Introduction to the Vagus Nerve and Gut Health

Welcome back. We're continuing our conversation on Reversing Chronic Gut Conditions, using natural health principles and you taking back control over your own health.

Super important distinctions to make, right. And I am joined today by Dr. Navaz Habib, who's a dear friend of mine and a colleague. And we have been in the trenches together in natural help, and we're actually have some exciting things in the works for you.

And I really want to bring him on because I wanted you to have this new information that he has to share for you today about his new case studies, new research that's actually just emerging now about the Vagus nerve and the Vagus gut connexion, specifically as it relates to chronic conditions.

So he's the founder of Health Upgraded. He is also the author of Activate Your Vagus Nerve. If you haven't picked up that book, I suggest you do. So let's dive right in. Dr.

Navaz, it's so good to see you, and thanks for being here today. Pleasure, as always. A pleasure. Okay. So, I mean, I'm really excited to hear about the new research that you want to cover today that's actually coming out in your next book.

So if you could start by giving us a peek into what you see today that people may not be aware of in terms of the vagus nerve gut connexion, and maybe we should just slow down and pause and just explain what the vagus nerve is and what that connexion is for folks who are just getting started on this journey.

Yeah, it's a great place to start. As always is understanding that we have this thing that is helping to control a lot of the inflammation, helping to control gut function and very heavily involved in that cut rate access.

In fact, it is the physical manifestation of the gut brain axis. So what is the vagus nerve? The vagus nerve is the 10th cranial nerve. We've 12 pairs of cranial nerves, meaning that these are nerves that generally stay coming out of the brainstem and going into the head and the neck.

And they're doing all of their fun little tasks in helping with vision through the optic nerve or hearing with your ears. They are managing a lot of the specific functions of the head and the neck, and they're located within the cranium and they're called the cranial nerves.

One of those cranial nerves. One pair of them doesn't just stay in the head and neck. And that is the vagus nerve. That is cranial nerve. Ten. We have two of them comes out on each side of the brainstem, comes down, sends a branch out to the ear, which we'll talk about in a bit.

Being an important factor, it sends branches right down through the neck where it extends out and sends direct branches to the pharynx and the larynx.

Those are the muscles at the back of the throat that help to maintain your airway and maintain a good, strong airway, especially when you're sleeping.

So there is a very strong link to sleep apnoea here for those who may be suffering from that. It goes down the branches to the lyrics. These are the muscles around the vocal cords and they're the ones that help to pull and stretch and tension, the vocal cords to create pitch and tone within your voice.

So the vagus nerve is the reason you can go really, really low or really, really high with your voice, not something that you really want to be able to do.

It's a sign that you have good vagal tone or good signalling within that vagus nerve. So it's a really important area there, but that's not all. This nerve then continues on down through the neck, beside the carotid artery in jugular vein.

So it tells you just how important that nerve truly is into the thorax, into the chest area where it sends a branch to the heart. Very, very important branch that helps to slow down the heart rate.

Who keeps you in that 50, 60, 70 beats per minute zone where you want to be? If you don't have good function there, good singing there, you're going to have a heart rate that is elevated.

But a great sign of health. Then it sends the branches to the lungs where it helps to control inflammation within the lungs, where we'll talk about the specific cells that it talks to later.

It continues on.

Understanding Vagal Tone and Stress Resilience

And imagine that down through the oesophagus and too through the diaphragm to the stomach, small intestine, large intestine, liver, kidneys, pancreas, gallbladder, and indirectly to the spleen and extends branches to all of these areas that are considered the gut as well as all of the immune and detoxification organs that are necessary for optimal human function.

And this is what's really special. The vagus nerve goes everywhere. And that's literally where the named vagus came from. It came from vague or wandering because it did so many different things were connected to so many different organs that they just couldn't even name it a specific nerve.

It wasn't the splenic nerve, it wasn't the hepatic nerve. It was vagus, it was vague. And so it came to be called the vagus nerve. And it's not the Vagus nerve.

It's two nerves that intertwine and together send branches to one another. And we have this kind of double sided support that maintains our health throughout the entire body.

And what's really important about this nerve, in addition to what it connects to, is what it's signalling. And it's signalling is managing a component of our autonomic nervous system.

So think of all of the functions or all of the processes that are happening within our body that we don't consciously need to think about. We're not consciously, always thinking about breathing.

We're not consciously thinking about beating our heart detoxifying from our liver, cleaning out blood in our kidneys. We're not constantly thinking about digesting food.

We're not consciously controlling those processes. They're automatically being controlled. And that's done so by what's called the autonomic nervous system.

We have two branches of this system. One side is a sympathetic nervous system, which often for some of these areas will shut them down because we are under threat to our survival.

This is the fight or flight side of things, and that's a necessary tool. It's not an evil. It's only not a great thing if you are constantly in fight or flight all the time.

It's just like a car, for example. A car is useless without an accelerator. You need to have an accelerator to make the car move. But you also need to be able to slow that card down.

You need to have control of that accelerator. That's where the brakes come in, and that's what the vagus nerve is. It's the brakes to the autonomic nervous system, putting us from a fight or flight into rest, digest, recover, restore,

rebuild.

That's the mode that we want to be in more often. We park our cars in our garages all the time. This is where we want to be most of the time. We don't want to be driving 17 hours a day.

It's not ideal. That's a really great way to put it. So that's a really awesome introduction for folks that have kind of glossed over the concept of the vagus nerve, but don't really know what it means.

And you mentioned a really important term that I would like you to unpack a little further before we do a deep dive into gut. So you mentioned vagal tone, right?

What does this mean and how do we know if we have good vagal tone? And let's let's start there. Yeah. Tone comes down to a concept that is best illustrated by thinking about muscle, because that's something that we can often relate to.

Muscle tone is literally the the measurement of how strong a muscle is or how functional muscle is. Okay. So if somebody doesn't work out, for example, they're relatively sedentary in their lifestyle.

They sit a lot, they don't walk a lot, and they're not actively going out and lifting weights or moving things around. Muscle doesn't tend to get used very much, and that muscle can become a little bit more flaccid, a little bit more weak, a little less functional.

And the tone of that muscle, meaning the capacity or the ability for it to function, decreases. Okay. What that is then stated to have is low muscle tone.

Okay. In the same way, nerves send signals to those muscles. And if we're not sending signals through a specific nerve, that nerve becomes a little less functional, a little more complacent.

And so we don't constantly send these strong signals through here. We know that through busy all physiological research, physiology research, that things that you use, you're going to get better at using and things that you don't use, you're going to decrease the function of it's literally a use it or lose it type of situation, maybe not to that entire zero or one type of state, but somewhere in that zone, your tone is going to be either really bad or really good, depending on how much use it gets.

When it comes to the vagus nerve, specifically for vagal tone, we're looking at how well are you using that nerve? How often are you pushing the brakes and able to utilise the brakes to slow down the car to pull you from sympathetic to parasympathetic?

And how effective is the brake pads in slowing your body down?

How the Vagus Nerve Supports Digestion and the Gut Barrier

If you constantly have stressors that are pushing you into sympathetic state and you're staying in your sympathetic state for 12 hours a day, and you're doing your best to pull it back and pull it back, the brake pads are going to wear down.

And so the effectiveness of the brakes to slow a car down over time is going to decrease. That will result in lower vagal tone, lower capacity to bring you back from sympathetic to parasympathetic.

We want to have high vagal tone. We want to have the ability to come back from sympathetic to parasympathetic in a very simple, very easy way. We want resilience to stress.

I resilience equals high vagal tone. High vagal tone means high resilience to all stressors. And that's what we want to show as our best way to see that we are able to handle stress and we have good vagal tone.

Wow, that's such a great overview and I think so many people skip over this piece and they don't understand. They're just like, have to activate the vagus nerve.

I have to add to force it, to work, force it. And instead if you thought about it like, okay, I have temporarily for a period of time lost optimal vagal function, right?

If I'm not able to easily enter and stay in a parasympathetic dominant state so that I can heal and detox and digest, all I have to do is reclaim that and almost build it back again.

But it's gentle steps, right? Consistent steps. So we're not forcing anything. We have to work with the intelligence of the body. And when I finally understood that, like when I was sick, I remember being and, you know, I think every one of these interviews that we do together is like a love letter to our audience, because I remember exactly what it feels like to struggle with serious chronic illness.

And I literally felt like I had lost who I was. I have lost my sense of self. I had lost my ability to be resilient, my ability to rest. I had no energy, but I couldn't relax.

Right. And that's, I think, the perfect way to think about having lost good vagal tone. Right. Because you might be absolutely exhausted, so you can't get up off the couch.

I remember tears started to roll down my cheeks every time I realised, Oh my God, I have to find the energy to get up to peak. You know, that's an example of someone who's not resting well.

So because you don't have enough energy, but it's paradoxical because you actually have to go to the vagus nerve and learn how to rest in order to get your energy back.

Right? Exactly. That's exactly what what I hear from patients all the time that they're suffering, that they have this inability to get themselves in a state of calm, of relaxed, of being able to shift their state into one that is calming and restful and feeling like it's rejuvenating to their health.

And they just haven't been able to do that for such a long time. It's like there's extra weights and stuff that are sitting on an accelerator that you haven't actively put there, and the car is just going and you have no way to control it because the brake pads have worn out completely.

Yeah, that's really beautifully said. Okay. So how does this relate specifically to gut function, especially for folks that have been unwell, Digestive Lee for a very long time?

You know, this is an area that is near and dear to my heart. So as a functional medicine practitioner, the gut is key, right? We know that we get all of our nutrients from our gut.

We get the vast majority of toxins from our gut. If we're not doing so well from there, we need to have optimal gut function. And this is where the majority of our interaction with our environment happens is within the gut.

And so where the vagus nerve plays its role here is that when we are in rest and digest state and it literally has digestive, that kind of classification I guess is the best way to put it.

The digestion piece can't function at a high level. Okay, so if we have low vagal tone, if we don't have good brake pad function, if we don't have the if the brake fluid is leaking or something is causing the vagus nerve to not be functioning at a high vagal tone type of zone, then digestion is not going to be something that we can actively do effectively and we're not going to be able to relay a lot of the signals that are coming in when we are eating food or when our microbiome is trying to tell us something.

Okay, so we have about 250,000 fibres between both of our vagus nerve that are going down to various organs. But the vast majority of them are going to the gut, and the vast majority of those that are going to the gut are actually sending signals from the gut up to the brain.

It literally is the gut to brain axis. It's literally sending the signal up from the microbiome. So we have got all these bacteria, parasites, viruses, yeast, worms, ideally not all of them.

Ideally just bacteria that are sending signals that are actually symbiotic for us. Right. We should be getting good levels of serotonin. That's where the majority of our serotonin is produced is within the gut dopamine even as produced majority within the gut as well.

So we're getting these signals in saying, hey, we have good levels of serotonin or we don't, hey, we have great levels of these nutrients or essential fatty acids of good proteins coming in.

And we're sending these signals through the vagus nerve to the brain to say, we have access, we have abundance, we have nutrients that are required for our optimal function.

And if we don't have good vagal tone, then that signals not getting up effectively and our body goes into a state a literal state of scarcity. We go from abundance to scarcity.

And what happens when we go into scarcity? We become sympathetically driven. We become in the state of fight or flight. We become worried. We become concerned, and our body tries to either hold on to every resource that it possibly can and it helps to increase our weight, or it does almost the exact exact opposite.

And it starts to burn everything. And it puts us into a state where we become frail and weak. And that is not optimal. Obviously, that's not allowing us to thrive.

So we need to have this interaction at the gut to under the gut level interface functioning really, really well. And that gut barrier that we know is made up of these epithelial cells, a very thin layer of cells that are present between the opening of the gut and where all of the nerves and all of the immune cells are present.

We need to have that good, strong interface. That interface is built up by the immune cells that are present within that lining of the gut. The immune cells there are macrophages and as the majority and macrophages play, the role of when they're signalling effectively to stop the gut from becoming leaky, to ensure or prevent the leaky ness of that gut from occurring in the first place.

We've all heard of leaky gut syndrome by this point. We don't know what it is. It's literally when the cells start to open up and their space for nutrients and toxins and things that shouldn't be coming through to start coming through macrophages do the job of maintaining that barrier, strengthening that barrier, preventing ultra structure injury.

And guess what? Signals to those macrophages to say we are in a happy state. And he guesses it's the biggest nerve.

Breathing Techniques to Activate the Parasympathetic State

The vagus nerve sends acetylcholine through this new pathway that's been discovered over the last 20 years called the cholinergic anti-inflammatory pathway to these macrophages to say macrophage.

We're not in a stressed state, we're not in a worried state. We should be functioning in a rest digest and recover state. Let's rebuild this gut lining and that signal is there to help maintain that gut barrier so that we have a positive symbiotic relationship with the bacteria and stuff that should be there.

But we don't have a negative relationship with the things that shouldn't be there. We are protected from the things that can come through, that shouldn't be there.

Yeah, I think that's beautifully said because what so many people skip over with the phenomenon of leaky gut, which I would argue is, you know, affecting the vast majority of us, given what's in our food today is the the response that it requires from the body.

Once these exquisite rules of what gets in and what gets out of the gut into the rest of the body or broken. Right. So then you're in this inflammatory overreact a state of like, wait, this is not supposed to be here.

Something's gone deeply wrong. And so that's fun for the nervous system, huh? 100%. Okay, so let's dive further into the newer research that you were excited to share today.

Do you want to talk about, you know, the inflammatory response or where do you want to head next? We can talk a little bit about stimulation and tools that help to improve vagus nerve function overall.

Right. What are the practises, what are the foundational stuff and what are the cool potential new ways to do that and into that as well? So our state, our our autonomic state is literally determined primarily by one thing, and that is our breath.

How are we breathing? All right. So this would be a great time. Your if you're sitting here listening to me talk about this and you're a little bit stressed or a little bit worried, let's let's check in on your breath.

So I like to get my patients to put one hand on their chest, one hand on their belly, have them sit while they do this. It's a comfortable state to be in and standing while I'm doing this, but that's secondary.

And what I have them do is take three deep breaths. I want you to kind of, as you're doing this, very calmly, carefully check to see which hand is moving.

Is it the hand that's on your chest? That's moving forward, or is it the hand that's on your belly that's moving forward while you inhale, ideally through your nose?

If your hand that's on your belly is moving, that's a sign that you're in parasympathetic state. But if it's the hand that's on your chest and I'll say for probably about 50 to 60% of people that are listening right now, they'll notice that it's your chest, one that's moving.

That's a sign that you are sending a signal through your breath to your brain that you are in sympathetic state, that you are in a state of fight or flight, the simple act of breathing through your mouth or breathing into your chest only, and not using your diaphragm to breathe will send a signal to your brain that you are too stressed to be in rest and digest.

State that there is a stressor that is going to drive this pattern that's pushing you towards I can't handle it or I need to handle something major that's coming up.

And you aren't setting yourself up to be an arrest state. So what happens when this breath is shifted into our chest? Will we trigger our blood flow to not go to our prefrontal cortex?

It goes to our hindbrain. It goes to the area that's focussed on our survival. Our eyes pupils will open up too wide. We'll be able to look at and assess all the threats around us.

We're not able to focus on a particular task at hand. For example, if we're working on something that our work productivity wise, we are going to actually shunt blood flow away from our prefrontal cortex.

So we can't even think clearly when we're in the state. Literally, we can't have a strong executive decision made when we are in that state, we are going to shut off our gut function while we're under threat.

Who cares what nutrients are coming in? I don't care. I'm not worried about digesting. Well, while there's a sabre tooth tiger running after me or when somebody cuts me off in traffic.

Right. We're sending signals to all of these organs that are essential for thriving, but not essential for surviving in that moment that they don't need to be on.

And I think that's a really important thing that you just said right there. So when we're stressed, we shut off the ability to digest. That's actually a decision that the body makes, that the autonomic nervous system level.

Yeah. So that we are unable to actually build and receive and use the building blocks of life that we must have in order to thrive because we can only survive.

So if we do that often enough, for long enough, we lose vagal tone and we lose the ability to come into that rest digest repair state easily because we're so habituated to the other night.

Exactly the habituation of being in that sympathetic state is driven through our breath. And so we can use that. And here's where you get your agency back.

Being able to say, I can I can handle this is by shifting our breath to our belly, by shifting our breath to our nose and slowing down the exhale, especially so is it. Inhale and exhale.

How do I how do I do this breathing pattern to improve my vagus nerve to put me in a state of parasympathetic more than sympathetic? The easiest way to do it short inhales, long exhales when when we inhale, our heart rate actually goes up because inhaling is a sympathetic activity.

When something stresses you out, for example, you hear a loud noise. That's the first thing we all do. We gasp. Yeah. What's happening? That's a sympathetic response.

Whether it's the actual activation from the external source, we hear a loud noise, we see a loud bang or a large, a loud flash of light or something that causes us to do that.

It's the breath that signals that we have to go into a sympathetic state. So our breath is the controlling piece here, the shorter time in an inhale that we can use, and the longer time and exhale as we exhale, our heart rate goes down.

And if we can spend more time in an exhale, ideally double the time in the exhale that we do in the inhale that will build up the time that we spend in Paris.

And over time, with lots of practise and and time spent focussing on this will increase your vagal tone. That will increase the time you spend in rest, digest, recover repair zone and it help to shift the immune cells that are being signalled to by the vagus nerve to say we can shift from a state where we're worried and stressed and surviving to being able to literally thrive.

This is a branch of the immune system, neuro immune activation that occurs where we literally see a shift in the shape of macrophages from being more globular to being more differentiated. Hmm.

You go from a state of being m one where they're literally just firefighters being m to where they can be more housekeepers, repairmen and support staff security, etc.

It's a big shift between being a firefighter and being a support staff and vagus nerve is going to shift that. I think this is so important to slow down and really explore this topic for people because we get so many people into our practise and I'm sure you do too in your community where they come into our courses or into the practise itself.

So, okay, I've done all the things I have been to last year summits. I've listened to your podcast episodes. I know all the speakers in the space. I know more than my, you know, my doctor does about my symptoms, my conditions.

I have been sick with these various labels for years. I have done it all. I see these supplements. I've used these supplements before. You know what else you got for me and what they don't want to hear and what I certainly didn't want to hear. And I understand it.

And because it feels trivial, it really does. But you don't want to hear, hey, we've got to give you some tools to

manage your stress, because whatever life stress you had that was a component of helping you get sick probably wasn't resolved.

And then the other, the additional medical trauma stress of not literally not having the energy to meet life for an extended period of time. Right. So the more we can slow down and have a really nuanced conversation about this instead of somebody at the end of a podcast saying, Oh yeah, and by the way, remember to breathe like, yeah, yeah, but let's, but let's really get into the nitty gritty, right?

So how would somebody go about retraining their body to do this, you know, when they're already not feeling well? Yeah, we have to start with shifting that breath and taking time out of our days multiple times a day for 5 minutes at a time to be able to make this shift occur.

And the practise is very simple. Once you put it in practise and you do it repetitively, you'll see the change and it needs to be something that you do over and over.

The combined effect of this is real, and for those who understand the compound effect, if you utilise this, it will actually make a big shift. So it's known as the four, seven, eight breath method.

Okay, so 4 seconds on the inhale. You're counting before you can use an app that does breath timing, there's a bunch of free stuff out there you can utilise.

So it's 4 seconds on the inhale, 7/2 hold, you're holding your breath inhaled for 7 seconds and then you're very slowly either through your mouth or through your nose, ideally through your nose.

But it doesn't really matter so much for the exhale. You're going to exhale for 8 seconds, 4/2 inhale, 7/2 hold, 8/2 exhale. What you're doing is you're doubling the amount of time that is spent in the exhale versus the inhale.

So 8 seconds versus 4 seconds. And that hold is calming and slowing everything down. Something you'll find very commonly is people that are in a sympathetic state are more often than not breathing through their mouth and breathing very rapid.

Oddly, the rapid rate is getting up in the 15, 17, 20, 25 breaths per minute zone, which is crazy. That's 1/2 in and out. Right? That's kind of insane. Right.

And what we're doing is we're breathing in and we can't handle any carbon dioxide building up within our body. We're trying to exhale as quickly as we possibly can.

We're not spending that time in the exhale. We're not allowing our body to be comfortable with a little bit of carbon dioxide built up. And this is a really important point that you just mentioned here.

Okay. So if you're somebody who has, you know, not enough energy to heal, right? So and so you're in a state of chronic fatigue and you have bloating and gut dysfunction.

And so you're uncomfortable in your body. And you've been under a lot of life of stress. And if you're anything like our students, you also have an enlarged liver, fatty liver.

You got a lot of stones and cholesterol built up. So you literally don't have a lot in your body cavity right to breathe. And you have lots right around the rib cage.

So this could feel very normal to you to have this shallow breathing, right?

Practical Ways to Improve Vagus Nerve Function

Yeah. In fact, very uncomfortable to. Go into that, isn't it? That bottom third of the lungs, that last third of the exhale that's actually detoxifying.

So we have to get all the way through that exhale. And that's why you need to extend the length of that. I just last year can you you're quiet right now. No should be working try again.

How does that know that. Oh that was weird. I don't know what was happening. Sorry, your thought continued. So the exhale needs to be drawn out and it needs to be a complete exhale.

And you're. You're absolutely right when you say that the inhale while we're doing that or while we're well we're trying to exhale and it's very shallow.

It can be very uncomfortable to get into a deep exhale. And that's because we've literally created a comfort zone that is tiny with regards to how long the inhale and exhale can be and how much actual motion is occurring within the diaphragm.

And that key, right? If our diaphragm is not going up and down with every breath significantly, then there's a whole second piece of this puzzle that is going to be affected, and that is the diaphragm is creating as we're breathing in, it's creating a vacuum in the lungs to bring in that air.

But it has to go down to create that vacuum. It has to literally go and compress just details. It's not a big deal. It has to literally go and compress all of the organs that are below which organs might be right below the diaphragm.

Anyone there? No stomach. Small intestine. Large intestine. Liver, gallbladder, pancreas. Those might be involved in gut function, not entirely certain, but that motion pattern literally is creating a motion massaging type effect within the organs below.

And so we have a physical motion of the diaphragm that is creating a physical motion of peristaltic action within our gut. So parasympathetic activation would slow deep diaphragmatic breaths, especially with the exhale, are going to compress and create that massaging motion pattern in the organs below.

Those are all the abdominal digestive organs that will help to create a physical motion moving food along in the correct pattern. And it should be at the correct rate that it should be, and making sure that you will then be able to go to the bathroom on a regular basis, be able to extract nutrients from your food regularly, be able to pump out the bile from your gallbladder that needs to be there to help absorb the fats with the bile salts and push out the toxins within the bile that's being released as well.

It's it's so simple that it can be very easily overlooked, but the breath is going to drive that. And there's no question about it. This has been studied thousands of times over and corroborated by almost every single study that the breath will drive, help and your control of your breath is going to do that.

And so beautifully said. Okay. So I think we did a good unpacking of that process. Let's do a wrap up of in your mind, what are the top five ways to upgrade vagus nerve function?

And, you know, let's be clear about the ones that you've already covered before. What what's in the top five that we've already mentioned? And what other ones do you want to list?

Number one, no question. Deep diaphragmatic breathing with long exhales double exhale, then inhale for seven. Eight is a very simple, easy to sum in practise.

Okay, so that one we've already talked about. Wonderful. But it's going to be linked to every other one that we talk about. Number two, we talked about some of the other connecting points of the vagus nerve.

We talked about the pharyngeal in the laryngeal muscles. Gargling is a wonderful tool that I recommend to a lot of patients. It's a really simple one to add in.

By the way, the majority of what I'm going to tell you today is like easy to implement free stuff, which is always fun. You don't need to spend too much money to make breathing happen, which is wonderful.

So grab a cup, keep it by your sink. And every morning and every every evening when you brush your teeth, take a little bit of water, throw in a bit of salt, that helps to break up some of the stuff at the back of your throat and take a sip and hold it at the back of your throat and gargle as hard as you physically can.

Okay. Gargling is wonderful. And what it does is the salt is going to be there to help break up any of the mucus that's sitting at the back of the throat.

But what's special about gargling here is while we are doing the gargle, we can't inhale. We cannot take water into our lungs. It's going to create aspiration.

It's literally going to choke us and cause us to drown internally if we were to do that. So we have to be in an exhale state. We are creating a sound and if you remember, we have a branch of the vagus nerve that goes to the larynx, that stimulates laryngeal muscle activation in the voice.

The vocal cords get activated and that vocalisation is your vagus nerve working over there. So now we have this pocket at the back of the throat that needs to hold water and pharyngeal muscles.

At the back of the throat are the ones that are there creating that tone to help create that pocket where the water sits. So it doesn't go back into the back of the throat or into your lungs.

We're breathing out, we're exhaling and we're vocalising. We've got three different areas that we're affecting with the gargle that are going to stimulate vagus nerve.

Okay, so we're getting vagus nerve activated in multiple ways with the basic gargle. The longer the exhale, the better. If you can do anywhere between ten and 30 seconds on an exhale with that or with that gargle, that's a really great sign.

If you can do that three or four times in the morning, three or four times in the evening, you're literally setting yourself up to have a successful day with that gargle.

Hmm. Quick sign as a check in to make sure that it is working. You know it's working. When you start to tear from your eyes. So you're gargling hard enough to create an actual tearing that occurs that's really, really beneficial.

It's really important to remember. Okay, so we've got breathing for seven, eight gargling wonderful tool. I mentioned the vocalisation piece and so I'll just kind of add that as number three as well.

Humming, chanting, singing, speaking with friends, laughter. These are all ways to stimulate your vagus nerve because when we're getting things off her chest, when we're actually vocalising, when we're singing or creating a vibration within the laryngeal muscles, we're physically stimulating that muscle with the motor branch of the vagus nerve that goes there.

So we're simply getting vagus nerve stimulated while we're singing or talking. We're exhaling. We can't do it while we're inhaling. So we're lengthening the exhale by doing so, which is wonderful.

So sing in the car, sing in the shower, talk to your friends, be around people. That's social connectedness is a really important piece that is easily overlooked as well.

When we spend time with people were able to get things off her chest and we don't hold on to emotional triggers and stuff as well. So get the things off your chest.

Speak about the things that you're not happy about. It doesn't need to be that everybody can be in your in the comfort of your own office or home, whatever it is.

Okay, get it off your chest. So breathing, gargling, vocalisation, and on the vocalisation piece for those who know when you practise, that's been around for thousands of years, but only when you are meditating and you use the

words or the humming sound of that vibration piece is actually the frequency that improves vagus nerve function significantly because you're physically activating that as well.

So isn't that fun? And that's the universal sound. Line that I love it. I'm going to go to my last two big ways to upgrade vagus nerve number four is going to be cold exposure.

Okay, now I always get a bit of a cringe from people that like, oh, cold shower is cold. I don't want to do those things. They work. I can't explain it in significantly better ways.

But everybody, when they get into cold water, you jump into a cold lake. The water on the shower is too cold. What's the first thing you're going to do?

Go into a sympathetic state that's so stressed out and then if you can, you breathe through it. And what cold exposure does when you do it over a few minutes, it's it teaches you to breathe parasympathetic calmly while you're in a sympathetic state.

It is literally training your ability to go between the two states. Okay, don't do it. If you have a runny nose, don't do it. If it's going to cause you to be in significant stress to the point where you're going to go off and have a disease state after doing it, then figure out where you're at.

If you feel like you can add in something like old exposure into your plan, you've been thinking about it and it's something that you've been dancing around.

I promise you try it for five days in a row and you'll start to notice huge differences in your ability to handle stress really, really easily. And I think you said something really important there.

You don't have to be a biohacking bro about it, right?

Clinical Applications and Vagus Nerve Stimulation

If you're not, well, you can ease into this. Right? So I took a couple of months, you know, rotating hydrotherapy in the shower, down a little bit more, back down a little bit more every day and back for a longer and longer.

And now, if I don't have that cold shower after a workout, if I don't, you know, I'm thinking about it like I'm looking forward to it because I know the body response I'm going to get, I think. Yes.

Exactly. And that's the exciting thing. You've trained yourself. You've allowed it to help you with your dopamine waves and make you feel like you've accomplished something.

And now you're ready to take on the next challenge and you want that next dopamine hit. And it's going to be a positive one because we're not going off the deep end with dopamine and we don't need to do that trick.

But what it is, is a wonderful way to get yourself set up to say, I can do hard things. Yeah, that's beautifully said. So I think we covered an important range of concepts here that for whether you're a beginner taking your health journey into your own hands just now, or whether you're a very complex case and you've tried all the things, there's more work to be done on the parasympathetic state and reclaiming your vagal tone.

Right. And a lot of it's free. So what I would love to end on for today is I really want to invite you to share your message to practitioners because we have a lot of practitioners in the audience who are acknowledging that, hey, the bucket of tools that I went to school to learn are no longer working for these complex chronic conditions.

Right. I need to expand my skillset. I need to meet the challenges of humans today. So what would you say to them? What do they need to know in order to ease suffering and help their patients thrive?

I think with regards to all the tools that I've stated so far that there are basic foundational tools that we were taught

in school that need to be reimplemented into everyday life for everybody, especially for us as practitioners.

Because if we don't take care of ourselves, nobody else is going to. And this comes down to something as simple as doing a breath practise with your patients when they come into the office.

How cool would it be for your patient to come into the office? In a sympathetic state, you do three deep breaths with them for seven eight. They actually start to think about things very clearly.

Their executive function turns on and they're able to go home with a tool that they've implemented in their brain that they can utilize at any given point.

How cool would that be to actually create that positive change in the life of that patient? For me as a practitioner, I love that. I love being able to to share that something as simple as your breath can have, that profound effect and when needed, there are tools that are coming out that are really exciting.

And so I just want to share a quick case story, a patient that I spoke to last week, been working with her for about four months. She came in with a diagnosis of Gastroparesis Type two diabetes, and sadly, her husband had passed away about eight months prior.

So had this emotional stress and this charge of just negative energy, negative emotion that was around this. And when she first came in, we did the functional assessment.

We checked her gut we checked her organic acids, do a couple of tests here and there. And I get really great results showing what nutrients are missing, where the challenges are occurring.

And we found a couple bacterial imbalances, a little bit of dysbiosis going on. We found some nutrient efficiencies and we started plugging away on these holes.

But I added in these breath challenges and I did in these practises for her and she started to feel a little bit better. And then I added one more tool into her toolbox, and that was electric vagus nerve stimulation, a non-invasive tool that I can utilise that I can share with patients to literally electrically stimulate the vagus nerve in the neck.

I did this in with her five weeks ago. The changes I can't even explain to you are profound. Her bowel movements have completely normalised. Her energy is through the roof.

She used to need to take a nap every afternoon, did not have the energy to get up out of bed in the morning. It took her an hour to be able to do so. She's waking up at 6:30 and going for a walk every morning.

Right now, after having done this regular bowel movements, her blood sugars are coming down significantly. She hasn't made major changes to her diet. She hasn't made tons of massive changes and taking supplements and whatnot.

I'm not at all about adding a lot of those things and I'm all about creating those strong foundations. Yeah, there's been a few things sprinkled in. This thing's been a game changer for a lot of patients.

Her gastroparesis is essentially gone within a month. Wow. Very interesting. Okay, that's very thought provoking. This is one of the tools that I'm going to be sharing in my next book, which is coming up eventually.

But there is a lot of positive research coming up on vagus nerve, vagus nerve stimulation as being a tool that we can use when people have gone into those chronic disease states to help bring them back into thriving.

Beautiful. What a great message I hope to end on. Thank you Navaz. That's awesome. Thanks for being here and sharing your wisdom today. Thanks for helping to spread this in a way that's really accessible to people and also acknowledges the complexity of chronic gut issues.

Today, it's it's an epidemic and it doesn't need to be. So we're on a mission to change that, right? Love it. My pleasure. Thanks for having me.