



Essential Alchemy

The Ancient Art of Healing Naturally

Season 1, Episode 10: Hormonal Impact of Sympathetic Overdrive with Ritamarie Loscalzo, MS, DC, CCN, DACBN

Jodi: Welcome to the Parasympathetic Summit. I'm your host Jodi Cohen and I am so excited to be joined today by Dr. Ritamarie Loscalzo an internationally recognized expert in nutritional endocrinology and the founder of the Institute of National Endocrinology focusing on the science of rebalancing the hormones, restoring energy, and using nutrition and lifestyle approaches. Dr. Ritamarie is a Doctor of Chiropractic with a master's degree in nutrition and certifications in herbal medicine, acupuncture, and Heart Math. Welcome, Dr. Ritamarie.

Dr. Loscalzo: I am so excited to be here. I'm just so thrilled that you are doing this. It is one of my favorite things to talk about. So, I can't wait.

Jodi: Yeah, I'm really excited. If we want to just jump in with how hormones are impacted by the autonomic nervous system and sympathetic dominance.

Dr. Loscalzo: It is interesting because you're the only person I really – other person who I hear talk about that so much. People come in and they come to get their digestion balanced, and I am talking about sympathetic/ parasympathetic balance because it affects everything. So, the stress hormones, right, cortisol and adrenalin, they impact every function in the body. So, shutting down digestive function, and throwing the blood sugar balance off and affecting all the other hormones. So, it is super, super important, I believe, that we get people from the sympathetic dominance, sympathetic overdrive I like to call it – everybody is living in this state to state, day to day state of sympathetic overdrive. And I think it is the underlying cause of just about every disease.

Jodi: I agree with you. Right, because, when we are in that fight or flight state. Everything non-critical to immediate survival shuts down.

Dr. Loscalzo: Exactly, exactly. So, I wonder why I don't have sex drive. I wonder why my food feels like it gets stuck in a knot in my stomach.

Jodi: No, I know. It's interesting because I know you do a really good job helping people to transition from the sympathetic overdrive state to the parasympathetic state. Can you speak to that a little bit?

Dr. Loscalzo: Yeah. So, one of my favorite techniques for doing that is from the Institute of HeartMath and they have this little technique that I teach everybody. And I teach it short verse and then we go further with it as they get further into programs. But it's called Quick Coherence. And it is using the combination of breath and gratitude to shift. It's amazing how quickly it shifts. If I do this with an audience in person, we have awesome pictures of people at our events just like this [demonstrates hands crossed of chest with eyes closed in a serene posture]. It's just like I can feel the energy off the audience is so different.

We do it on Zoom calls all the time. People are going, "Ahh. Ahh." And that stress just melts away. It's something people can do all day long, every day, any time you feel stress coming up, but even not. I tell people, before you sit down to a meal – the old state we did, when we were kids, was grace before meals. And you never knew that – it was like just get on with it, let's just eat. And now it's like I am so appreciative that we did that because it helps the food digest better.

Jodi: I want to delve a little bit more into parasympathetic and blood sugar but then I would love it if you would lead us through something like this.

Dr. Loscalzo: Sure.

Jodi: OK, that would be amazing. So, let's talk a little bit about the physiological effects of cortisol and other stress hormones on the body and how that interacts with our digestion and our blood sugar levels.

Dr. Loscalzo: Absolutely! So, cortisol is a hormone secreted by the adrenal glands and it comes out when we are stressed. And it's meant to be like the longer lasting hormone. So, adrenaline which is kind of a neurotransmitterhormone combination, gets secreted, so that's what we think about a momma lifting that car up off her baby or doing some heroic feats and then collapsing exhausted down there. That the adrenaline just gives the body that push and then cortisol helps to come in and continue that process because you can't keep going with this quick fit but it does things like direct the attention away from the extremities or to the extremities.

So, if there is tiger chasing you, right, you don't want to be digesting food or thinking about physics problems or sex, right? You want to be running away from the tiger. So, all of the attention is pushed toward the extremities, so you can fight and run, and away from the core, away from the sex organs, away from the digestive tract. So, it actually causes the digestive, the little valves between the sections of the digestive tract, to shut down.

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Dr. Loscalzo: Sometimes there's this temporary opening up and then shutting down which is why people get that [inhales], you know. They're so scared that they end up having to go to the bathroom or they poop their pants or whatever when it's really severe. But mostly it just is like let it go and then close everything down. Shut down the enzymes. Slow the secretions down. So, digestion is not going to happen.

Then, from the other perspective is, what do we need to run? We need fuel. So, it will go, "OK, I need sugar into the blood stream." So, the cortisol will then go to sugar stores in the body. Glycogen stores in the muscles and the liver. Muscle itself which can be broken down and then fat. Cortisol preferentially likes protein. It likes to take those proteins and break it down into the branch chain amino acids to create fuel. So, what it does is it raises the blood sugar and, when it raises the blood sugar, it calls on the pancreas to secrete more insulin and more insulin to take that sugar, get it into the cells where it can be useful.

So, that whole mechanism is very helpful when there's a tiger chasing you. Very helpful, right? You can see that. It makes sense. Does it make sense when the tiger is your boss in the other room going, "Hurry up and get that report done!" or your kid flunking out of geometry, or your mom who is in a nursing home and needs some decisions made. Those things don't require running and jumping and physical prowess. So, all those same mechanisms happen because your body is equipped not to differentiate and, so it is like survival, survival. So, we are sitting at our desk getting stewed up about hurrying up to get that report done. Meanwhile the blood sugar is rising.

When this is happening continuously, we end up with a condition called insulin resistance because the body is responding, high blood sugar, insulin, high blood sugar, insulin, and finally the cells get to the point where the membranes are damaged. And they are like, "No more!" because insulin can damage them in excess. So, we create this whole cascade of problems. The food that you just ate for lunch as your body is hounding on you and your digestive tract shuts down, it messes with the microbiome. It messes with absorption of nutrients and on and on.

So, these wonderful physiologic processes that are awesome when there are tigers chasing you are terrible when it is the day to day, 24/7 stress that we all experience.

Jodi: That was such a great explanation. Thank you. That was really amazing, and I didn't know – so, adrenalin is kind of the quick immediate fix and then cortisol is more – that's the spark plug and then the cortisol is like the slower burning log, kindling.

Dr. Loscalzo: Exactly! Exactly. That's a great way to look at it. Yeah.

Jodi: Wow! That's fabulous. So, what you're really saying is that you can be kind of eating the kind of perfect blood sugar balancing diet, trying to avoid carbs and sugar, but, if you are in a situation of stress, there's going to be blood sugar in your system anyway.

Dr. Loscalzo: Oh, absolutely, and I see this all the time. I do a blood sugar balancing program, and people are like, "I am eating this way and I am eating that way. I don't know why I am not losing weight and I don't why--!" And I'm like, "Breathe." This is why, because it is not just about what you are eating. The stress is actually – I call it the candy bar eating effect of stress. You get to get the sugar raised as if you ate a candy bar, but you don't get the pleasure of eating the candy bar.

And I have experienced it myself. Where I have lost it, not used the techniques I know to shift myself into parasympathetic. And I've gone, "I wonder what my blood sugar is?" And after having a simple meal of lettuce and tomato and avocado and cucumber and normally that would raise my blood sugar a few points and come back down and "Oh, I am 150." I could have eaten a candy bar and gotten that but instead I just got myself stressed out.

So, then shift it, and we can actually see the blood sugar go down when you use these techniques, the HeartMath techniques, the one that I use. But tapping is another one, essential oils, whatever you are doing to bring yourself into that sympathetic state, you can test it and check your blood sugar.

And I would love to experiment with your parasympathetic blend of oil. That would be really fun to get somebody like stressed out, test the blood sugar, do some breathing, get them down and see how much it goes down. I have had people tell me that their blood sugar goes down as much as 25 points by just doing the breathing and shifting themselves.

Jodi: That's amazing. And, you know, it's funny. I am pretty good about not eating sugar, but whenever I have to visit someone in the hospital, all I want is a cookie or chocolate because it must be so stressful for me to think that something bad could happen.

Dr. Loscalzo: Yeah, yeah. And it triggers – you know about pathways and your nervous system is like wired to the stimulus response things. So, that hospital brings up some things. Even if consciously you are not getting stressed, it just brings up so much that it puts you into that state. And yeah, give me a cookie, I need a cookie.

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Jodi: Yeah, yeah. Well, I think it is a blood sugar overload thing. So, talk to me. This is amazing and blood sugar is so critical – we can even talk about that – for you whole function, for brain function, for energy, for healing. Do you want to just quickly kind of explain how blood sugar impacts other parts of your body and how it is a critical component to health?

Dr. Loscalzo: Yeah. I'll start with brain because you mentioned that. And so many people, as they age, they are afraid of getting Alzheimer's, "Oh do I have the genes for it?" and what not. But you're not looking at, have I been abusing my blood sugar balancing systems for the last 30, 40, 50 years. That's a contributing factor to dementia because – there's a couple of reasons for that.

So, what happens is the same way the cells in the body get resistant to insulin and then the sugar stays in the blood and doesn't get into the cell, brain cells happen that way, too. We used to think, and, when I was in school, we learned, that oh the brain cells don't need insulin, the sugar just goes right in. But that's not what the recent research is showing. That there's various parts of the brain, including the hippocampus which is the short-term memory and including the mechanism to go from short term to long term, that's impacted by blood sugar. That's impacted by insulin and insulin resistance. That's one thing.

But there's also this other mechanism that most people don't know about. There's this called insulin degrading enzyme. So, in our bodies, our body is very equipped that we have a response and then there's something to clean up. There's something to mop up the mess.

Jodi: Insulin.

Dr. Loscalzo: So, mess is let's get rid of insulin, so there's an insulin degrading enzyme and this insulin degrading enzyme is the same enzyme that is secreted in the brain to work on those fibril, the neurofibrillary tangles that are associated with Alzheimer's. So, every time you're messing with your blood sugar, so, getting stressed, eating poor food, you're messing with your body's ability to keep your brain nice and clean.

Jodi: That is the cleanest correlation I've ever heard anyone say. Thank you for that. If people wanted to look up the research where would they find out more about that?

Dr. Loscalzo: You can look – there's lots of if you just went on online, just go to Medline. Also, the book, The End of Alzheimer's.

Jodi: Dale Bredesen?

Dr. Loscalzo: Yep.

Jodi: Yeah.

Dr. Loscalzo: He talks about that in there, too.

Jodi: Amazing, amazing. Let's talk about – because I know you have a whole protocol of techniques, if you would share one of your – well first of all, if you would explain kind of how gratitude helps us shift from a state of stress to a state of safety and relaxation.

Dr. Loscalzo: Yeah. So, there's a whole body of research if you got to heartmath.org, it's loaded there. And, basically, they've done some studies on how do you shift from parasympathetic to sympathetic? They do more than just that. They hook people up. They test enzymes before and after, hormones before and after, blood pressure, etcetera. And, so, what they found is that getting into the state of gratitude, like focusing on the heart is actually what shifts from parasympathetic to sympathetic. Yes, breathing, so they call it heart breathing – heart focus, heart breathing, and heart feeling.

So, you focus on the heart. Then you breathe from the diaphragm and breathe as if you are breathing into your heart. And then you focus on an emotion. Like I have people think about like a place where they just felt really good and they have a lot of appreciation. I go to the beach.

Jodi: Me, too.

Dr. Loscalzo: Ahhhh. And it shifts you, you just can feel it. The more you practice it, the easier it is to actually feel the sand under your feet and feel the warmth of the waves and the sun and all that. And you just go there. And they've found that, with the nervous system, you can trick it into thinking you are really there. So, if you relive an experience that was really positive, you're reliving the same hormones and enzymes and they have hooked people up and tested all of this.

But it is the same the other way. So, if we're reliving a stressful situation, we're recreating the damage to the body. So, I always tell people, you know, if you are on your way to work and you get cut off and you get all pissed off at this person who cut your off. And you are yelling and cursing. And you get to work, and you just keep telling it, "I am almost got killed this morning, unfortunately that stupid blah, blah, blah."

Even just saying that, just faking it, bring this feeling in here. But if you were to say, "Oh, I am so grateful, I hit the gas pedal in time. No collision happened. I hope – that guy was really in a hurry – I hope he doesn't cause an accident further down the road. I sure hope, if he is rushing to get to the hospital to see his sick mother or his baby being born or something, that he gets there safely." What a difference, right?

Jodi: And it's just by changing the narrative.

Dr. Loscalzo: Changing the narrative. Exactly.

And then you go to work and somebody says, "How's your day so far?" And you go in there and go, "I am so blessed. I am so blessed. This guy almost hit me. I don't what his problem was. I hope he gets safely – I almost – and I hit the brakes in time. I'm so fortunate. I'm here. I'm excited. It's a great day."

Jodi: That's an amazing tool, especially for this time of uncertainty and Covid. We can control our own narrative. We can walk outside and decide that it's a beautiful day and be excited about that or just be grateful that we have a cute dog that's fun pet or our friends and family are healthy. That's a really powerful tool.

Dr. Loscalzo: It's a super powerful tool. And it's actually easier than we think because people think life is this and all this. If we were to really realistically look at all the bad things that are happening in the world and all of the good things that are happening in the world, the bad is a blip, the good is huge. But nobody is talking about every baby that's born. Nobody is talking about all the weddings that are happening. All the – the first time gazing into your newborn's eyes, people who are doing amazing, wonderful time, altruistic things in the world, we're not focusing our attention there. The news media is focused on things that stimulate sympathetic response.

That sympathetic nervous system stimulates fear. What do people do when they are fearful? They jump out; they want to buy things that are going to save them. They do things that are going to save them instead of just sitting with, "I can shift this right now." Yes, there's stuff out there is going to happen. It's happening now. It's always going to happen. Looking back, I actually think – I look back and go, "We're blessed. We have had such a blessed life that we think this is disaster." What about people who are living in war zones where you don't know when your house is going to be bombed in the next moment? What about people who are living in flood zones and people who have been destroyed or their lives who have been destroyed in hurricanes and whatnot?

Jodi: Or different periods even in this country, where we have been in war, where people were drafted, where they didn't have control over if they lived or died. We are very lucky.

Dr. Loscalzo: We are. We have really led blessed lives in this generation. And, yeah, this is a tough year but let's just look at our blessings. Let's just really shift to counting our blessings. It's hard, you know, you get caught up in it. And then you go, "OK, what do I have to be grateful for?"

Jodi: Yes. And I want to talk about – I actually just saw an article that was correlating vagus nerve stimulation with improved immunity and resilience against Covid. Can you speak a little bit to what HeartMath is and how that helps to build vagal tone and build vagal resilience?

Dr. Loscalzo: Absolutely. You can actually see that the person has shifted – I can actually watch you do it and watch the sympathetic kind of look on the body and the face and the tension and then just watch somebody while they are doing this and it shifts right out.

Jodi: I know it's like when a hangry person eats, and you just see them relax.

Dr. Loscalzo: Yes. Exactly! Exactly! So, basically HeartMath is based on the concept of getting into a state of coherence and coherence is when the brain and heart are working in harmony with each other and then that makes the whole rest of the body work in harmony with each other. And then they measure – if you want to measure, you don't even have to measure to do the technique – the heartrate variability. So, heartrate variability. What controls the heart? The vagus nerve, right? The vagus nerve controls the heart. It controls the lungs. It controls the digestion.

So, we are actually getting ourselves – and there's upward and downward nerve impulses to the vagus. So, I believe, and this I would have to look at the studies to see if there is actually research that correlates, but I think that when we are focusing on heart and breathing and getting it into coherence that the stimulus going back up the vagus nerve is safe. We're safe.

Jodi: Yeah, I think you can access the vagus nerve at any point along the chain, like through breathing in the lungs, through HeartMath through the heart, through coffee enemas in the gall bladder, through applying essential oils on the nerve. Basically, wherever you interact with it and help it shift gears, it affects the whole chain.

Dr. Loscalzo: It affects everything else. That's the cool part about it. That's the cool part. So, basically, we're focusing on this coherence and we're focusing on appreciation and, that's what, after all their studies, they figured out that the appreciation was that feeling. That was what brings everything together. So, the combination of the breathing, focus on the heart, paying attention to it, and then focusing on the feeling. And all of – it shifts it so quickly.

And I've had a couple of experiences with that. One is testing my own blood sugar, testing blood pressure. I have had people sitting in front of me, hypertensive. They are trying to deal with it. I will test their blood pressure and it's up. Then I go, "I am just going to guide you through a process, and we're going to test your blood pressure again." Comes back, comes down.

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Dr. Loscalzo: So, when I teach people to do this throughout their day, it is affecting their blood pressure. It is affecting their blood sugar. From blood sugar, sometimes it's really quite – sometimes it take 15 to 20 minutes, but the pressure, it almost goes down immediately.

Jodi: How often do you recommend people do this?

Dr. Loscalzo: All day long.

Jodi: No, it's true.

Dr. Loscalzo: When I have them start, I will say, "OK, start with right before you get out of bed and right before you go to sleep." Just start there. Start with appreciation at the beginning of the day. If you want your meals to be best digested, you do it before each meal. 30 seconds to a minute is all I am talking about. You can do the more extended techniques. You know, more like a meditation or a mini meditation. But I like to do it throughout the day. So, if I feel myself, like I did a couple of times during this call, I felt myself – I am mimicking that feeling and I could feel it. So, I go there [demonstrates a deep breath]. I do it. I do a lot of webinars and sometimes technology breaks and I've got a few hundred people on the line and my technology isn't working. And, so, if I find myself going, "Oh my gawd, what am I going to do?" The other affect of cortisol is to turn off the prefrontal cortex and turn on the lymptic system.

Jodi: Yeah!

Dr. Loscalzo: Yes, exactly. So, you don't have high level thoughts happening through the survival part of your brain. The lizard part of your brain is what gets you out of trouble. The wizard part of your brain is that long-term strategy for how you are going to live your life. So, this gets turned off, to save – the same way the thing digestion gets turned off, to save the fuel, to save the energy, to the save the attention of the body for what's really needed in that moment.

So, if I'm feeling like, "Oh my gawd! There's a tiger chasing me!" when all I have to do is figure out what buttons to press on the software to shift – I go, "OK, wait a minute," all right boom, boom, boom, got it, done. But it's amazing how those things just leave your brain when the stress response takes over.

Jodi: Yes, yes. And a good way to know that is when your pupils are really dilated, when the black part is really big, like, if you are trying to have a conversation with somebody and you notice that their pupils are ginormous – my old parent coach used to say connect before you correct – like just try to help them calm down. Because the conversation will go much better, if not you will probably start a fight over something silly.

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Dr. Loscalzo: Exactly. Exactly. There's all those things. And it's also as you learn to see people's bodies, you can see the tension. You can see the tension in the jaw, and you can see the tension in the neck even and their head starts to like do that kind of thing [demonstrates a head thrust forward stance]. Yeah.

Jodi: Well, one thing that I've noticed you do that Steven Cargas called – your tone is very calm and soothing. Just the way you talk is very relaxing. So, people, when they are mirroring you, and your breathing is calm, I think just by being in your presence it is very calming.

Dr. Loscalzo: Thank you. Yeah and that's what you can do, everybody can do. It's being aware and having the tones fluctuate. So, if I am telling a story and I am trying to get the suspense up, it is going to be a different tone than if I am trying to calm somebody down and let them drop into their heart space and increase their vagal tone.

Jodi: This was so amazing. Thank you so much. And how can people learn more about you and your work and maybe some of your meditation?

Dr. Loscalzo: Yeah, so, drritamarie.com is my main website and we have lots of free stuff out there. We have programs for pretty much everything. We have hormone balancing, elixir recipes for free, and breakfast recipes and all that. So, I would just head over to the drritamarie.com site and take a look around there. We also have practitioner training programs where we train people who are either health coaches or doctors and nurses who really want to get into nutritional endocrinology. More, how do you manipulate the body function using nutrition and lifestyle? So, that's all available from there.

Jodi: Anything else you wanted to add?

Dr. Loscalzo: Yeah, just trust your body and learn to observe it. HeartMath calls it, they have a name for it, but observing what quadrant you are in. It's like where are you right now? Right now, I'm feeling excited, so I've got that level of excitement there. And then I am feeling very safe. So, it's like where are you falling? I love their grid. They have a grid and I used to explain it to people before I even had that tool. And I'm like, "OH, they've got a picture for it. It's really good."

Observe where you are at right now. What am I feeling right now? Am I feeling stressed? Do I have high level excitement or low level? So, there's all these different emotions and there's a time and a place for all of the stuff on the positive side. So, there's a whole range of positive emotions. There's a whole range of negative emotions.

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Dr. Loscalzo: And there's room for those negative emotions to get away from the stress response. You don't want to stop when your tiger's chasing you and go, "Oh, let me breathe." No! You want that response then because that's going to save your life.

But if you are sitting there trying to get a report done where you need this part of your brain, it's learning to just go [breathe in and out deeply], "I can do this" and activate what you already know is in there.

Jodi: It's funny. When Max died, that was my best tool. I used to say, it was like looking through a screen door. Some people say it's like watching a movie of yourself but that ability to be the objective observer and not necessarily feel like you were in it so that you could make better choices.

Dr. Loscalzo: Exactly. Yeah, and the kind of stress you've been through is like a parent's worst nightmare. And it's, how do we respond to that without collapsing? And you couldn't. You have another child to take care of. You have a life to take care of. And we want to just collapse but knowing that we can activate that part of the brain that goes, "OK, what do I have to do to move on?" And allowing yourself to have your moments and then, "OK, now what do I have to do to keep moving on?"

Jodi: That saved my life. That's why I am doing this summit because my world collapsed. There were different blowups every single day. I realized that whenever – I'd have friends that were catastrophizers and, if I kind of went on that train of thought, I was just out. It was almost like I couldn't even function. Then, when I was able to keep it together, I felt better, so I started noticing, when I felt better, like what did I do right? And it was always activating the parasympathetic response.

Dr. Loscalzo: Yep. Yep. Absolutely. And we always have access to it. That's the thing. We don't feel like victims when it happens out there, right? If you feel victimized, "Why did this happen to me and this is horrible!" Or you can just, OK, yes, you've got that feeling. Oh yes, you want to process through grief, not at all saying you should be stuffing it because that's not good either. Processing, what do I need to do to move on? How do I get back into the parasympathetic?

Jodi: Yeah! And my therapist actually says, "Victims only see problems, survivors see solutions, and thrivers see opportunity." And it's all a shift in your brain and your nervous system to get out of – I almost challenge anyone, if there's a problem in your life that feels insurmountable, if you can practice some of Ritamarie's techniques and help yourself ground and center and get into that heart space, all of a sudden, you will see so many more possibilities. It's not like this unsolvable problem. It's like, "Oh look! I could do this, I could do that."

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Dr. Loscalzo: Exactly. And it doesn't take away from needing to feel and feeling but that – that can't take over. And typically, that's what victims do. It's like everything's wrong no matter what you do, and they just never can move forward. I love that. I am going to use that if you don't mind.

Jodi: Oh no. Steal it. Steal freely.

Dr. Loscalzo: I love it. I love it. Beautiful. Jodi: Well, you know it's interesting. I got to interview Dr. David Perlmutter as well, who is the gut/brain expert, and, at the end of the interview, he said kind of the same thing. That it's really all about mindset and empowerment and, when you are able to decide that you are very committed to healing and that your ready not to live in that stress state, that's when the true healing can begin.

Dr. Loscalzo: Exactly. And that's why I start every program with activate your parasympathetic, active your parasympathetic. Let's start this now.

Jodi: This was amazing. Thank you so much for your time.

Dr. Loscalzo: Thanks for having me. I thought it was awesome, too. I had fun. Thank you.

Jodi: Thank you.