Introduction to the Summit and Breath Topic

Hello. Hello, everybody. And welcome back to the Reversing Heart Disease Summit. I'm doctor in Moreno Scalzo, and I'm your co-host, along with Doctor Joel Kohn.

And we are here to bring you Cutting-Edge information to help you maintain your cardiovascular system in a healthy way and not be victim to the top killer disease in the Western world.

So I'm excited for our talk today. I am here with Doctor Sachin Patel and he is, he's he's an expert in a lot of things. But one of the things I really wanted him to talk to us about today was breath.

And, you know, you think about breath is we all know how to breathe, right? We all know how to breathe. We should know how to breathe. We stay alive that way.

But is is your breathing optimal and is your breathing helping you to achieve optimal health and optimal cardio vascular health? So welcome, Sachin. Thank you.

And I'm really excited for our conversation today. And, I want to start by saying I am not an expert in anything. I am a student and a student for life, so I'm always learning new things.

And what I'm able to do is kind of bring them back in a way that's easy for people to understand and hopefully not just understand, but share with others, because that's ultimately what I know your goal is.

Breathing as a Core Health Technology

And my goal is, is to really create a ripple effect, not a dent, but a ripple effect that propagates beyond the the listener of this interview and gives them ammunition, and content that they can share with others that can have a profound effect on their life.

So, I, I appreciate you, calling me an expert, but I want to just clarify that I'm a student, and today we'll scratch the surface of the surface of this topic, and I continue to learn more things.

And if you interview me a year from now, I'm sure I'll have more to share as well. Yeah, I love that attitude and I love that way of looking at it, looking at things from the beginner's eye, as opposed to thinking we're an expert in things.

A lot of people go around thinking they're an expert, but they don't have their eyes and ears and eyes open to the new stuff that comes out. Or to maybe there was a misunderstanding in the past that we take on a new one.

And I tell people that, too. There's people who are out there teaching that, oh, become a new functional nutrition expert in 30 hours. And I'm like, I've been doing this for 33 years, and I don't consider myself an expert because I'm still learning.

So I love that. I love that that approach. So thank you. So breathing. Right breathing. We should all know how to breathe. We do it, you know, whatever.

Anywhere from 10 to 20 times a minute, maybe more, maybe less, depending on how efficient your breathing is. And we all should know how to do it so most people don't do it right.

And and I see that and I know that you teach that. But how does that affect our cardiovascular system. How do how does learning how to breathe effectively improve our cardiovascular risk.

Yeah. Great question. So I want to start by saying that at one point I believe that we were all perfect breathers. So if you look at a baby and the way a baby breathes is into its belly, and sometimes parents don't even think their child is breathing, right?

Because they're so efficient at it. Whereas you look at an adult who's in fight or flight, and you can immediately see that this person is a perpetually poor breather.

Now, why does that happen over time? I think is a very important question for us to ask. And, there's a few reasons why that happens. And of course, some of these are physical in nature, some of these are emotional in nature.

But regardless, it shows up if you're a clinician in your in your practice every single day. And for me, it showed up every single day. But I was evaluating it.

I wasn't looking for it because I was so, you know, I was essentially bypassing breathing and getting into the mitochondria, into the microbiome, into the micronutrients.

Right. And while those things are important, I would would say that there's nothing simpler and more measurable. It creates a more immediate effect on the body than breathing.

And I like to think of breathing like changing, directions with your steering wheel. So I think of the breath like the steering wheel in your car. Right.

You could have oil that's been in there for years and your car will still run. And of course, you could replace the oil and it'll run even better. That's like, you know, kind of looking inside the body, but I can I would argue that if you if you didn't know how to steer your car, you'd be in trouble far sooner than a delayed oil change.

Right. So breath is like the steering wheel of our nervous system. And it kind of gives us control over our physiology, not only from a cardiovascular standpoint, but from a systemic standpoint.

And if I was an ingenious designer, with infinite wisdom and designed in the image of perfection, then I would use the breath, which is something we do 23,000 times a day.

And I would use that as the lead domino to create a physiological effect on the body. A physical effect on the body, and an emotional effect on the body.

You see. So when we understand how breath can, can directly impact these three areas, we start realizing that it's not just, something that we do, but it literally is a technology that is housed within each and every one of us that produces a predictable outcome.

So I know your question was about cardiovascular health. And and we can we can pan out into, you know, taking a 30,000ft view, one breath, and then, of course, zoom in, on the cardiovascular system.

Nitric Oxide, Nasal Breathing, and Blood Pressure

But, I'll start by saying or I'll, I'll continue by saying that, you know, one of the most common cardio metabolic disorders is and one of the lead dominoes in cardio metabolic disorder is hypertension.

So it might be good for us to kind of take a can, take the breath into consideration when we're focused on something like hypertension. You know, during Covid the number one comorbidity in the hospital was people with high blood pressure.

And so it's so common that it's not even sexy, right? You don't even see functional medicine practitioner as a holistic practitioner specializing in blood pressure.

You know, we we tend to specialize or focus on the more sexier diagnoses. But if you can address somebody's

blood pressure, that's the lead domino to other cardiovascular diseases.

And usually the first sign of dysfunction. Now, why is the breath connected to that? Well, there's a few reasons why. So first of all, we mentioned that the breath is the nerve.

Is the window and the steering wheel into the nervous system. So if somebody is in perpetual fight or flight because of a dysfunctional breathing pattern, perhaps they have short, shallow breathing due to trauma or perhaps they have short, shallow breathing because they're anxious.

And I'll share with you in a minute that it's a two way street. Or perhaps they have poor shallow breathing because they have a weak diaphragm. You know, these are all common, you know, reasons why somebody would have, you know, dysfunctional breathing.

The other reason or the other connection is the relationship between how we breathe and nitric oxide. So I'm going to I'm going to build a bridge between the diaphragm and nitric oxide.

And I think people will really quickly understand how changing the way they breathe will immediately and measurably change, conditions like hypertension.

So let's talk about nitric oxide for a moment. So nitric oxide is a molecule. And when it was discovered, the the scientists won a Nobel Prize. That's how important nitric oxide is.

Nitric oxide nosedived for men and women starting in their 20s. So many of the degenerative issues with metabolic health and even, erectile health, health and sexual health has to do with a natural decline of nitric oxide levels.

Nitric oxide has many functions, one of them being that it dilates our blood vessels. So by dilating our blood vessels, it requires less pressure for our heart to pump blood.

The other thing that nitric oxide does is it acts as a, as a, as an anti-viral, an anti pathogen. And nitric oxide actually lines the nasal cavity in our nose.

Now why would it be there? Why would we make, nitric oxide in our nasal cavity? Well, we breathe about 30 pounds of air a day. Some people more, some people less.

So we actually consume more air in a day than food we would consume in a week. And so the most interaction that we have with the outside world actually isn't through food.

The predominant interaction we have with the outside world is actually through our lungs. And so when we breathe in through our nose, if we have a healthy oral microbiome, and we all know that oral health is connected to heart health.

So if we have oral, a healthy oral microbiome where we're not using mouthwash, right, we're taking good care of our, of our of our dental health and we're also breathing through our nose instead of our mouth, because breathing through our mouth dries out our saliva.

Now, when we dry out, our saliva creates this. The conditions for a dental decay. So mouth breathing is the number one cause of cavities. But it also kills and changes the oral microbiome, which is responsible for making nitric oxide.

Nitric oxide is released by the bacteria and it lines our nasal mucosa because it's anti pathogenic, which means that when we breathe in the air and we're breathing in pathogens from the air, nitric oxide kills them on contact.

This is why during Covid, there was a company in Vancouver, Canada that actually developed a nitric oxide nasal spray to help people dealing with Covid because it has those antiviral properties.

So we actually make nitric oxide if we breathe correctly. Breathing through your nose increases nitric oxide sixfold, and something as embarrassingly simple as humming increases nitric oxide 15 fold.

So you could do nasal breathing, which is how we should be breathing most of the day and certainly at night. And in certain conditions you can hum and that'll increase nitric oxide.

Another way to increase nitric oxide is to get more sunlight. So taking, taking this outdoors or spending more time outdoors and getting sunlight directly on your skin will also increase nitric oxide, reducing naturally blood pressure virtually instantly.

Nice. Now, the other thing that happens with nitric oxide is that it not only dilates our blood vessels and not only has an anti pathogenic effect, but it helps promote, healthy circulation.

And as we know, circulation is crucial because the heart's job is to move blood throughout the body. And if we are not breathing correctly, then it can't do that job as well.

Now, something as simple as nasal breathing. This is important. And most people don't know this, including myself five years ago. So I'm literally speaking to myself five years ago because I didn't know any of this. Okay.

And so what happens when we breathe through our nose?

How Breath Supports the Heart and Nervous System

We actually increase the pressure of the air that we are inhaling, which allows us to consume 20% more oxygen. Now, here's why this is important. Because if we think of our heart and we think of our cardio respiratory system, it's like it's like working together as a single unit.

So when we take a nice deep breath in or any breath in for that matter, what happens is our rib cage is a contained and defined volume, and our lungs expand inwards.

When our lungs expand inwards, they squeeze our heart. Now imagine pressurizing that air by breathing through your nose. You're going to get more of a jet.

You're going to get more of your lungs squeezing your heart. So guess what? Your heart mechanically is being assisted by the lungs as they expand. When you take that nice a pressurized breath.

The other thing that happens when we breathe correctly is our diaphragm, which is also referred to as the second heart. The heart literally sits on top of the diaphragm, sandwiched between the lungs.

And as our diaphragm moves up and down 23,000 times a day, it's also assisting the heart in pumping blood. So the more functionally we breathe and the better we breathe, the less our heart actually has to work.

So we're actually assisting physically assisting the heart in producing its pressure. So of course an intelligent designer would design us that way, right?

Our heart has our heart beats about 100, you know, 100,000 times a day. We take about 23,000 breaths and the two are very closely connected with one another.

In fact, remember, if I wanted to rapidly increase your heart rate right now, I could do that by having you take short, shallow breaths, and all those breaths would start pumping your heart right and increase your heart rate.

If I wanted to decrease your heart rate, I could do the exact opposite. I could place your tongue at the roof of your mouth. I could have you breathe in gently through your nose for a count of six, breathe out for a count of six, and within less than 30s, your heart rate would measurably change.

So we know that breath is the fastest way to change our physical state. In fact, our body and our nervous system unconsciously lead to us uses our breath when we are changing physical or physiologic states.

For example, if you were to finish a project, you would say, right, we feel a sense of relief if you were if a lion were to walk into your room right now, or if you spilled your coffee all over your desk, or somebody spilled their coffee all over the desk, they don't sigh of relief.

They gasp like, right? And why do they do that? It's because when they're stressed out, or when they experience that immediate stressor, by rapidly expanding your lungs, you're rapidly increasing blood pressure, sending more blood to the arms and legs so you could run away from whatever is chasing you.

So you see, our body is already using the breath without us realizing it. And so that it's actually a two way street. So if I wanted to induce a state of relaxation in you, I could do something that Andrew Huberman and his team actually found more effective than meditation, which is something called a physiologic sigh.

Now, you know, for the interest of time today, just go look up physiologic side or physiological side. You'll see it referred to as those two things. And it's basically exaggerating that side response to create a relaxation response faster and more effectively than meditation does.

So we can use our breath to literally turn on and off certain processes. I can use your breath to change your body temperature, your core temperature.

For example. Dogs do this right. Dog stick their tongue out of their mouth and they breathe in and out through their mouth to regulate their temperature.

Guess what? I menopausal women having a hot flush can do the same thing. And I'm not suggesting that because I don't know their history, but we can actually use our breath to regulate air temperature.

If you're cold, you can actually use your breath. You can do something called ujjayi breath to actually increase your core temperature. If you want to get more blood flow to your arms and legs and your fingertips, you can breathe in a certain way.

If you want to get more blood to the left hemisphere or the right hemisphere, you can change the way you breathe. So how we breathe is literally like pushing an elevator button on an elevator, and we can know, predictably exactly where it's going to take us.

So when I learned all of this, I'm like, oh my God, how come nobody has taught me this? But other fun and interesting facts is, you know, we talked about the connection between how we breathe and oral health.

And there's also connections between mouth breathing and the foods that we crave. So, for example, breathing through your mouth actually changes your taste buds in such a way that it requires more sugar for you to taste sweet foods.

So you and I, for example, are you and me, me and somebody else. So I want to speak this into your ether. Somebody else. If somebody else is mouth breathing and I'm not mouth breathing and I'm, very, you know, controlled and regulated, breathe air.

My nervous system is regulated. But also by breathing through my nose. My taste buds are also conditioned properly. That person is if we're going to acquire more sugar, to perceive the same level of sweetness as I would.

And so some people might have say, I have a sweet tooth, right? Or I need to add a lot of sugar to my food, or to my coffee or whatever to make it taste good.

Well, it might be that their mouth breathing and they don't. It doesn't taste as sweet to them as it might to somebody who's who is a, you know, regular breather.

I, you know, a normal breather, I should say, or, you know, a seasoned breather. So is an ideal breather or a breather, right? An efficient breather. Yeah, absolutely. So.

So the oral health, you know, we know now that, you know, it's funny, I have I have clients that and I actually work with groups of dentists and we talk about the systemic effects of how we breathe.

And and one of the things that we have dentists do as well, and there are airway dentists. So if you're looking for a dentist, you can go to ask the dentist.com.

And you can find an airway focused dentist who focuses not just on having nice white, right pearly teeth and a straight smile, but they actually focus on how breathing affects your facial structure, which we'll get to in just a minute here.

So when I work with dentists, one of the things that we have them do is actually pay attention to the way their clients are breathing and have that discussion with them, because the number one cause of cavities is mouth breathing.

Trauma, Diaphragm Release, and Emotional Regulation

And when I learned this, I was like, it made so much sense because when I took my son to the dentist for the first time, we thought, oh, he's going to have a clean bill of dental health.

I don't even know why we're here. And when we when we met with the dentist, he's like, Mr. Patel, I have good news and bad news. I said, well, what's the bad news?

He's like, well, your son has a ton of cavities. I'm like, well, what's the good news? And he's like, well, all of his teeth are going to fall out anyways, so we don't have to do any drilling or we don't have to put any, you know, we don't have to put any fillings in there.

I'm like, okay, well, we dodged a bullet. Do you know why this happened? Because we don't feed him sugar. And the dentist didn't really have an answer.

And then I read James Nestor's book. And James Nestor, I know, I know, you're familiar with his work, and, you may have even interviewed him, but, James Nestor wrote a book called breath.

And when I read that book, it explains so much of my son's, issues that I couldn't like. I had to go deeper, and I had to go deeper and deeper and deeper.

And that's what really prompted me to go down this rabbit hole. So what I discovered is my son was a habitual mouth breather, and we thought it was the cutest thing because he'd wake up and he'd have drool all over his pillow.

We'd sneak into his bedroom at night and and we'd see his mouth open and and his tongue hanging out of his mouth, and we just thought it was the cutest thing.

We didn't realize how it was negatively affecting his behavior, how it was negatively affecting his stress levels, and how it is negatively affecting his oral health.

So when we work with our dentist, one of the things we teach them to do is to have their clients don't start mouth taping at night, and when their clients start mouth taping, there's less plaque buildup.

There is way less cavities. And when you go for your oral cleanings, it's going to be a pleasant surprise to your, to your technician who's cleaning your teeth or your hygienist to your dentist, and also to yourself because of changing one simple thing, which is how we breathe.

So I, I don't always share this too often publicly, but I've been to the dentist once in the last ten years, and the last time I went, the dentist said, why are you here?

You're you're you don't have any plaque in your teeth. They're just fine. And I've never had a cavity in my whole life. And, and so when I go to the dentist, it's like a complete waste of, time for me because I've learned how to breathe.

And so when you learn how to breathe like animals don't have dentists, animals don't get cavities, right? Like you don't ever see. You never see an elephant visiting the dentist.

Because when when you breathe correctly, everything takes care of itself, right? You know this. We're a self-sustaining, self-organizing, biological, you know, machinery, and we have an infinite intelligence, you know, wrapped up inside every single cell in our body.

But nobody's taught us how it works. Right? And so everyone wants to fix the downstream effects of upstream dysfunction. And breathing is one of those things.

And just to just to kind of create some, completeness here. The diaphragm, is responsible for three, really four kind of crucial components of our health.

So one is that it's referred to as a second heart. 40% of our blood pressure comes from our lungs and our diaphragm. Okay. Somebody who is hypertension, one of the first things we want to fix is we want to get them nasal breathing so we can get their blood vessels to dilate.

And we want to get them strengthening their diaphragm by doing something as simple as a crocodile pose. A crocodile pose is laying on your stomach with your hands.

Or just like this. So you're just putting your forehead on your forearms like that, or laying on your stomach and breathing into your belly. The resistance of you trying to lift your weight with your belly is going to work, and help in strengthening your diaphragm.

Another reason that our, not the reason our diaphragm is pretty amazing is that our biggest lymph nodes in our body are underneath our diaphragm, and that's exactly where I'd put them if I was an intelligent creator.

Because every time I breathe in and out, if I'm doing it ideally incorrectly, I'm pumping my lymphatic system. Remember, our trunk organs don't have muscles right?

So our trunk organs are encased in a cylindrical type of muscular, system where we have a pelvic floor and we have a diaphragm that moves up and down with each breath, pumping those internal organs and moving that lymph.

So people who have dysfunctional breathing or short, shallow breathing are not moving that lymph. Appropriately. The third reason that our diaphragm is important is because it serves as a hydrostatic, pump and maintains the hydrostatic pressure of our myofascial system.

So our myofascial system is this intricate, web like structure that we used to cut through an anatomy class. We just thought it was like junk tissue. We just cut right through it to try to get to the muscles and the ligaments and the tendons.

But it turns out that our myofascial system connects every cell nucleus inside of our entire body to one another. In this hydrostatic system, which means that our cells communicate with each other through this matrix instantaneously.

So when I touch my finger here, my toe, my my my fascial system in my toe feels that pressure because there is a constant transfer of pressure. So every nucleus in our cell is connected through this system.

And the master regulator of the pressure in that system is the diaphragm. And that makes sense that it would be the muscle right in the middle of the body.

Because, you know, when we experience a blow, for example, if somebody was going to punch somebody else, what is that person? Do they tense their abdomen?

Because what happens is they now are maintaining pressure in that myofascial system. So we're doing this whether even realizing we're doing it now, what happens when we experience trauma.

That trauma then creates adhesions and scar tissue and trigger points in our diaphragm. And so when our diaphragm becomes triggered, or when it has trigger points, our breathing becomes short and shallow.

So people who have continuous or ongoing traumatic experiences in their life, they're usually going to have short, shallow breathing, which leads to a chronically dysfunctional central nervous system and fight or flight response.

So they're always on edge because of the way they're breathing, but they don't realize that the way they're breathing is a result of their traumatic experiences, that their fascia is holding on to, that their diaphragm is holding on to.

And when you start releasing the diaphragm, getting rid of some of those trigger points, we start getting rid of some of that trauma from the body, and people start breathing better.

And when you start breathing better, within minutes, you start feeling better. It doesn't take days or weeks or months to see a difference in the way you're breathing.

And I know you've I think you've attended some of my breathwork sessions. We see people having within 90 minutes radical transformations in their health, literally life changing, trajectory changing experiences, because now they're getting rid of trauma.

I have a quick story to share. So I was at an event speaking in Saint Kitts, and we were doing a diaphragm trigger release exercise. And you just basically, like, hook your fingers, take a rock's breath out, you know, laying on your back usually helps because it lets you relax your abdomen and you're just kind of like poking around in there and seeing if you have any adhesions and trigger points and working on them.

And this gentleman named Mike just started bawling his eyes out. And, everyone's kind of like, okay, what's going on here? And it turns out that when he was younger, he would always have to hold his abdomen rigid because he would get bullied at school.

And, you know, as he's walking down the hallway, people would punch, come up to him and punch him in his stomach. So he always had to have a tight abdomen.

Nighttime Breathing, Mouth Taping, and Airway Health

And so his, his diaphragm had all these trigger points in it. And as he started releasing those trigger points, the emotion started coming up and releasing for him as well.

And he realized, oh my God, I've been holding on to this my entire life. And it's it's been, you know, quite, you know, disabling for him in the sense that it's causing him to have dysfunctional stress levels, which causes us to be not the best version of ourselves.

Right? We might lash out. You know, usually when people are stressed, they don't lash out at people they don't know or don't like. They lash out at the people they love the most.

So it starts affecting our intimate relationships, right? It affects our relationship with our children. It affects our relationship with our spouse. And, you know, people that are close to us.

So he started releasing this. And, you know, he's able to to let it go. And immediately he felt better. Now, another interesting case study is when a child is told, I think that at some point we've all probably been told to stop crying and or we've told someone to stop crying, right?

Whether we realized the implications of that or not or a different story. And I think after this, what I'm going to share now are people might think twice about it the fastest way for the nervous system to reregulate itself after a stressful experience is by crying.

So crying is actually a form of breathwork. So when your child is sobbing, when your child is crying, let them cry, right? What do we do when we cry? We lengthen the exhale right?

By lengthening the exhale. We're shift. We're trying to. The nervous system is trying to shift us into a more parasympathetic state. The other thing that happens is when we tell a child to stop crying.

We're an adult, right? Children and adults. We also tell them there's no way you can stop crying unless you stop breathing first. So the nervous system, when you tell someone to stop crying, the nervous system hears.

The instruction it hears is stop breathing. And you can only imagine the implications of that traumatically, emotionally, psychologically, it means you're trying to kill me, right?

Because if you want me to stop breathing. If I stop breathing, that's the fastest way. Without blunt trauma, to kill someone is just takes, like 4 or 5 minutes, right?

To stop breathing. And guess what? You know you're a vegetable after that. So we have to be very careful, when we understand the nervous system, how the body regulates it, or we don't cry for no reason.

Right. And some of us need a good cry, right? In fact, when we do breathwork experiences, that's what they've been needing the whole time, is to just cry and release because they've been holding on to the trauma.

You know, our lungs, our diaphragm stores, our trauma, our lungs store our grief. And so it's not uncommon for people with trauma and, and grief or unresolved grief to also have cardiovascular issues because now they're dysfunctional breathers.

So guess what? Their heart has to pick up the slack. And now they start developing blood pressure issues or cardiovascular challenges in a variety of different ways.

So there's so many ways that this is all connected. And I know, like, we're just scratching the surface. We're just scratching the surface. We could talk about this for hours and, we're going to wrap it up because I want to pull us full circle on this stuff that you talked about.

That last thing you said, I was wondering, does that can that induce arrhythmias? You know, people with AFib and other kinds of arrhythmias or people are, you know, getting into that paradoxical breathing and heart rate kind of situation when they're under stress.

Yeah. You know what? That's a good question. And, because I'm a good student, I'm going to look that up. Okay. And, and, I'll certainly get back to you.

Nobody's asked me that, but I can, I can. That's a really great question. I just don't know the answer to it. But I will look it up and I will email you just so I have some closure around that as well.

I would imagine. So, like, my my suspicion is, yes. I just don't know the full mechanism. But, if I was a betting man, which I'm not, I would say yes.

And I will try to discover that mechanism for you. There is there is one more thing that I think is important for me to share. That may not get discussed otherwise.

So, I want to talk about how we're breathing when we're unconscious. So, in this case, I'm referring to how we're breathing while we're sleeping. So, you know, we're aware of how we're breathing during the day, right?

At least we can be we can create awareness around it, but we don't have conscious awareness around how we're breathing at night. And, you know, things like sleep apnea, snoring, dysfunctional nighttime breathing.

There's a spectrum, right? It could be mild snoring, severe snoring all the way to apnea where people stop breathing, you know, hundreds of times every night.

These are issues that create stress on the cardiovascular system, right? Imagine you stop breathing for 30s. Well, the heart's like, hey, where's my pump?

Like, what's going on? And so the heart has to pick up the slack. But it also leads to, you know, a whole bunch of other issues, including, hyper hypertension, including high blood pressure.

So if you're waking up with high blood pressure and blood, which, when, you know, if you're waking up in the morning, that's when your blood pressure should be the lowest.

You're just laying on your back, you haven't done anything active, and your blood sugar, you know, should be rising, but it's going to be pretty low because you haven't eaten anything, relatively speaking.

But if you wake up with high blood pressure and high blood sugar, chances are you were dysfunctional breathing at night in a fight or flight state. So how do we breathe and fight or flight?

We breathe through our mouth. How do we breathe when we're relaxed and meditating? Like Yogi, we would be breathing in and out through our nose. So the the important thing I want to share here is, especially people might have young children is the way your child breathes as a child will literally change the shape of their face, will change their immune system because the immune system starts in the nose, will change their oral health will change, their cardiovascular health will change, their behavioral health will change.

Their lymphatic health. So all these things are changing as a will change the way they feed as well, because some people have tongue ties. And so one of the things that is very often not discussed is the positioning of the tongue.

So your tongue, pound for pound, is the strongest muscle in your body. So and it's a powerful muscle philosophically as well. Right. Our tongue helps us taste food.

It helps move food around in our mouth. It also is responsible for allowing us to speak. Right. So it does. It does a variety of different things. And also helps us swallow.

But the position of the tongue also changes the shape of our face. So our tongue should be positioned in the roof of our mouth. When our tongue is positioned in the roof of our mouth and our jaw is in a nice, relaxed state, it actually pushes the hard palate outwards and forwards, creating a more open and patent airway.

Children who breathe through their mouths will have their tongue in the bottom of their mouth, and a result of that is, the face becomes narrow and when the face becomes narrow and long, a few things happen.

The jaw becomes retro, and so the jaw moves backwards. The airway becomes narrow. So people become habitual mouth breathers because breathing through the nose feels very, very restrictive.

And then they develop things like tonsillitis. They had their adenoids and tonsils removed, and you know, they end up having narrow faces or they end up having teeth removed.

Right. But removing the teeth might result in a perfectly straight smile, but it doesn't result in a nice open airway. So the position of the tongue changes the shape of our airway.

When we change, the shape of our airway, changes how much resistance we feel when we're breathing correctly through our nose. So my son would always complain about having a hard time breathing through his nose.

And so we we expanded his palate. He doesn't complain about that anymore. And so when people have narrow airways or when they don't breathe through their nose appropriately or often enough, they're more prone to sinus infections, believe it or not, because the body doesn't like stagnation.

Right? So people who are mouth breathing don't make nitric oxide. Their sinuses serve as a as a safe playground for bacteria to overgrow. And so they're more prone to sinus infections as well.

So like, you know, these are all things to to keep in mind. And then if the airway is narrow, then they become dysfunctional nighttime breathers. So this leads to snoring CPAp, all kinds of stuff.

So we recommend mouth taping at night where you're just putting a piece of tape vertically just like this, a $1 roll of three. And like report tape is all you need.

And that's going to ensure that your nasal breathing at night, that feels restrictive. Work up to it. Five minutes, ten minutes, you know, 20 minutes, half an hour.

Practical Breathwork Takeaways and Closing Advice

And then you can eventually work up to the whole night. But that's going to change your life. And it's it's almost like so simple that it's hard to believe.

But we have so many people reporting within days of mouth taping, how much different they feel. In fact, I was just at an event and we gave mouth tape out to everyone, and people would come to me the next morning saying, oh, I don't know what the hell happened, but that was the best night of sleep I've had in a long time. I'm like, well, guess what?

You're breathing correctly, which now sets up your metabolic system to feel more energized when you wake up in the day. Well, so much here, and thank you so much and for sharing so generously of all your experience with this, I just want to wrap it all together in a bow for everybody.

We started out talking about blood pressure, and we looked into nitric oxide and really looking back full circle, when we breathe correctly, we have the right microbes in our mouth, which will produce the nitric oxide, which opens the airways, which reduce SES, the pressure which strengthens the heart and reduces the risk for cardiovascular disease and stroke especially.

But stroke and heart attacks. So we have come full circle. So learn how to breathe if you want to protect your heart and reverse your heart. So I just want to end with like one minute.

What would you recommend? How do you recommend somebody who's listening to this and going, oh my God, this might be an issue. Maybe they have family history of heart disease, maybe they've already had a heart attack or stroke themselves, or have some sort of arrhythmia or whatever.

What's one thing that they can do to get started with improve their breath, to improve their cardiovascular system? Okay. So I'm going to give you two the first one I said already, which is mouth taping taping.

So that's what you do at night. The second thing you do is something called coherence breathing. So coherence breathing is where your tongue is gently placed at the roof of the mouth.

And so the tip of your tongue is just behind your front. Two teeth. And the rest of the tongue sits in the roof of the mouth. If you can't do that, it's possible you have a tongue tie, but that's a whole different conversation.

And when the tongue is rested at the roof of the mouth, you're going to breathe in for a count of six and breathe out

for a count of six. That's going.

That's known as coherence breathing. When we do coherence breathing, it puts us into a parasympathetic state. But what they also found is that's the breathing and respiratory rate that gets the heart and the brain connected.

And I think we need more heart brain connection for people. And it unlocks a whole new level of creativity and calmness and, and it just unlocks the best version of ourselves.

So I would recommend coherence breathing and. Coherence breathing, mouth taping. Thank you so much. Such. And make sure you read his bio when you look at his links and check out his resources because he is, you know, I think one of the, one of the people I know that knows the most in-depth information about breathing and how it affects everything.

We touched on cardiovascular, but we also touched on a lot of other stuff. So optimal nitric oxide, optimal blood pressure tape your mouth, learn coherence breathing.

And thank you again for being here. And we'll see you on the next interview. It's my pleasure. Thank you.