Trauma, Breath, and Nervous System Basics

Trauma and the breath. So first of all, when we go through a trauma response, part of what happens is that our breath stops. And you can think back at a moment perhaps in your life when you felt like something came at you so fast and it shocked you.

And it stopped your breath. It caught your breath. Well, that's what we're talking about today. We are talking about the breath and trauma. And when we become consciously aware of how we're breathing, get this.

You can actually find what stressing you out during the day and actually leading you to that either stress response or the trauma response by watching your breath.

So it actually can become a measure for you of what's going on in your system. The breath is a is a window into the nervous system, especially when it comes to trauma.

So there's a difference between the stress response and the trauma response when it comes to the breath. We talk about that a little bit in this in this talk with Dr.

Sachin Patel. And just briefly, the stress response is going to make your breath go shallower. Yeah, shallow but fast. Whereas the trauma response makes your breath go slow and shallow.

When you are in parasympathetic, which is where we all want to be, because that will be when we are our best selves and in our best health, our breath will naturally we won't need to force it.

Our breath will naturally be deep breaths and I would say medium, right? Like they're not super slow, but they're not fast either. But they're they're deeper.

And all of that comes into play with the heart giving the heart a hug with every breath. And what that does, even for processing things like grief or getting through difficult emotions where we can feel like our our heart is heavy, that actually has more to do with the breath than what you may have thought.

So to join me in this conversation and unpack this topic is Dr. Sachin Patel, someone who I have come to deeply respect because of his own way of living that he's done, but then also how he has made his career now into helping other practitioners live their best lives and have their best practice.

And one of the topics that he's driven deep into is around Breathwork, and he will even guide different Breathwork sessions. I've been through some of them and it's fascinating for me to see the depth of what we can understand about the body with our breath when we become aware of it.

One of the things that you're going to learn at the very end of this talk is mouth taking at night.

Breathing Patterns as a Diagnostic Tool

So don't forget, don't miss that last part of this interview and all of the ways in which we can help shift our nervous system when we become consciously aware and can use our breath not only as a sign of where our nervous system is at, but as a tool to get it back where we want it to be.

Let's jump in. So, Sachin, what I've noticed is that the breath is directly affected by trauma and even people will talk about that and they'll say like in that moment, like it caught my breath.

It felt like my breath stopped. And we see that a lot and we see the impact that that could have. Because then, of

course, if someone is chronically still in that trauma place, their breath is going to be a lot more shallow, which has implications for their digestive system, their lymphatic system, cardiovascular system.

Everything is going to be affected. So what have you seen in terms of the patterns of breathing that people that people may have, whether or not they realize that they've had stress or trauma in their life?

Great question. So one of the things that we notice and the first thing we pay attention to is how are people breathing? Are they breathing through their nose or are they breathing through their mouth?

It's about 50% of the population, according to James Nestor is somebody who breathes through their mouth. And what's really fascinating is that that that's the way I would breathe if I wanted to increase my body's stress response, to increase my, you know, sympathetic, dominant state.

And so a lot of times we'll pay subtle attention to that. So when you're doing it, when if I'm doing a Zoom call with somebody or if I am speaking to them in person and observing them without me letting them know so they don't change their behavior, I will pay attention to how they're breathing.

Now, one of the things that we'll also notice and it's important to pay attention to, sometimes people will be habitual nose breathers, but then you'll say something and they'll start breathing from their mouth and it's subtle.

It really is that subtle. So paying attention to that can help us identify triggers, but it can also help us identify if their breathing is more sympathetic, dominant.

And that leads us to probe a little bit deeper where that might be coming from and, you know, raise their awareness as well. Because one of the cool things about breathing is not only is it a it can be it can be a diagnostic tool, but it can also be a tool for us to manually override should we choose to.

Now, I know one of the things that you and I both agree on is getting to the root cause. So why is somebody breathing that way is the most paramount question.

However, if we do get them to shift the way they breathe and pay attention to it a little bit more closely, they can actually consciously override that, you know, sympathetic, dominant response, shift themselves into a more parasympathetic state.

Should that be the desire? And in that state, they actually have a lot more clarity. They can quiet their mind. They can start producing different chemistry in their body that helps them feel a little bit more relaxed, less, you know, alert.

And in many cases, when we're out of that fight or flight mind, we get more creative, we get more clear, and we become, in my opinion, better tuned to our higher self.

So we pay attention to how people are breathing and ask them to, you know, use it as a mechanism to facilitate their healing and gain a little bit more clarity on what's going on with their body and in their life as well.

So a couple a couple of things came up for me. One, I want to ask you about now taping at night. But what I want to ask you about first is the different patterns that you're seeing, because with the sympathetic stress response, typically what I think would be the breath pattern, correct me if I'm wrong, would be that the and breathing faster and shallow, whereas when a person goes into like the dorsal vagal response in that collapse or the trauma response, their breath becomes it's still very shallow, but it's also very slow.

And I'm trying to think back on when, you know, like when I recognize that my body is in that place. Was I breathing out of my nose? Was I bring it out of my mouth?

I think that I was breathing out of my mouth. Where? Where? Yes, like my my breath became very slow, very shallow. And yet I think that I was breathing at my mouth.

And I'm wondering, like, oh, that's something that you've seen along the way and working with different people that with the difference in their breath pattern between the stress and then this collapse or the dorsal vagal response.

Yeah, I mean, not that I've specifically paid attention to, to be honest, but to speak to what you're saying. Usually what we find is when when people are in that fight or flight response, it's short, shallow breaths and they're more if we were to look at them on a graph, they would be very jagged breaths, sharp breaths.

And when they're in that dorsal state, then they're going to be more wavelike and weaker. Right. So the depth is going to be different. The length of the breath is going to be a little bit different.

And of course, it's like a message that we're sending to the body.

Heart Rate Variability and Breath Awareness

Right? It's like a it's like a signature of the nervous system and the way we breathe is is kind of like an EKG. It tells us, you know, how our just like an EKG tells us how our heart is working, looking at somebody's breathing patterns, the depth of the breath, the cadence of the breath can tell us how their nervous system is functioning.

So really, the way somebody breathes is a window into their nervous system, you know, unconsciously, right. So they're not consciously paying attention to it.

We are, but they may not be. And when they're conscious, they're using their breath. Then it becomes a almost like a treatment, you know, I'm afraid to call it that, but it becomes a modality for somebody to use to be able to shift their state when the timing is appropriate for them.

Yeah, they can use that as a tool when they become consciously aware of it and it. How is your connection with the breath and these different breath patterns but the heart rate variability, because I feel like the heart rate variability is another window into our nervous system.

Mm hmm. And in my experience, and I'm hoping that you have a different experience so that you can educate me on something that I have still not quite figured out.

But that is, I have not seen that much difference in the heart rate variability between the stress response and the jagged breath pattern and that dorsal vagal response and the the more curves, but yet shallow, weaker curves.

To me, when I've been measuring it, it seems that both of them have the same effect of just lowering that heart rate variability. But I haven't been able to notice a difference the that I can tell them the heart rate variability.

I still have to come back to the breath and notice what is the breath doing to really kind of find out these more subtle changes in the nervous system?

Yeah. Maybe you could rephrase that. I'm not sure what you're asking. Have you seen any differences in the heart rate variability between these different breath patterns? Hmm.

So usually when we prescribe hrb to our clients, we're having them use it as a muscle building tool, for example. So we're not using it necessarily as a diagnostic tool when we prescribe it to people, but we're using it as a prescription for them to be able to get biofeedback and neurofeedback really from how they're breathing.

So we have to manually use it and use different breathing patterns to get into states of coherence.

Switching to Nose Breathing and Tongue Position

So that's how we're using it in our practice versus using it as a diagnostic tool to determine, you know, what what state of, you know, of the nervous system that they're in, whether they're in their dorsal or ventral, Miguel. Mm hmm.

So then a person say becomes consciously aware that, oh, my goodness, I'm a nose breather or I'm a mouth breather. What point at what point should they be changing that?

Can they just change that immediate? Can they notice, like, oh, I'm breathing out of my mouth right now and immediately just start shifting to nose breathing?

And how soon can they expect to feel a difference in their nervous system? Yeah, that's a great question. So one of the first things that I would suggest is if they do find themselves mouth breathing is to take a moment and pause and ask themselves what they were doing, what were they doing, what were they thinking about or they checking email.

Right. So maybe it's a way to clue send that email puts them in that sympathetic, dominant state where it did. They just have a frustrating phone call with somebody, right?

Are they outside going for a walk and exceeding their metabolic upper limit? Right. So if we find ourselves not being able to breathe through our nose during exercise, we've exceeded our metabolic upper limit.

So a lot of times people will resort to breathing through their mouth instead. And what that really means is we're overexerting ourselves and creating more stress on our bodies than we should be.

So, you know, the activity that they're doing, the thoughts that they're having, you know, the the environment that they're in, those are things that they want to pay attention to because that can subtly clue us into what some of their triggers might be.

And then once we become aware of that, because breathing through our mouth is, you know, I don't want to exaggerate and say one of the worst things that we can do, but once we become aware of it, it is actually something that's so easy to change and so instantaneously beneficial that it becomes almost criminal for us not to do it.

There's nothing easier for us to change than how we breathe. Now, if you're if you're somebody who hasn't been breathing through your nose for many, many years or a habitual mouth breather, at first, it's going to feel a little bit weird when we just close our mouth and go to start reading through our nose, especially if we've had a deviated septum or any issues like that.

So, you know, there's obviously other reasons. Medical reasons why people may become habitual mouth breathers. But assuming those circumstances are not the case, what we want to pay attention to is that when we breathe through our nose, it's always going to feel more resisted.

And so because we have, Turbin adds, because of this intricate structure inside of our skull that pressurizes the air, that's a normal feeling. But for some people, it's not going to feel very comfortable or it's going to feel very different and they're going to feel like they're not breathing enough.

And I promise you that that is likely not the case. So we want to want to start by becoming aware of what's causing that breathing pattern. Secondly, want to become aware we want to put our tongue in the correct position so that tongue in the correct position automatically seals the mouth and relaxes the jaw.

So where our tongue should be placed is in the roof of our mouth, and the front of our tongue is gently touching the back of our front teeth. When our tongue is in that position, it seals our mouth.

So you can try it yourself, Dr. Aimie, and you can try to breathe in and out with your tongue in that position. And you see that it just it just seals it.

So when we put our tongue in the correct position, automatically we start breathing through our nose. Our job becomes relaxed when we relax our jaw. That also sends a message to our body that we are safe and it kind of shuts off that fight or flight response as well.

So it's going to put our body in a more, you know, relaxed and Harrison pathetic state should we need that but we breathe through our alcohol. I was just going to say it's true that we can tend to carry a lot of stuff in our jaw and one of the exercises that I lead in the 21 day journey, which is kind of like the basic exercises for for how to work with your body.

And the nervous system is directly with the jaw. And people are always amazed at, whoa, like, I didn't realize how tense my jaw was. Like, it's just not something that they paid attention to before.

And so especially I can imagine that with someone who is maybe a chronic mouth breather and their jaw is always tense, how much they're carrying, just, just with that can?

Yeah, absolutely. 100%. We carry we carry, as you said, a lot of tension in our jaw, in our in our neck and in our shoulders. And we can feel almost instant relief when we correctly place our tongue in the right position.

And what's really interesting about the tongue is it's actually a postural muscle. So when we place it correctly in our mouth, it holds the front of our head up and takes a lot of tension out of our neck and shoulders, which is another place that we can sometimes hold stress and trauma and negative events and circumstances in our life.

So really, really simple thing. Now, one thing I should mention that may be relevant to some of our listeners is something called a tongue tie. And if you're having a hard time right now, putting your tongue at the roof of your mouth, then you may have a tongue tie.

And a tongue tie is a little friend. You live on the bottom of your tongue that in some people is more adult, more prominent, and that doesn't allow them to move their tongue adequately in their mouth and sometimes even place it in the right place.

Signs of somebody who has a tongue tie would be somebody who had a hard time latching or breastfeeding when they were a child because they couldn't open their mouth wide enough in order to do that correctly.

So all you have to do is lift your tongue, look towards the bottom. And if you see this straight ligaments structure from the bottom of your tongue to the bottom of your mouth, then you may have a tongue tie and that might be something worth addressing.

It used to be such that midwives would have a longer pinky finger and they would swipe the baby's mouth and cut all the ties and and then it would be a non-issue.

But they don't do that anymore. And it's something that some people don't find out that they have until much later in life. And I'm thinking like that would just be another example of, you know, you're carrying something, your body has something that you're not even aware of, and yet it's almost promoting stress because of the changes that it causes in your breathing, in your neck and shoulder muscles.

And so how important it is to find all these things that actually just contribute to us living in a stress or trauma state or in that parasympathetic state.

Diaphragm, Lymph Flow, and Blood Pressure

Yeah, and here's the thing. If we're even if we haven't experienced trauma, right? If we're in that stress state because of the way we're breathing, then we process a traumatic event differently.

Very differently. Right. So we could we could be set up for I don't want to say failure, but we could be set up to have a much stronger imprinting of that negative emotion or that negative event, because our bucket our stress bucket is already pretty full and it doesn't take much to get it to overflow.

I call that being predisposed. Right? Kind of like like a genetic predisposition where it doesn't guarantee that you're going to get it, but you're just predisposed.

So I call this up in some of the biology stuff, like we can actually predisposed to experiencing life events as traumatic because we're going into the situation with our bucket already full.

As you say, it doesn't take much for our system to become overwhelmed with that. One more thing. Absolutely. For those who are or I should say, become nose breathers after having done mouth breathing, do does their breath slow down?

Is that part of transitioning to nose breathing or no, if done properly like it should, it shouldn't actually cause slowing of the breath. Great question.

So because of the pressurization that takes place when we inhale and exhale through our nose and the it's it's going to create a natural resistance. It's going to slow down the amount of air we take in and the amount of air that we put out compared to our mouth or mouth has little to no resistance.

Right. So air can move in and out very quickly. But what happens when we breathe through our mouth is we're packing that air down. And so one of the main reasons we breathe, the main reason we breathe isn't to actually take in more oxygen.

The main reason we breathe is to get rid of carbon dioxide. So removing toxins is is the primary reason that we breathe. And then, you know, so when we breathe through our nose, we're going to be able to clear the air much better as well.

And when we breathe in, we're going to be able to take much deeper breaths because the air is more pressurized. So we're getting that air that kind of packs itself at the bottom of our lungs that generally tends to have a higher concentration of CO2.

And we don't move it as effectively when we breathe through our mouth. So breathing through our nose is going to slow down our breathing because of the natural resistance that takes place and the pressurization that takes place.

So then with all of this breathing, what's happening with the diaphragm and why how how does the diaphragm come into play and why would that even be important for people?

Yeah, great question. So the diaphragm is one of my favorite muscles and it's one of the muscles we can't see. Right? We can definitely exercise it and get it to work out, but we don't see it.

And so it if we if it's out of sight, it's out of mind. But what I invite people to do is, is actually understand the diaphragm is probably one of the most important muscles in your body, because one of the things that it helps us control is lung capacity.

And lung capacity is the greatest predictor of lifespan, according to the Framingham Study. So we know that the depth at which we can breathe plays a huge role in how long we're actually going to live.

But until the moment we you know, until that moment where we take our last breath between now and then, your diaphragm plays a very crucial role in helping regulate things like cardiovascular health and also in promoting the health of all the trunk organs.

And I'll explain and I'll unpack that here in a minute. So the diaphragm is known as the second heart. 40% of our blood pressure that's created to circulate blood in our body actually comes from the movement that occurs in our diaphragm.

So our heart literally sits on top of the diaphragm and is in an envelope in our lungs. So every time we take a breath, when we take a deep breath in our heart, actually gets a hug from our lungs.

And then as the diaphragm moves up and down, it's also mechanically assisting the heart and doing its job. So when we breathe correctly, it naturally lowers our blood pressure because our heart doesn't have to work as hard

when we breathe correctly, especially through our nose.

We also increase something called nitric oxide. Nitric oxide is a vasodilator, so it dilates blood vessels, thereby further reducing blood pressure and what it also does is it opens up blood vessels in the periphery.

So what is the periphery? Our toes, our nose, our fingers and our brain. Right. The outer regions of our brain are some of the hardest places to get blood to because your heart has to work against gravity everywhere else.

Gravity is working for you except to get blood to the brain. And so if we breathe through our nose, we're increasing nitric oxide production, which makes it easier for us to create healthy circulation in the body.

And no matter how healthy you're eating, if you can't get blood to the region, you're not going to be able to nourish that part of your body. So if we want a nourished brain, we have to breathe correctly.

The next thing that happens is when the diaphragm moves up and down, it's actually pumping lymph out of the trunk organs. So every time we take a nice deep breath in, the diaphragm moves down and it actually acts like a piston squeezing the organs in the trunk.

So our liver, our pancreas, our spleen, our intestinal organs, they're all being gently massaged and as they're going through that process where they're being gently massaged, the lymph that accumulates in these organs is being moved out as well in our arms and legs.

Our lymphatic system is woven into our muscles. And so that's how our body takes waste from the periphery and send it back to the trunk. But our organs don't have muscles that wrap around them.

They have a big group of muscles like our abdominal muscles and our diaphragm and our pelvic floor that encase this region. And so when we take our nice deep breaths and correct breaths, then we're actually providing lymphatic flow.

And so as as far as I know, cancer and heart disease are the number one and two killers still in most developed countries. And both of those issues can be tied back to improper breathing.

I'll share a quick story. We had a client who's on three blood, actually, it's a practitioner that we train whose client was on three blood pressure medications.

Blood pressure was 158 over 71. Right. So his systolic was always high. Even on the medication, she did 10 minutes of breathing and it came down 30 points within four days of breathing correctly.

His blood pressure is completely normal. So we can see radical shifts in people's blood pressure. Even those who are on medication and the medications aren't doing the full job that they could be.

It's because their diaphragm is weak and there's no pill for a weak diaphragm. So if we can get people breathing properly, exercising their diaphragm, strengthening it, then it'll bring their blood pressure down significantly in a very short period of time.

All right. So here's what I'm thinking. Many people describe the their trauma response in that in that moment of going into the freeze and then the vagal collapse as it feels like their heart like lost the support underneath it.

Like it feels like their heart just kind of speaks and I've always thought that, well, that's part of the diaphragm. Like the diaphragm just kind of lost some of the innovation from the vagus nerve.

And it's been told to kind of shut down that right now we just need to conserve energy. And that's part of why the breath becomes very slow, very shallow, is that the diaphragm is just like it's not it's not moving much.

Grief, Gut Health, and Breath Restriction

And yet it seems like it would also become just very weak and very flabby. You know, like I remember when I was doing surgery and the diaphragm would at times and some people just seem like it was a very weak muscle, flabby muscle.

And and now with kind of this greater context around know, like your heart is supposed to get a hug from your lungs with every breath and then with that diaphragm moving up and down like it's actually helping to regulate this whole system and keep us at our optimal health.

And I mean, does that does that resonate with kind of your clinical experience? Is that like it's possible that this trauma response is actually making the diaphragm just become weak and and it can feel like the the heart isn't getting that normal pressure and that movement that the diaphragm would normally bring in when it's healthy.

Yeah. So you bring up a great point. So when we think about somebody having a heavy heart, right, it's that diaphragm isn't working. So their heart feels feels heavy to them.

Another thing that we want to point out that I want to point out is that in Chinese medicine, the lungs represent grief. So somebody who has a is experiencing grief or hasn't overcome grief, their lungs are going to be where we see that.

And again, that's going to tie back to the diaphragm. Right. So I totally think that we're on to something there. Which is very helpful for me to hear you say that, because in the grief work that I do and the journey that I lead people through in that grief module, it's all about the diaphragm.

It's all about working with their diaphragm, both in terms of the lymphatic flow and even some of the information that might be coming up from the gut and how that would impact the diaphragm, because I imagine that that that is also a deterrent for the diaphragm even wanting to drop down into the belly if it's full of inflammation and it hurt.

So I like I don't want to drop into that. And plus, the inflammation makes things more rigid as well. And so it's going to take more pressure, more work, more effort for that diaphragm to drop down.

And so, again, like, you're seeing the impact on the breath, but then even this larger impact on the heart and the cardiovascular system and grief. Yeah, 100%.

And you know, this kind of reminds me of some clients that come in and they have, you know, massive amounts of visceral fat or somebody who's experiencing like SIBO.

So they have a lot of bloating. Right. And it almost hurts for them to breathe fully. When I see somebody with, you know, kind of a beer belly, I'm like, man, this poor person's diaphragm.

It's like just jammed in there. It has nowhere to go. And, you know, their abdomens protruding because there's nowhere for all that fat or that that inflammation that, you know, food that impact that stool like all that stuff, there's nowhere for it to go.

And the diaphragm, the poor thing is just sitting there. It's like, dude, I can't move. And of course, these people are on high blood pressure medications and a whole bunch of other things like cardiovascular medications.

And of course, they might even be digestive issues, you know, digestive medications like things for heartburn. And it's because they just don't have any room for things to move around.

And when the diaphragm can't move correctly, then you're kind of stuck in this, you know, stress response type, breathing short, shallow breaths because there's nowhere for it to go.

And it's unfortunate because then that leads to a cascade of things, right? It leads to hypertension and high blood sugar, insulin resistance, low stomach acid production.

There's this domino effect that takes place as a result of that. So then we come to what can people do, right? So we've given them a long list of things that this there are all the things that it can be affected and affecting.

Practical Tools: Mouth Taping, Box Breathing, and Laughter

And so it seems from this conversation, a simple way for people to start is just to become consciously aware of how they breathe and then change that if they notice when they are mouth breathing and take that moment of pause and be like, What was I doing that may have caused me to go into this stress type of mouth breathing?

Yeah. Excellent. So so first things first. I would say yes. Pay attention to how you're breathing. Ask yourself even right now, how am I breathing? Am I breathing to my nose or my breathing through my mouth?

Am I breathing with awareness or am I breathing with I'm breathing unconsciously? Right. So the breath is something that we can do consciously throughout the day.

So I invite everyone that whenever they're feeling anything in their body, the first thing they can ask themselves is, What's my breath doing? Because we can override that immediately.

The impact that our breathing has on our health is instantaneous, right? So food takes a little bit of time to get digested and assimilated into nutrients.

Supplements can take some time, but breathing happens instantly. Going outside, getting some fresh air, right. Like when they say, you know, that's the first thing we say, go outside and get some fresh air, take that deep breath in and let nature heal you and support you.

So getting outside more, breathing in fresh air so it's not just how we breathe, but the quality of the air we breathe, where we're breathing it, the environment that we're breathing it, it also makes a big difference.

So if somebody if I tell someone to do some breath breathing outside versus in their office, where that's where they experience the most amount of stress in their life is in their office or in their in front of their computer.

We need to sometimes change our environment and that will automatically change our breathing signature as well. Among other things. So when we change our environment, it changes the way we breathe.

So get outside, get some fresh air, move around a little bit, have a space in your home that could be a dedicated spot for you to, you know, sit and unwind a little bit.

That self-care is going to be crucially important for all of us to participate in. The other thing you mentioned, but we didn't get to was mouth tapping.

So sometimes, even though we might be conscious, knows breathers throughout the day based on, you know, the way we sleep, the position we sleep in, some of us may find that our mouth is open while we're sleeping at night.

So something as simple as mouth taping guarantees that you're going to be breathing through your nose while you sleep for hopefully 8 hours each night.

And so you just basically take a piece of tape three, a micro part tape, and you place it vertically on your mouth. So we're not trying to seal your mouth. Right.

So this isn't hostage tape. It's mouth tape. And so we're just going to put a little strip like this that works even for people who have facial hair. And you're still going to be able to breathe through your mouth.

You're still going to be able to speak. So it does it's not disruptive in that regard. It's not doesn't create claustrophobic issues. And but what it will do is keep your jaw in a relaxed, close position while you sleep.

Some people might start dreaming again, but one of the greatest benefits of reading through your nose while you sleep is that you're going to have to wake up less frequently, and in most cases, not at all to use the bathroom at night because you're going to drink less water when you start breathing through your nose because you're not going to be as dehydrated.

So when we breathe through our nose, we recapture about 30% of the moisture that we breathe out our mouth doesn't do a good job at that. So we always feel thirsty because we always feel thirsty.

We end up drinking more water. And by drinking more water, we have to get up more in the evening to go to the bathroom. So breathing through our nose is going to help us get less dehydrated.

And it's going to modulate a hormone called vasopressin, which is going to make us go to the bathroom, much less in the evening so we can get deep, restful sleep.

And we all know how important, deep, restful sleep is for us and also for our partners. And getting up in the middle of the night is something that affects a lot of people's quality of life and creates a huge domino effect.

Believe it or not. So mouth taping is another tool that people can use. I also like box breathing, you know, there's literally a breath for every way we want to feel.

So if you want to feel more energy, there's something for that. If you want to have a psychedelic experience as a breath works for that. If you want to calm your nervous system, there's breathing techniques for that.

You know, I look at things like laughing as breath work. I look at things like crying as breath work. Sometimes that's what we need. We need a good cry.

And the breathing pattern, the breathing signature of crying is actually a way of releasing trauma from our bodies. Laughing right. Releases certain hormones.

So even if there's nothing to laugh about, there's actually something called laughing yoga where people go there and they just laugh for an hour and by the end of it, they're in tears.

You know, one of the things that's interesting about about stimulating our vagus nerve is when we do it correctly, we start tearing up. So this is why gagging ourselves causes us to tear, because we're the centers in the brain stem are the vagus nerve inserts right next to the part of the brainstem that makes us tear up so we can we can get.

That's why when we laugh really hard, we get such a huge stimulation of the vagus nerve that we start crying. It brings tears to our eyes, tears of joy, of course, but, you know, laugh till you have belly aches and tears.

And that's that's a really good, simple thing that all of us can do. And we all need a good laugh once in a while. What a powerful conversation. And it's true that we hold so much in our jaw, we hold so much in our gut and so much of our diaphragm are actually helping, contribute and may even predispose us to a trauma response.

And, you know, as I've worked with people going through the 21 day journey now thousands of people are going to the 21 day journey. And I see the changes in their breath over that 21 days.

Many people start that 21 days and they do not get a spontaneous, deep breath. With the exercises that I lead, they're noticing that I am getting deep, spontaneous breaths.

They're noticing that the mentors within their breakout sessions are getting deep, simultaneous breaths, but it's not happening to them. And they wonder why.

And of course, it's key that these breaths are spontaneous. They are not forced. And yet for some people, it's a few days in. For some people it's been at the end of those three weeks.

But just with doing these exercises, doing the work, doing the somatic work is where we start with the trauma work in that 21 day journey. And by doing those exercise phases, we're not focusing on the breath at all, really not working with the breath at all.

And yet what changes is the breath? And we start to get those deep, spontaneous breaths as a result of doing the work. And then we can start to use that as a way to track our system and measure where it's at and know which state of the nervous system it's at.

So I hope that you take something away from this talk and that would be just bring to your conscious awareness what your breathing pattern is, your mouth breathing.

And if your breathing seems shallow, if it seems slow, if it seems fast, bringing that to your conscious awareness allows you to have more understanding of what may be going on in your body.

But then, as you see, like this is a huge topic to unpack and all the things that go into influencing whether our breath is one of threat or whether our breath is promoting that sense of safety and what may be informing our diaphragm of what types of breathing to be doing.

Either way, I encourage you to try something from today, whether that's to change from the mouth breathing to nose breathing. When you notice that during the day or even doing mouth typing at night and seeing if that changes your sleep, for me, it changed my sleep dramatically.

So I will never go back. I am I will now be mouth tapping because of the differences that I feel when I wake up as a result of having made sure that I am doing that parasympathetic nose breathing all during the night until next episode.

Thank you for joining on this Biology of Trauma Summit 3.0 where we are exploring the trauma disease connection. I'm your host, Dr. Aimie and I will see you at the next interview.