should, bacteria from the large intestine reflux up to the small intestine.

Food starts getting broken down by bacteria much sooner than it should and those bacteria produce gases. So one of the signs of small intestinal bacterial overgrowth is bloating right as you're eating or shortly after you eat.

Lots of bloatting, belching and discomfort. And one of the reasons that people may have small intestinal bacterial overgrowth is poor vagal tone, so that the muscles are not squeezing all of food products down, down down like they should.

And there's kind of stagnation and the allowance of bacteria from the large intestine to enter the small intestine. Asthma can be a sign of low vaginal tone.

ADHD, Attention Deficit Hyperactivity Disorder, some of the neurodegenerative disorders like Alzheimer's and Parkinson's, and even migraine headaches.

So what are the things that we can do and how does the vagus impact it? So like I said, the vagus is involved in digestion, everything from how your esophagus swallows, how you're stomach pushes food through the enzymes, that acid through to the small intestine, and the function of your liver, which makes bile, function your pancreas, produces insulin and enzymes.

your heart rate, your respiratory rate. Things like coughing, sneezing, swallowing, even throwing up. These are under vagal influence. And so what do we do if we think that we have poor vaginal tone?

Meditation will increase vagual tone. Yoga.

Ways to Improve Vagal Tone

and there is a particular yoga breathing exercise called Sudarshan Kriya Yoga that involves breathing and has been shown to alleviate depression and cognition and improve bowel function.

There are exercises and Dr. Rosenberg, Stanley Rosenburg wrote a book about the vagus. He is craniosacral worker who over many years of working with people doing body work, hands-on bodywork, found exercises that proved to be useful to increase vagal tone.

And he has an excellent book which shows you some really simple exercises to, number one, evaluate your vagial tone and to treat poor vaginal tone, positive self-talk.

So one of the things that happens with pain is that we tend to get negative and negativity, fear and anxiety amplify pain. So things we can do to reduce that such as positive self-talk, a gratitude journal, focusing on the thing that you are grateful for that are going well in your life.

telling yourself that you are not in a dangerous place because our bodies keep functioning as if we're in danger. And so there's a wonderful workbook called the Pain Management Workbook by Dr.

Rachel Zofniss. There are some really simple exercises in there, writing exercises to reassure yourself, that

although you might be having pain, you're not endangered.

you're in a safe place and doing those exercises lessens the fear and anxiety contribution to pain that amplifies pain. So there are some very simple exercises.

There is a phone app called curable health that also takes you through some of these exercises, both gratitude exercises positive self-talk telling your primitive brain because it's your primative brain that's always thinking you are in danger.

talking to your primitive brain and reassuring your primitive brain that you're not in danger. So it can let go of some of those high alert pain amplifying signals that worsen pain.

And lastly, social connections. I mentioned to you that the vagus nerve is responsible for interpreting facial expressions, creating facial expression.

creating and interpreting tones of voice. So getting social connections where you feel safe actually helps your vagus nerve. And what all of this has to do with burning mouth syndrome is that contributors to neuropathic pain, number one, come from the colon and from bacteria in the column and affecting those bacteria and the neurotransmitters or chemicals that the bacteria make can make a difference in the degree of your pain.

Lessening the fear and anxiety contribution to pain because you may not know it. We talked about it on one of these Instagram live before, but I'll just refresh your memory or maybe you haven't heard it before.

But pain signals go from wherever the pain has happened. You know, you've cut your hand. It goes up to your brain. It gets localized to tell your brain, oh yeah, it's the left hand and it is the palm of the right hand, and hurts like heck.

Burning Mouth Syndrome, Course Offer, and Q&A

And then it goes through the emotional center of your mind, which goes, Oh my gosh, there is something sharp around here and we need to get away from it.

Then it comes back down and completes the circuit. What happens with neuropathic pain is there is no imminent danger. There is not sharp object, but your brain keeps reinterpreting and re-interpreting the pain as if it did.

And so one of the things that we need to try to do to break the painful cycle is to reduce that fear and high alert that happens when we have pain, when have chronic pain.

And there is a lot of information. We have a course for burning mouth syndrome sufferers called Help for Burning Mouth. And in that course, we have lots of references and resources for people to explore, to try to reduce their burning-mouth pain.

Everything from the role of hormones in pain, the roll of neurotransmitters in the role of your brain in pain and lots of tips on what to do to reduce burning mouth pain.

I want to encourage you to enroll for the course. For the next week we have a special going that will give you a hundred dollars off of the price of course there's a Special Code July 4th special is the code and we'll put it in the show notes and the special is good for the next week until July 8th.

So I hope you'll take advantage of it. Join us in the course. The course is a 10 module series of lessons about what burning mouth is, what you can do about burning mouse on your own, how to find a practitioner to help you solve your burning math puzzle.

And what is we're going to be having a new section on on the horizon, new developments in treatment of burning mouth syndrome. We also have a membership community, which you can join where we meet monthly and really

break down the course and answer questions.

And so that's an option as well. When you buy the chorus is signing up for the monthly membership. So I certainly hope you'll take advantage of that. I'm going to take a look and see if we have any questions here.

Um, Somebody asked about the Curable Health app, and we'll put that in the description. It's curablehealth.com. And let me see if we have any others. Somebody asked if PEA can help with the vagus nerve.

Good question. PE is palmitoyl ethanolamide and it has been helpful for pain conditions. I honestly don't know if it affects pain through the Vegas nerve or not, but that's a good question and I'll be sure and look that up so I can answer it next time.

And let's see all the questions we have. So, I look forward to having you join us next month. We'll be picking a topic of interest for people with chronic pain and particularly burning mouth syndrome, but also that like the vagus nerve, which of course affects so much of our health, has broader application.

So thank you so for joining us and we'll see you next time.