Quarterly recap and episode highlights

Welcome back. I'm Natalie Nidam, your host. Today's episode is a little bit different. We, the team, and you are doing a quarterly recap. we've pulled together some of the most impactful conversations that we had recently.

Episodes that really push the needle on how we think about longevity. from rethinking weight loss through the lens of personalization and GLP-1s to understanding why heart health issues often go unnoticed in women, to mitochondrial transplant to cure diseases, rare and eventually, hopefully, we think, common diseases to how your body holds and uses trauma and its connection to your physiology, to an amazing supplement discovery that is simple yet does a great job of healing depression, anxiety, and many other ailments that COVID may have left behind.

Because the truth is, as you all know, longevity isn't just about one breakthrough. It's ultimately about patterns. it's about connecting the dots across conversations and seeing how those insights start to stack.

So in this episode, you will hear some of the most important moments, biggest mindset shifts and most actionable takeaways from the past few months. Now, this is brought to you by Mito Pure Gummies by Timeline, Quantum Upgrade and Just Thrive Daily Gut Detox, all with very special offers just for you, the listeners.

Check out the show notes below for details and enjoy the episode. In episode 401, Ashley Koff breaks down why GLP-1s are not a standalone solution.

GLP-1s as part of personalized weight health

Checkout this clip. You're saying, look, a GLp-one could be the thing for you, but maybe the things that you need. But guess what? If we just slap a glp one on top of crappy digestion, poor nutrition, bad hormones, acid reflux, all the you might get smaller, but you're sure as hell not going to get any healthier.

And that's where we're seeing the fallout of everybody saying, well, look, you know, this person, they lost all their muscle and their bones turned into like dust.

Yeah. Now they're worse off, which So can we just kind of wrap up a little bit? Yeah, and we have a great understanding of this if we look at diabetes.

So I'm going to comment on another one because I really want people to take away that the medications, the set that we're talking about today, semiglutide, terzepatide or liraglutaride originally, that's the only ones I want to reference for a moment, they're biosimilar hormone replacement therapies.

Let's just look, let's think of If you are a type one diabetic, we know that your body doesn't make insulin. So you will die unless you have insulin, and so we have, thank goodness, synthetic bioidenticals.

That's different, but we also have a synthetic hormone replacement. For that individual, they need it. They need it for the rest of their life, but they also eat and live their lives to manage it.

There are some caveats or some people that are using other things. For the most part, for broad strokes, this is what we're talking about. Then we have type 2 diabetics.

Some type two diabeics actually do need insulin. And some type two diabetics use other medications and some types two diabetes manage or even resolve their diabetes using diet lifestyle and like basically being able to figure out how to optimally resource the body, right?

This is the exact same thing that is at play here with our weight health. There are, and when I went in and I looked at suboptimal function, I figured out how we can actually assess the function of these hormones, because remember, they only stay on for two to five minutes.

We cannot do that with a lab test. So I created a clinical assessment. It's in the book. And when we look at that, some people, their function is completely, it's completely dysfunctional.

So suboptimal has dysfunctionally delayed or suppressed. And if it is dysfunction, I don't know that we have the ability today to actually find out, do you just not make any of this hormone.

But if it's so dysfunctional for you and your body's whole system, the whole ecosystem is demonstrating such suboptimal function that we come in and we use this and say, you know what, right now let me start with a weight health hormone replacement for your because it is going to help us help you make all those other choices just like we do with insulin with the diabetic.

But we also then talk to you about, hey, I'd rather than instead of apple juice, you eat the apple. I would rather that you don't have unprotected carbs and you have your apple with almond butter.

And we start to do the teaching and the stuff that maybe they even knew before, but didn't feel like it was possible. We're able to. It wasn't working.

That's right. You didn t have it to begin with. Like if you're lacking the GLP-1 functionality in your body right out of the gate, that is part of, the nothing is working problem.

That's exactly. And there's a genetic component. There's the, you know, like me you run antibiotics, there are all these other pieces. In delayed, it might be that your bodies producing them and it may be like a little bit of two things.

It could be, having a motion detector in a world where there is a stampede running in front of your motion detectors. like makes it difficult having a world where I don't have access to some of this, you know, two things that help me be healthier living in a body where i have, a lot of earned trauma and my vagus nerve function, and some these other pieces.

So there may be reasons that there's a delay here and in that person may maybe starting on the agonist with a lower amount or maybe using a supplement like, you know, an Amerisade or something where it's giving us, a little bit higher amount of, like maybe that's where we're going to be on that part.

And for the person where its suppressed, meaning that yours is operational, but your other choices are dampening, I'm not sleeping or I am drinking alcohol, or doing other things, and I'm not able to let m or an eating food that's n like, you know, whateve might say, I don't think you what I will say is the I' because those that are i right now with the, they hormones are suboptimally dysfunctional, you know, that might be as much as 25% of the population.

Okay, but we still have another 60 or 70% Of the Population that is in the delayed and in this suppressed. And if we have a conversation there that we only tee up the a GLP-1 agonist as a solution, it's ridiculous in that part.

Even in someone where they're having where it is dysfunctional, It is not the solution. It's the enabler for the personalized plan to work for them. And in somebody where its suppressed or delayed, yes, you might experiment or you may benefit and you use the aganist, but we absolutely have to do all the other optimizations on that to help you build that more robust system, because if we don't do it, we're not going to see the outcomes be like, I was kind of like laughing the other day.

I don' know if this is gonna sound bad, but I'm not laughing at all, and I wanna be clear, about anyone's hopefulness that GOP ones could slow the progression of Alzheimer's.

What I was laughing at was that the belief was, if we don't do anything else and we just put someone on an

agonist, can we alone slow the progression of Alzheimer's?

And in my, like, both of us were like our brains are blowing up right now. And, in that space, on the one hand, amazing things could be happening because If we're optimizing blood sugar regulation, if we are reducing inflammation, helping somebody's brain actually be less saturated with food noise and with all these other things, what goes across the blood-brain barrier may actually less problematic.

But here's the other piece. If you're shrinking body fat, you are releasing a heck of a lot of toxins. And if the body isn't eliminating those toxins and isn' able to, and you know, we're slowing elimination or we don't have optimized detoxification, that's not better.

If we are not giving the to your point of building before, if we aren't giving body resolvins and glucoraphanin or what it needs to make sulforaphane to upregulate, you know, healthy blood b regulate glutathione and We're not promoting the b from an Alzheimer's brain space where we are with th they they are in and of the If you're using a sauna and you are not following a specific protocol around it, you may not actually be supporting detoxification properly.

And that's a problem, because the difference between a session that just makes you hot and one that genuinely moves the needle on your health comes down to a few key steps that most people are not putting into practice.

So I put together my complete sauna protocol. The exact pre, during, and post-session routine I follow myself. And I'm giving it away completely free.

Now this is not a generic guide. This is what I actually do. So, of course, you always want to do what's best for your body. But if you want see what I do and to download it now for free, just head on over to natnidam.com forward slash sauna.

That's n-a-t-n-i-d-e-da-m dot com forward-slash sauna and check it out for yourself. In episode 414, Dr. Regina Drews speaks to us about many critical heart health strategies.

Now, this episode, for some reason, didn't catch as many of your attention as I anticipated. And people, I really felt that this is really critical and free advice from a highly experienced integrative cardiologist.

There aren't that many integrate of cardiologists around. She has seen it all. So in this clip, she's breaking down how different kinds of fat actually impact our heart.

If you find this interesting and you want to learn more about Dr. Drew's, make sure to check out the full episode. Tectopic and epicardial fat. So fat stored around the heart and organs.

People are starting to get their heads around this, right? We've talked to it and speak to very often as visceral fat, I think, certainly for the fat around How do you explain what it is and why the heck it's so dangerous from a longevity perspective?

Great question. Maybe these are almost medical terms, so let's educate people on what those medical term are. So ectopic sort of means elsewhere and epicardial means on top of cardiom and your heart, your cardium.

And I talk a lot with my patients and in my book about something called sick fat disease. And that's what I want the listeners to remember that sick, fat, disease is the inflammation of fat.

This is a newer concept, right? Because before we thought, well, people, they start to pile on that fat internally in between the organs. that's your visceral fat in the organs, that your fatty infiltration, for example, liver fatty filtration.

And of course that damages the organ if there's too much of it because they're just not functioning properly. But now we also know that the reason for that damage is that it creates these areas of inflammation locally.

And that's how the damage happens. So there is an inflammatory, yes, there's an Inflammatory phenomena happening. And what we started to understand with regard to heart disease, for example, and you know, heart diseases, not just coronary artery disease.

Heart disease could also be structural. Valve disease, for example, heart disease would be electrical, like atrial fibrillation, right? A very common arrhythmia.

So what we've begun to, and of course, a big part of structural heart is heart failure, which is one of the most devastating types of heart diseases, very much on the rise, especially in women.

that specific type of heart failure that's on the rise in women, so-called obesity, phenotype heart failures, very difficult to treat because the kind of mainstay medications for heart failing, the older medications were for a different type, right?

So what we learned from some of the recent literature is that there is fat infiltration of the heart muscle. There is a fat that surrounds the coronary arteries.

This fat is not inert. These fat actually is sick and so sick fat disease, because this fat secretes a variety of inflammatory mediators that lead to critical inflammation.

whether it's in coronary arteries or in the heart muscle itself, inflammation leads to plaque progression, leads the fibrosis, and so we see these clinical phenomena emerge.

And this is one of the reasons why I actually changed my opinion on glyps and gyps, the medications that are basically making pharmaceutical manufacturers richer than ever, Right.

So you call them glyps and gyps, just for the audience, these are GLPs and GIPs. These are the peptides of the decade at this point. The peptide of millennium.

Heart health, menopause, and hidden fat inflammation

But you know, so I changed my opinion on these medications because The clinical trials have started to report that there are effects which are independent of weight loss, and these effects are due to anti-inflammatory properties of these medications, including their ability to turn off the inflammation in that ectopic or epicardial fat.

And does it reduce the ectopic and epicardial fat as well? Some earlier studies using cardiac imaging techniques have started to show that. So the point is that I sort of changed my mind on this because I said, well, this isn't just about weight loss, although weight Part of it has its benefits, but as cardiologists and a lot of longevity physicians will tell you that weight loss in and of itself is not enough to reverse a lots of cardiac conditions or even cardiac risk factors, right?

So it's just not a magic bullet that people think it is. Again, that's sort of the example of that linear thinking. If I lose weight, I'm going to be better.

For some people it works very well and for other people not so much. But what we find is that these medications appear to have other effects that are more powerful than weight loss, and that's silencing or turning off the visceral and inflammation, which is vascular inflammation which isn't that fat tissue, that sick fat issue.

So that the properties that will are responsible for a lot of their effects. That's unbelievable. I also think that fat loss, losing excess fat, and we're not talking necessarily the last 10 pounds, but if it can help to resolve sleep apnea, if we can to help resolve blood pressure, the satellite benefits of those things I think is what can pay off in huge dividends.

But this lowering and reducing inflammation is going to be a massive piece of the puzzle. I want to get into women and menopause and those particularities.

I think that one of the ideas that maybe you talk about is that menopus doesn't create new risk factors. It amplifies the ones that are already there, which I don't think is something that is commonly talked about.

So what does that mean in practical terms for blood pressure, lipids, and fat distribution? Basically, I guess as women are coming into menOPause, Yeah.

Is there anything we should be aware of or how is this all playing out from what you're seeing? It's basically exactly what you said, right? So women that we know that menopause is going to change metabolism, it's going change vascular reactivity, is it going changing sleep, its going changes body distribution or body fat distribution to be exact.

And of course menopus unfortunately is the time of increased inflammation and stress in cardiovascular system. So, if women come into that menopausal transition already with pre-existing cardiovascular risk factors, metabolic dysfunction, poorly controlled blood pressure, obesity, or high concentration of that visceral or sick fat, these will, of course, worsen with menopposal transitions, not the other way around.

And they believe that just sprinkling hormones on it will reverse it is not true. No, no. So, okay, here's another one. Many women are told that their symptoms are atypical or it's anxiety driven.

When you're listening to a midlife woman describing chest discomfort, palpitations, or exhaustion, what are the red flags that make you say, this is cardiac until proven otherwise versus the current, which is Oh, that's just, anxiety, you know, and don't even look at a cardiac, at the possibility that it's cardiac.

simple answer here. She is reporting these symptoms. This is cardiac until proven otherwise. There is nothing else to do because we have great testing.

It's not invasive. We can have an answer super quick and even if it's something sinister like a heart attack and hopefully it is not, we could give an individual important things that they need to know about themselves to make sure that Yeah, I love it.

Where do you see hormone therapy, lifestyle medicine, and cardiology needing to talk to each other more intelligently if we're serious about protecting women's hearts and their longevity?

Another great question. So years ago when I was speaking at the American College of Cardiology, i was in the little lounge area for the faculty and one of the very well-known, esteemed women cardiologists who was somebody that we all looked up to told me that just asking about hormone therapy is malpractice.

So I think that with come a long way since then, I do think there are pros and cons to the recent FDA removal of black box warning because hopefully it will open the door to an informed discussion and personalized management because appropriately started hormones when additionally women's risk, metabolic risk and inflammation risk is managed as well, could definitely make an impact, clinical impact.

I think the downside might be that women will rush into hormone therapy without recognizing the fact that it is not a magical solution. And I see a lot of the women like this whose lipid markers, metabolic markers continue to be misaligned with the degree of hormonal therapy.

So hormonotherapy needs to individualized. Yeah. It's like everything else though. I mean, like you said, it's not a silver bullet, but it is part of the puzzle.

Exactly. So, I think I know the answer to this question, should all women consider getting some kind of cardiac checkup at some point? And what age do you think, when should we start to look at it?

Do we wait for menopause? do we do it ahead of menopus? What do I think the same paradigm that we use for breast cancer screening with examinations that start in a certain timeframe and continue annually will be something that will need if we want to get ahead of cardiovascular disease in women.

The question of when is an interesting question because I answer a lot of these questions based on genetic and laboratory markers, right? You could have a 25-year-old whose genetic or laboratory marker are very worrisome or a 55- year- old where they're not and you're more worried about sort of age-related progression of cardiovascular diseases.

So this is something that we will find out, but as a rule of thumb, I would absolutely say that any woman who is considering having children or had children, especially young children needs to know her cardiovascular risk because she wants to be there for her children and for our family.

And that's the time when it's going to most challenging for to actually mitigate the factors that down the line will accelerate that vascular aging. Yeah.

Well, I think we all aged through early childhood years. Lack of sleep, stress, not taking care of ourselves. Hopefully we mitigate it down the road. But yeah, I mean, the concept of getting a baseline earlier in the game, maybe you don't need to be checked as often, but to have a base line of what your normal is and then if anything comes up, start to increase the number of times you look at these things would make sense.

This clip from episode 419 is where Dr. Natalie Yevgi Ohana completely blows my mind as she explains that a mitochondrial transplant can heal rare diseases.

And beyond that, as the therapy becomes more widely known, it could potentially cure a lot more illness, including aging. My aha moment was, can we use mitochondria to fix diseases?

Can I isolate mitochondrion from one cell type and apply it to another diseased cells? Will they go in like they did during evolution? And that's it. That's how Minovia started.

It was a crazy idea, but I just had to test it and it was true. So what was that scientist's name you said in the 1960s and who didn't publish her paper and was it a guy?

So Lynn Margolis was a scientist in the 1960s, and she suggested the fact that there were endosymbiosis happening between different species. It is also the chloroplasts inside plant cells, which are also evolutionary.

They used to be also germs and the mitochondria in our living cells. So she suggests that that is a structure that enforces these two species to come together in order to supplement a missing function.

That missing was the use of oxygen and the outcome was creation of the energy, the ATP. She tried to publish this in 15 different journals and she was rejected.

In the 16th time, that was accepted. And eventually it's a common practice for everyone. This is the endosymbiotic theory. When you look at the mitochondria under the microscope, they look like bacteria.

They are the size of bacteria, They contain their own DNA, just like the bacteria and their DNA is circular, Just like a bacterial DNA. So everything about them says that they used to be bacteria they actually can replicate independently from the cells multiplying.

yeah they do the yeah and fusion and and my to biogenesis and they're very independent within the cell we feel very brave now first of all our therapy is safe so it's not not do know how first evolved and then in the multi organ improvement we had a patient with severe epilepsy and stroke like episodes on a monthly basis that for six years we prevented those after a single treatment.

It was like unbelievable. So we really try to understand how to deliver this therapy way broader. The brain is very interesting but very challenging. organs.

We will just have to face the clinical outcomes to see them. And eventually, that will be the proof. I don't think we'll ever understand everything about how it's exactly working.

But I think that's the most important thing. Because if you save the life of a child with a Pearson syndrome, but you didn't fix his brain, I mean, So yeah, you didn't achieve the ultimate goal.

Mitochondrial transplant and disease repair

So we can say that metabolic disease like diabetes, non-alcoholic fatty liver disease, cardiovascular diseases, are going to, at the very minimum, have a mitochondrial component to them, if not be foundationally linked to mitochondria under this malfunction or under performance.

Are there, do you think, are we misclassifying diseases that are actually mitochondrion in origin? I mean, fundamentally, the question is, Do you there's a disease that isn't founded in mitochondial dysfunction?

You can try and search your engine. Any disease with mitochondria, you will find a connection. I tried this before. You could go ahead and do that. But definitely, I mean, whether it started the disease or it's an outcome, this is a question.

What I can tell you for certain, any disease will benefit from improved mitochondrial function. Okay, because fundamentally, if you get more energy, you can fix anything within the cell.

You spoke about diabetes. Insulin production is an energetic process. It has to be coming with improved mitochondrial function and then you'll get insulin production, controlling of insulin, production controlling glucose metabolism.

All of that is energy dependent and mitochondrial dysfunction will actually induce further damage into the cells. If you improve that, you have a better chances to fix the, even the initial problem that the cell has.

Yeah. cell accumulates mutations, for example, and now you improve mitochondrial function, you have better chances to initiate a DNA damage response or to improve the function of those machineries that will fix the cell.

And if it's not, mitochondria will induce the apoptosis, the self-suicide to eliminate the bad cells, which is also fundamental. Yeah, I think there is even…

I tried it, even one disease that doesn't have mitochondrial function, eventually. And those diseases will probably benefit from mitochondria function.

Yes. Yeah. I would think so. Even like anything in the eyes, like as we see the decline in eyes. The eyes are so dense in mitochondrion. Before our call, we had a full discussion about different diseases that could benefit for mitochondry transplantations.

You name it. All right. Let's move into mitochondrial biomarkers, measuring the invisible. So this is what your work really becomes also about. There's obviously the mitochondria transplantation, but as you said, in order to quantify what you're doing and to understand the needs and the outcomes.

It's really about measuring something that nobody really has been able to directly measure so far. Check out this clip from episode 421, where Dr. Amy Apigian explains what our bodies do with stored trauma and long-term stress.

This was literally one of my favorite episodes. How the body goes into a trauma response is the same way that it then comes out. Okay. And I say that because most people think, I just want to go do that ketamine journey.

I want do the ayahuasca and not realizing that that belongs in a certain phase, but that's not phase one. So there are three phases of this healing journey because we have to walk our body from where it's at.

to where we want it to be. And it's not a shortcut. There is no way to make that jump without going through the anxiety and the grief and panic that are all stored in our body because we didn't ever resolve it at that time.

Okay. Cause you do talk about, and just at this juncture, you talk some types of therapy, just re-traumatize the person. So how do you avoid, like what's the difference in approach between what you're talking about versus just relieving the freaking trauma and being just as traumatized as you were before and going, great, now I know I've seen it, I have lived it again.

Now what? I don't feel any better. So if we really come back to our definition of trauma and say trauma is our body going into a trauma response. Then if that's what I'm trying to avoid, I am trying avoid overwhelm.

Right. I try to avoiding overwhelming my mitochondria. Overwhelming my immune system, overwhelming actual cells. That's why I trying avoiding overwhelming.

And as we were talking before, it doesn't always give us the memo ahead of time. It really sucks. Life would be so much easier if we got a heads up. Which means that we often need to go slower than what we think we need, just to make sure that, we don't overwhelm our body systems that aren't going to give us that message ahead of time.

And so I liken it to a swimming pool where yes, I can say where we want to be is we wanna be swimming and splashing and playing in the deep end of the pool.

That's where everybody has the most fun. And that's we're the Most alive. So I'm gonna throw you into the Deep End of The pool because that where you want To be.

That would create overwhelm. Yes, that is where we want to be. However, where need to start to prevent overwhelming our body is we need start in the shallow end of the pool.

And then we even need get our bodies to say, oh, water isn't dangerous because it's had that experience that water is dangerous. Then I teach you how to swim.

And I teach you how to swim in the area of the pool where you could just stand up at any point to stay out of overwhelm. And then we get to the deep end of pool.

But again, many people not knowing this, this is what I did. I didn't know better. Like, I need to process my stories in my past apparently. Let's jump in and get this done.

I got no time. Yeah, let's- I don't have time writing that. See, you get me, Natalie. You get. So I jump into the deep end of the pool and I'm drowning in my own emotions.

I didn't know how to feel this anger. And so I am back to my usual coping mechanisms of laying on my couch, watching a movie, hugging a tub of ice cream.

Because I'm numbing. I have to numb these feelings because I don't know how to swim yet. And yet in the process of trying to heal my trauma, I am actually reinforcing those very same responses that I try to change.

And you know, with neuroplasticity, whatever you reinforce gets wired in even deeper. Yeah. And so that's why these methods that are going to overwhelm us are not helpful.

We have got to even learn that doing it gentle is part of the rewiring. Treating ourselves with kindness is part of the reprogramming that has to happen, because that is actually part our trauma patterns is pushing ourselves.

Yeah, and beating ourselves up. And there was one exercise I read about in the book. I mean, I haven't finished it yet. So but there's one the exercise you described, which is You know, it's art therapy, right?

But what really struck me about it, where you encourage people to draw out these scenarios, It's separating your today from your person from before.

Trauma, nervous system overwhelm, and healing

Right? Speaking about yourself in the third person. Third person, Right. So creating, so somatically by drawing it I guess, and emotionally by speaking it and all the different strategies that you use is really to to separate that traumatized person or that person that's being traumatised from the person you are today, which I found so…

I just found that so powerful, right? Because I think any of us, or many people, if there have been a couple of fairly traumatic events in my life, and if I go back and talk about them, my heart rate will go up.

I'll get flushed. I go, and I'm like, dude, like this was decade, get over it. You're fine. It's you got through it and yet my physiologically, I feel it if I am telling the story.

So I guess I haven't separated myself from it yet. But, but it is, it's, you know, as I reading the book, Wow, really? No. But tell me this, does the body decide what system, how does it decide?

For me, I've decided, and I guess, for you, the immune system is where it lives, your trauma, right? And that's the system therefore that expresses the overwhelm, then the lack of capacity when you over push.

Is it always theimmune system or can it be different systems in the There tends to be a predominant system for each person, but Natalie chapter five of the book shows that every single system is affected.

Okay. So it could be carting back to the heart. It could whatever. Yeah, exactly. You and I both know people that when it comes time for their family reunion, they're breaking out in the skin rash.

Right. But for other people, it's their digestive system, right? That's been a big one for me. So for my primary has been both my digestive and my immune system.

I've got my system… I mean, just as I say that, I can think of many examples just this year where, no, reached a critical line of anxiety, panic, and now overwhelmed, there was my new system getting sick.

What starts to shift in the body when you do this work, right? And you start to move your biology from this constant survival state into repair and restoration.

Like, do we feel that? Or is it just that we start have more capacity? You start notice that things don't affect you as much. You don' get sick as often.

you don have an immune flare. Is it literally that direct? It literally is that direct. The first things that people experience when they work with me, in the first three weeks, they have improved sleep scores.

They have an improved digestive system. They have less digestive issues when we go to eat. they less anxiety, less depression, more sense of community and joy, and a 60% increase in a felt sense And that's just in the first 21 days.

That's amazing. You take that and now you extrapolate that for the next three months. If you feel 60% more safe in your body, well, what else is going to change?

Many people are unknowingly living in a chronic survival state. Like they don't realize it, but all they're doing is surviving, right? How does that reshape the nervous system over decades?

Like what's the impact on your nervous when you're constantly pushing like just living in that, I'm not going to die, but I am going die kind of scenario.

Yes. Now chronic stress is one of the biggest misnomers that has hurt us in the medical field. Yeah. We've labeled things as stress and stress as bad.

we need to reduce stress, we to manage stress. And then there's chronic and that's really bad, that totally going kill you. Yeah. Chronic stress has taken you out.

Exactly. When we come to the physiology, Natalie, we see that there's not that distinction in the body. Okay. Well, there is not this chronic stress state.

Now that actually comes from a stress researcher. His name was Dr. Hans Selye, and he gave us the model of chronic stress, but what he was actually describing without having the words to describe it was that shift between stress physiology and then overwhelm.

Okay. So let's make that distinction because I think where people are going to push back on this and they're going say, yeah, but you know, when you're chronically stressed, your cortisol is elevated.

You're in a catabolic state. Your blood sugar is going be high. These are the definitions we've put around chronic stress. Let's peel that apart a little bit.

Absolutely. What he noticed was that people could be in this acute response state acute response state runs on adrenaline. Adrenaline, its job is to help all your cells in your body make more energy and then use up that energy for self-defense or expansion, growth, whatever it is.

And then he noticed that a line would be crossed. He noticed what happened in their physiology was what he labeled exhaustion phase. The body is exhausted.

And no longer is it able to do what it did in the acute response phase. Now, because it's exhausted, it starts to fall apart. So now we have this inflammation.

And the Acute Stress Response, we don't have that kind of inflammation, We have an acute-response inflammatory state, but it doesn't look anything like the exhaustion phase inflammation.

So even that is very different. And what he just didn't realize was that that exhaustion phase was not just chronic stress. It's different than stress, and he acknowledged that.

He just doesn't have any other words to use for it, so it got labeled as this is stress and this chronic. But actually what's happening is that the body is reaching an overwhelmed state when it crosses that line.

And when it crosses that line, it does not matter how much adrenaline you have. It does no matter. How much cortisol you. Because what's shifting is your nervous system state.

So it's like shifting from driving your car in sixth gear because you're racing somewhere to throwing on the emergency brake. You can still have your foot on the gas pedal.

It kind of doesn't matter because you have the emergency brake on. And that is often why we see high cortisol, not because cortisol is actually causing all of these problems, but because the Emergency brake is on and so the body's like, Hey, we're trying to create a different response.

So we are giving you all this. Cortisol is supposed to be there to help buffer us from adrenaline. Cortisol isn't bad. But again, what we've identified as, but high cortisol means this, that's only because high cortisol is still there in these conditions.

High cortisol is not necessarily causing that. What's causing is this vagus nerve system shift. Right. And so that's where the focus needs to be is how are we helping our vagus nerve take off the emergency brake so our body can come out of this chronic exhaustion phase and move towards healing.

But see, Natalie, most people don't even know that. Most people do not know the vagal nerve can also communicate overwhelm and trauma. They've only heard the vagus nerve is great.

You want to activate your vagis nerve. you want To stimulate your Vegas nerve and we've got all these devices and breathing techniques and humming cold plunges and biohacking because Vegas Nerve is only good.

No, the Vegas. Nervous just the train tracks. Yeah, it's a nerve nerve, is just train What is the train that's running down those train tracks? And you have two different trains that can run down the vagus nerve.

You can have the ventral vagal, parasympathetic, rest and digest. I call it calm and yet alive. you can't have that train run your vagous nerve and that is when everyone, no matter what health conditions they have had, will be in their best health and their self.

But then you could have this other train. And this is the train that runs down the vagus nerve. When we reach a point where the life threat that we feel is in front of us is so big, we think we might die.

It's that moment of feeling trapped, powerless. and yet my life is in danger, or it feels that it's in dangerous. By the time we reach adulthood, Natalie, honestly, the most times that we are going into this overwhelmed response is an interpersonal relationships.

Yeah. And yet interpersonal relationship is where we feel like it is a life threat. I'm going to die if you abandon me. If you don't love me anymore. It's not the bear, it's off the lion.

No, for us, especially as adults, It goes all the way back to our early adult, early life and attachment issues. But most of the life threats that we perceive are interpersonal.

Yeah. And it gets about getting kicked out of The tribe. It gets ultimately, because we can't, we're not solitary. Creatures never intended to be solitary.

No. And, and as a little child, if you learn that anger means is bad and makes you bad, therefore you will be excised. You carry that through your life.

Yes. So now when you feel angry, you are going to not only stuff it inside because there's no way that you can express your anger, but you're going say this is a life threat to feel this way.

And so much of auto-immunity is I am the problem, I cannot feel this way. I need to shut this down. I needto shut myself down." Interesting. All of Auto-Mutie has attachment patterns behind it.

It's fascinating. That is fascinating, it's crazy actually. And when people stay in that chronic survival state that you've described, Does that have like, what is the impact on that on the nervous system over their lifespan if they don't address it?

You know what I mean? Like how does the nerve system, does it just get exhausted? Is it tapped out, loses capacity? What's the, impact the on nervous?

It is very predictable and consistent. And so what happens is that when we've had an experience of overwhelm that's feeling powerless, trapped, overwhelmed, If we don't have the full recovery, if we do not have that full reset to safety, our body stays thinking we're still in danger.

Now what most people think is that I stay always hyper vigilant. I stayed always stressed out. But actually what happens is the body enters into this loop and it's looping between those last two steps of the stress and trauma response.

So sometimes it is in stress. And we're waiting for the next shoe to drop. We're super sensitive. Our nervous system is on edge. But sometimes our nervous systems says, I'm exhausted.

I can't keep up with this. And it's falling into that overwhelm. It's crossing the line and it does that, Natalie, to get some relief. So it shutting down, like you're exhausted, you can deal.

You can cope. This is when you're also going to start emotionally eating, eating those things that you don't want to be eating. But yet your nervous system has to find relief from the constant sense of danger and bracing.

To do that, since truly feeling safe is not an option, the next best strategy is just to numb it. Right. Right, right. And so we avoid, we distract, and we numb.

There are all kinds of coping mechanisms that humans come up with. In episode 417, Dr. Cynthia Keller shares how COVID and many people left behind total wreckage for our health and mental well-being.

and the amazing yet simple tool that she developed to help get some patients right back on track. I had a patient who was suicidal and I've known her since birth she wasn't supposed to be suicidal she should have been panicked right because that's who she is and um I was like well when did this start because I'm so confused.

And usually I've intervened before they're suicidal, you know, like. Well, there have been signs and symptoms. Right. We talk about that. And we find solutions.

So she said August 25th. I was like, what? Whoa. She said, yeah, I. Was at the fair and I realized if I can't be happy here, then I might as well just end it.

Like her life was great. There was no thing. Later, i figured out that she had had Covid. i think it was August 18th Then I went, well, that's weird, right?

So for about, it was almost a year, maybe nine months, I treated her with medication after medication because I'm good at that too. I don't love medication, but I really don' like kids who are suicidal.

So it's always about picking the best choice. And then I was at a conference and I hadn't solved it. Like she wasn't actively suicidal, She wasn't happy.

COVID aftermath, serotonin, and supplement support

I still was seeing her regularly and because I had to solve it. Right. So then I'm at a conference and it was a totally, it, was about COVID, but it about how COVID hits this or there's three receptors for COVID in the gut.

And that cell is called the enterochromaffian cell and its job is to take tryptophan and turn it into serotonin in not in the brain, to like move things along, you know, propulsion so that the virus leaves and some other things.

And all of a sudden I thought, huh, and then I though, well, maybe this is a serotonin thing. Maybe that's what's up with her. Then I went, oh, but, like 90 to 95% of the seratonin in body is made by those cells in gut.

So then, I'm like, this it. Wait, wait, serotonin doesn't get into the Right? Like tryptophan has to get into the brain. So you take trypophane in about 1% of that gets into.

The brain and that you can use to make serotonin for, you know, for the for moves. Right. everybody. We sit at lunch for an hour and we talk about cases or I teach.

So I throw this out there. I'm like, let's brainstorm this. And one of my naturopaths who's so smart, he said, well, Cynthia, could we just give her some tryptophan?

I was like… I don't know why that didn't seem so obvious. But I gave it to her. Sorry, back two weeks later. You know what she said? I think this has just been a really great learning experience.

I was like, what? So I removed all her meds and, you know, she went back to life. And I thought, well, that's remarkable. So then, then I started digging deeper and deeper.

And then later, a patient came, well, actually it was her, she came back and she just wasn't joyful. This is like maybe nine, 12 months later. And I was thinking, if I were going to prescribe for you, I would try to tickle your dopamine.

I'd probably give you Wellbutrin, which works on dopamine, but I wasn t going give her meds because I had been through that before. So then I went to my group at lunch and said, you guys, now she's not making dopamine.

And I was like, you know, does tryptophan? No, because it's trypophane goes into serotonin, but tyrosine goes in to epinephrine, norepinephrin, and dopamine." So I'm like sitting at lunch and one of my naturopaths says, just a second, runs into her room, comes out like three minutes later and shows for me the three cofactors that are shared in those two pathways.

And I went, oh my gosh, and they are P5P, which is a active form of B6, I'm sorry, BH4, that's what I meant, sorry. Which is like, it's involved in methylation and then also zinc.

It's very, very expensive to give someone BH 4. So instead I cheat in and give methylfolate just to support the methylations. That's my cheat. I must say from here on that they need folate, but it needs to be methyl, the best I can.

And it works, so that's fine. It's cheap, right? It is not like $100,000 a year or whatever. So I gave her P5P, zinc, and methylfolate and her joy came back.

And like, so I think what happened was, is that enterochromaffian cell is being stimulated by COVID all the time. So, and I mean, if we have time later, we can talk about how it incorporates ourself about, how COVID incorporates itself into our microbiome.

But otherwise it's just true. And, you know, every time you go to Safeway, it gets spit on you. and even if you don't catch it, right, It hits those cells and you expose it.

So there was this repetitive drain. It doesn't have to be a big COVID event, right? It probably was. So you're talking about the spike proteins getting embedded in the, like the spiked proteins?

Getting embedded or the actual virus? The actual Wow. Okay. Also, the spike proteins. Sorry, is it like a latent virus, like, a Lyme or an EBV? Is that a little bit what you're saying?

Right. So first, with the enterochromaffian cell, it has three receptors for COVID. Now, so it can also be probably stimulated just by the spike protein, but right now I was talking about COVID.

But to answer your acute question is that the problem with COVID is it could do a bunch of things. So it either incorporate itself, in fact, or microbiome.

So, you know, Robin Rose, right? So when I first heard her talk about the fact that it's a Bactrophage, which means that, it supposed to infect me and then I'm supposed decide if I want to kill that cell that has it in it or, or what, fight or whatever.

But if it is in my microbiome, well that's self, like see, I have allowed those.