Introduction to Trauma and Stress Physiology

Welcome to this interview on the Biology of Trauma Summit 3.0. I'm your host, Doctor Aimie. We're talking about the trauma disease connection. And what is this connection?

How does it actually happen? That trauma becomes our diseases, becomes our physical health? Now, in this interview, what we talk about, some of you will have experienced this as what will be causing a stress response in your body.

But for some of you, what we will talk about today is causing a trauma response, a trauma physiology in your body. How will you know the difference? Let me share with you that when we talk about stress, it doesn't matter what the source of stress is, because there will be a point.

There will be a line that anything up until that line is reversible is fixable. But once we cross that line, there will be lasting effects and there's more that we would need to do in order to repair the damage.

Just like the words that we say once, if we're just thinking about what to say, we haven't crossed that line yet. And so there's it's reversible. Right.

But once we say something out loud, we can't take it back in. And so there's possibly more damage that is done, which means that there's more repair, there is more effort that will need to go into repairing the damage.

Once that line is crossed. And what we think is something that we say out loud, just like that, there is a line in our biology and that line is the difference between stress and trauma.

Let me share with you how to know the difference so that as you go through this interview, you will know of what we're talking about has caused a stress response in your body or a trauma response.

Here are the three states of the nervous system and we see that we have parasympathetic. And I have put this as a healthy nervous system and actually a healthy nervous system and also sometimes go up into this state, which is the stress state, so that there's a healthy balance between them.

And this up here is a high energy state. So this is the stress response. This is where we are actively responding to the danger in our life or inside of our physiology, as we'll talk about in this interview.

Down here is the trauma physiology. So what makes the difference? What makes the difference between our bodies going from a stress to a trauma? Physiology?

There is a line and that line there are two things we can look at. Two things that cause the body to go to cross that line too much, too fast or too little for too long.

So let's think about too much, too fast. This can be any type of stress, whether it's emotional, mental, whether it's physical like exercise or whether it's surgery or whether it's a detox that we're doing those would all be forms of physical stress, and then there would be environmental stress or things in our air and our water, in our food that once we take those in or sometimes even just on our skin, they are stressors, they are toxins, they are assaults to our system.

Understanding the Three Nervous System States

And we can have too much stress and it causes our body to go into that experience of overwhelm of this is too much, too fast. I can't process all of this as fast as it is happening.

Is is too much too fast. And when that happens, the body goes into an overwhelmed state and it's and it crosses that line from I'm just stressed about it, too.

I'm overwhelmed by it. Overwhelm is the trauma physiology. Now there's this other category and it's too little for too long. This is the category of when we need something and we've had too little of it for just too long and our body can't take it any longer.

It can't keep up. It's resources are depleted. So we can think of someone who maybe is running on a calorie deficient diet and they don't have as many reserves.

And so maybe we ask them to do a stress like run a marathon. They're already calorie deficient. It's going to be too little or too long. Now we can have that with our nutrients so we can have nutrient deficiencies that will create a too little for too long.

We can also have too little of love, too little touch, too little of social connection for just too long. And that will be what causes that line to be crossed from stress to trauma.

How does that look on our graph? We can see that when we go from the parasympathetic into the stress. We're up here in the high energy state. We're actively fighting that danger, fighting that stress, fighting that assault.

And then when we get overwhelmed or like our energy drains and we actually go into metabolic conservation, something that we will discuss in this interview.

So these are the three states and I do have this on my website in case that you would be it would be helpful for you to have that guide. So if you come here to my website, trauma Healing, Accelerated Icon, you scroll down and I have a section here on resources and this is where you would come.

You would come to the essential sequence guide, where I have the three, the three states of the nervous system, and it breaks it down into what those states are and more into the too little for too long or too much too fast.

With that, we're going to talk about metabolic chaos and the stressors that contribute to that metabolic chaos. To join me for this conversation is my good friend, Reed Davis.

He is a double board certified holistic health practitioner, certified nutritional therapist, bestselling author and popular expert in functional lab testing and holistic lifestyle medicine.

He is also an environmental paralegal and conservationist, and Reed is the founder of the Functional and Diagnostic Nutrition Certification Course, with now over 4000 graduates in 50 countries.

As we mentioned in this interview, many functional diagnostic nutritionists come over into my professional training program and become a biology trauma professional as well.

And they are powerhouses. They are on fire and really changing the world in their corner of the world by combining the FDA and training with the biology of trauma training.

Reed can also be found outside in his projects, including landscaping and not only riding riding motorcycles, but riding his tractor to do that landscaping.

So I am very, very honored to have Reed here. And let's jump in this interview. Reed, you know that I love what you do. And one of the things that I really admire about how you piece together your model is understanding the effect that stress can have in creating metabolic chaos.

So from your lens, how does stress create the imbalances that then create the metabolic chaos? Well, there are physiological, chemical things that actually occur in the body.

And interestingly, it doesn't matter what the stress is, you know, you hear all the time in our business, all disease begins in the gut.

Reed Davis on Stress and Metabolic Chaos

Even Hippocrates said that. I think Muhammad said it, too. And so this is what I've heard. I don't go with it. I'll say it certainly circles around to the gut enough that we think it is the major contributor.

And and that's true. So but stress is really the father or mother of all evils, you know, and it could come in so many different forms these days. I know you know, this back in the nineties, I was actually in environmental law and conservation.

So saving the whole planet air, birds, water, trees, bees. And, you know, the environment's really rough on flora and fauna and everything else. But then I started thinking, well, what about people?

And so was this. Since Richard I went changed careers and I went to this clinic and right there on our waiting room table, or it was a magazine on science and nature.

And it said that the number one reason for all doctors visits was stress, and that 50%, at least of all diseases, were caused like identifiable diseases or caused by some form of stress.

So that was 2001. I read that a while ago. Right. So I became I thought I would just study stress or if I could, if that's the reason why everybody's in the doctor's office, if I could handle it, master that in some way or small way, then I could help a lot of people.

So over the years, you know, I'm known for running labs and the lab guy ran every kind of saliva, urine, blood, stool, hair, skin. You know, there's a lot of testing you could do.

And it all the matter. What I found was coming back to this person was assaulted with either, you know, mental emotional problems, physical problems, chemical biochemical problems, things in in that environment, of course.

But I just threw it down and down on all these causal factors and and hacking stress. So if someone's sick today and I don't really I don't see I don't care what the problem is, but it doesn't matter what the problem is.

We use always something upstream of some stress or and you know, you use the term already I call them contributors to metabolic chaos. And then as we uncover what those things are, we're finding these contributors in all over this person's world from again, they were mistreated.

There's some mental emotional thing. They hate their job. They hate they're they're not in a great relationship. Their money, whatever it is, kids are bad, different things that can goes in the body and causes disease, processes, little breakdowns here and there.

You see starts like you get your hormones, bleeds over into the immune system. You got digestion, you got detoxification systems and such energy production, autonomic imbalances.

It we can go on and on oxidative stress. So so I learned to check all of these things because I'm not going to just treat one thing in a person, you know?

And that's the secret to our methodology is who treat every cell tissue organ in system in the body at once, the entire organism. We're really very holistic practitioners because we consider all these things and so yeah, I want you to ask me any questions.

I'll answer anything. So when you I mean, I'm just imagining that you get all these lab results back from someone and you see kind of the what you have described before is like this constellation, right?

Yeah. Not just one system that's off. It's several that are off. And that's what you call them, the chaos. Because if we can't just go to the one system when they're all off, we've got to be able to see the pattern, see that upstream effect that we know to go there, rather than trying to address all of the downstream effects.

Yeah. So symptoms we would consider downstream and what's upstream can be, you know, back to the basics could be mental emotional stress could be physical.

Personally, I've had injuries from sports and they left their, you know, little badges of honor around my shoulders, my neck, my back, my knees, you know, you name a sport, I've done it.

And so so I walk around. Going to say, what are those? Just injuries from sports or maybe injuries from fun as well? Well, yeah, it's you're going. To call your fun sports.

Work hard. Play hard. That's right. So, yeah, it could be lifting rocks. You know, my hobby, among other things, there's motorcycle riding and landscaping.

So I've picked up rocks that were bigger than I can handle. You know me, I'm going to like, oh, I can get that one. And next thing you know, I'm walking like, oh, my back.

Well, that that pain does the same thing is emotional pain or as the effects of, oh, my God, the environment, the air, the water, the what's in our food, what's in our personal care products, what's in our cleaning products and and on and on and on.

And what they you know, and it's just amazing what's out there. A note to listeners, if you really want to know what's going on in that area, personal care and food and you know, cleaning with the Environmental Working Group has always been a good resource for me.

EWG talk and research and when you quit doing a lot of things, hopefully, but we go much deeper than that. It's like the foods, the food sensitivities, and that's an assault.

It can affect all kinds of systems in your body. You would think just your digestive system, no neurotoxins and all these other issues that just depending on the person is going to filter down have an effect on other areas, and then result in some kind of symptomatology, which unfortunately is where most medical treatment goes just to the symptoms.

So we always want to look upstream and I start with these basic categories of stress and it's been a lot of it's actually been fun for this quarter century to be a health detective in that way.

Just what? Well, what are the stressors? You know, it's never been enough for me to just say, here's something, you know, this is out of balance or this is just, you know, seems like your thyroid is not working.

Well, you can just treat the thyroid, but you got to realize, this is what I love to see, Doug, Amy, is that I gave up on the word root cause because of this.

Now everyone uses that and it's not a bad thing to look for, but you may never find it. There's not enough labs for every root cause. And the other thing that is and there's always multiple causal factors, here's what almost no one considers those causal factors to have an effect on each other, and they're not even singly measurable.

So you our way of thinking is the paradigm is that, well, there's always multiple causal factors and the more you can identify and work on, the better that person is.

And it actually outperforms specific treatment. Now, the gravity good way we say it is, we treat nothing specifically. We treat everything non specifically.

So we have an our modalities and therapies and our lifestyle holistic self-directed care program is works on every

cell tissue, organ and system at once.

So it in a sense doesn't care what your end product is. Symptom is we're just going to go upstream, bring harmony back, eliminate the causal factors and people just are improved it and it really doesn't matter what their manifestation is.

Migraines, kids with ADHD, really bad skin conditions, obviously the digestive stuff, it's tiredness, fatigue, foggy, think you just name anything that's common and we go upstream and help people fix it.

And you've used some pretty significant words. You've used the word assault a couple of times in regards to the different types of stressors. And even with food sensitivities, that food sensitivities is an assault on our body.

When when I think of what's happening internally, I'm like, Oh yeah, that's very much happening. And of course that's a major stress on the body and it's a stress that you can't walk away from, right?

Like you can walk away from a difficult conversation.

Finding Upstream Causes and Hidden Stressors

You can't walk away from your own body where there is this assault happening inside. And then you describe how we need to go upstream to create the harmony, to create the balance, and then that sorts everything out downstream.

Yes. When you look at all of these types of stressors that cause an assault on the body, are there ones that you have seen be more damaging that if we could change those first, it makes a bigger difference, then some of the others?

Or is are they all seeming to be the same or unique for each person? It's unique for each person. But you have to respect all of them again. No, I just put them into three basic categories.

You could find to go into those and maybe find some subcategories however you want to define mental, emotional, spiritual angst, things that happen more in the mind and emotions of a person can be just as devastating as, Hey, you work in a factory and aren't wearing the proper protective gear and the stuff sitting on your skin and in your you know, that they're both stress a stressor of some sort.

They both could have really devastating effects. You could even get the same symptoms, believe it or not. That's why the investigation is so important.

And you have to look at the whole person. We run more than one lab and then still, you know, and then we get these findings. We go, well, here there's some things you can work on.

And even then it's it's not to take this for that. It's it's a journey. And you're constantly uncovering obstacles to healing. And this is where the individuality comes in.

One obstacle might be that you had your gallbladder removed and forgot to tell us, you know, and so your bile flow, it just isn't what it needs to be to break down fat properly. So you've got all these problems around fat, digestion and assimilation and things.

So that's where a previous injury or surgery or something is a major stressor. And some are you don't get gallbladder back. You know, they don't regrow, unfortunately.

And by the way, folks, you have no extra parts. So don't let anyone tell you you got to so you can do without one. We need both of our kidneys, both of our eyes and things like that.

So so sometimes when you are uncovering these obstacles to healing while you're working with the person this

way, the health coaching aspects are looming so large these days, I think because a good health detective will never give up and always realize that there's a causal factor, you know, less.

And again, if it's a gallbladder missing, well, you're going to have to use some things she likes. But let's say those obstacles to healing are in your mind and emotions.

You've got to uncover them. You've got to resolve them. Now, if it's your neck, is nerves pinched, that's a whole nother physical thing. Like for me, I have this very well used body and and I have to get I've been doing, I've done, you know, all the acupuncture, massage and chiropractic and body work and things like this.

But now I find that they're I let them go. For so long I lived in pain, you know, like, oh, yeah, you go to bed now if that's the way it goes, but suck it up.

You know that man stuff. Then I realized that it. Male There's pillow therapy and there's platelet rich plasma therapy and there's stem cell therapy and there's, there's stuff you can do to actually get the function back.

So you're not suffering. So whether the obstacles to healing or a dysfunctional joint both my shoulders one from motorcycle one from football. My left knee is from skiing, my right knee is from something else, you know, jujitsu, my lower back and oh, no, no surfing, neck injuries and stuff.

So so you get these obstacles to healing and there's there's God with modern medicine and therapies. There's so many things you could be doing if you're willing to invest in your health.

And and the other thing, the mental image on those labs sound expensive? Well, that's an obstacle that you don't value your health enough to spend a little money on yourself to figure out what's really wrong, you know?

So you just use that approach, as does our approach to overcome obstacles to healing. Identify as many as you can up front, of course. But then it's a process healing takes time.

A good doctor, a good detective will never give up. You know, I love that. There's always more that we can do. So how would a person know what labs we're talking about?

Like, are we just talking about? Go to your physician, go to your medical provider, and have them run a panel of labs. How would they know which labs to see if they have this metabolic chaos that you're talking about?

Well, everyone has no worked in a clinic for ten years or and thousands of lives and thousands of people. And but I never would just pick one lab based on their symptoms and, oh, I found your problem.

Here's your medicine. Come back in three months. It was more further upstream than that. By the way, most listeners have or know someone who has been told nothing's wrong with you after looking at standard bloodwork.

And that's really frustrating. But it made for me that was like my backyard. It's like, Oh, I've been told nothing's wrong with you and you know there is something wrong with you.

Well, let's run these functional labs. Alternative. 25 years ago, they were considered so out of the box, you know, now they're more accepted. We've seen alternative medicine go from alternative to complementary to integrative to functional.

And that's a better model than we've seen from the licensed practitioner, because they're at least looking upstream somewhat. I think you just need to identify more things.

That's why our training is. We look at the hormones, we look at the immune system, look at digestion. We look at detoxification, energy production, the nervous system, and that spills hidden DNA.

Makes it easier for me to remember. And that takes about five labs, right? And that would include oxidative stress

and food sensitivities and oh, by the way, parasites, bacteria, funguses viruses, other assaults that we're all subject to.

If you've traveled, I know you travel. I travel. And sometimes you you realize something's wrong and it's just something that that's your environment doesn't have.

The other one does. You're not used to it. And we're not with the built up immune system for and things like that. We're all subject to it. And so yeah, it's, it's the opposite of what we do is what I call the sounds like method.

A common one for some listeners might be, well, it sounds like thyroid because there's about eight or nine very reliable cluster symptoms that points to thyroid.

Sounds like thyroid run authorities. God forbid their thyroid slow. You're going to think you found their problem and you're going to prescribe something for their thyroid.

That's not a bad thing because it's relief cure. But if so, that person who's coming to you as their letter on on your medical will, your diagnosis and treatment mentality, what they need to do is have another letter or switch the letter to a different as well.

What are all the underlying causes and conditions and factors involved in hypothyroidism? Because it's caused by, believe it or not, stress is again another huge factor.

Low thyroid could be your body trying to protect you from, you know, using up all your resources to to fast and metabolism. In a sense. It's kind of hibernating because that's what it's supposed to do when you're under stress, conserve resources.

So slow, slower, it could be low for a reason, for a damn good reason. It's actually protective and adaptive.

Functional Lab Testing and Whole-Body Assessment

And so if you just go, Oh, it sounds like low thyroid symptoms, here's your prescription, they might even go away. Some of those symptoms have been fixed.

Anything you haven't gone upstream, part of so so we're we're that our whole mentality is really care about the symptoms so much. Yeah a little intelligent relief cares okay.

As natural as possible. You know something that doesn't have any side effects if you can do it and then really do go fix it all and that's it sounds like a dream to some people, but it's actually what so what we do.

In the biology of trauma model, I incorporate different elements all at the same time and it sounds like that's what you do here as well. And I'm guessing that just like what I'm able to see over on the trauma and emotional side of things, you're able to see here that when by addressing all of them that you're actually able to help people get results faster.

Is that what you're seeing? Yes, there's there's basically your relief phase where people just feel better. They at least within a very short period of time, you know, a couple weeks.

And it was good. And everyone says, I think we're going in the right direction. So those are clues. You know, we've discovered some things and put some better habits into a person's holistic program and then it keeps getting better and better from there.

Again, as you continue to investigate, there's basics. Again, I gave you each ADF and and then from there there was obviously other things to look for resistant cases where you've got to get a little deeper, different labs and maybe even some more serious therapies.

You know, I'm not against relief cure getting rid of symptoms, especially if the person's really suffering. So there's nothing wrong with relief. But what we do is we focus more on the corrective.

And we found that you can't beat nature. You can't be the creator of the universe. You know, when it comes to how does the body work, this innate intelligence, it's in every cell.

You know, let me ask you, have you ever had to teach a cell what its job was? It just knows. So you have to feed it, right. If to give it all of what is genetically required to operate, you know, it has to make energy at the right rate quality quantity that requires the right proportion of proteins, fats and carbs, for instance.

So diet becomes really critical and so does rest and sleep. Do I have to explain anyone that sleep is important? No. But getting them to do it is a different story.

And this is why, again, it's always a process exercise. I mean, I'm sitting right now, but soon as we're done, I'm going to go outside and play and get active and use my my body, have fun or work and so diet, rest, exercise.

Then there's that stress that we've been talking about, stress reduction, whether it's mental, emotional, physical. And I can I do I go see my orthopedist for PRP and stem cells I get massage I obviously do other things that relieve stress from a physical and mental, emotional and chemical point of view.

We eat, we grow our own vegetables. We don't eat food that has pesticides and herbicides on it, etc.. So, so you so there's diet, rest, exercise, stress reduction.

And lastly, I take supplements, you know, I have things that that help because food isn't good enough. It's not grown. I mean, we grow some of our own, but it doesn't the soil's depletion.

There's not enough vitamins and minerals in food anymore, even organic. You just you avoid the herbicides and pesticides, but you're not getting that much more.

You need you need vitamins and minerals in the sense of fatty acids, amino acids. You need antioxidants, trace elements, butter, nutrients. These are all critical for the good functional cells because they know what their job is.

If you just would remove the bad things, get everything in need genetically. And so supplements can help with that. You can stimulate your immune system if you're going to trip, you can support your digestion.

If you've got a little problem there for temporary. So so there's lots of use. And so I told you about hidden stressors and dysfunction. We investigate, use labs questionnaire sometimes and then we apply the principles of the degree assessed diet restrictions.

And that's what we have control over. And, you know, typically, again, people have to get their letter on the right wall if it's just they think they have a medical problem and but are told by the will you don't your bloodwork looks normal.

Okay, then what? Where do I need to put my letter? It's on this investigative, you know, self-directed self care program. And I love how you broke it down to the individual cell, because when we look at an individual cell, we can ask that question, well, how much stress do I want my cells to be under?

How much salt do do I am I okay with my cells dealing with on an everyday basis? And how can I start to remove the obstacles of healing for that cell.

And and this. Yeah. And cells are usually part of some tissue. That tissue can be part of an organ. That organ is part of the overall system. You think of an adrenal cell was it's part of the adrenal there's actually four layers, you know, the whole biology of it, the anatomy.

But that is falls into the endocrine system. So you have just that's just one system and everything's connected to

everything. So what happens to our hormones when we're under stress, regardless of what type punched in the face or bad words or, you know, chemicals in the air?

Where is your cortisol to? It goes out of ratio. I don't know if this is where we want to go because it gets kind of complex, but it's it's it sounds complex.

It's actually pretty easy. Cortisol is your stress hormone. It's counteracted by DHEA. They're both made in the adrenals. And so if they're out of balance, they can even be low.

But there's still out of balance. They say, well, my cortisol is not high. No. In a relationship to your steroidal hormones, it is your. Yeah. The cortisol to decreases of.

Well that means it's probably going to shut down your immune system to some extent you're going to get a dysbiosis, a bed ratio of good floor to bed to the bed floor.

Healing, Recovery, and Community Impact

Then will bigger bugs move in, you know, your immune system? And when that happens, you get food sensitivities. Now, you don't know what to eat then. And by the way, your digest is not working because you need that good floor to break down protein, etc., etc.

So that's a whole nother rabbit hole of deficiencies in intake. Well, eventually you end up with the hyper permeability and now you've got a toxicity problem because antigens and stuff is getting through into the humoral system, on and on.

And so it's, it's really a bunch of dominos and we have every single lab result along the way that you'd want to look at. But even that's only as a starting point.

You know, you still got to go back and act and change the behavior of and be a good boy. Are you talking to yourself or. Oh, yes, read. I have absolutely love what you are doing with your functional diagnostic nutrition program and consistently your people, the ones that have gone through your training, have been the most enthusiastic and the most engaged professional professionals that I have been going through my training in the biology of trauma.

So please share with the audience just a little bit of what you've been able to accomplish with this Ph. D. in program, because I am super proud and celebrating with you of what all you've been able to accomplish with that.

You know, I totally feel you on the compatibility, the the the synergy because we're helper people, you know, and it's all I was in the beginning. I just wanted to help and you know, I had no medical training, so I had to I had a lot to learn, but nothing to unlearn, if you will.

You know, it's just like, well, what can I do to figure this out? And I spent ten years, thousands of lives, dozens of people develop this little system of hidden stressors and contributors to metabolic is and then how to how do how a person could be in control and fix it themselves.

I don't want to be coming to see me the rest of your life. Just let me teach you what you need to do. And by the way, walk the talk to your best of your ability.

And so after ten years, people kept telling me, you know, read, you could help so many. You have a great practice. You're all this think how many people you could help if you would teach others.

So I started deputizing people in 2008 to my model, and now it's their model. It's this community grew. My first few graduates just wouldn't leave me alone.

And so I had to keep giving them more and more. And now it's this whole community we have above 4000

practitioner. A thousand are very active, successful people.

Others did it for their own edification or personal health only. And that was worth the price of admission. But the notices course has grown and grown and grown, and it's a certification.

You get to run all the labs, do all the cool things that we do to help people at an A level that I think is really needed in the world, by the world. Well, and that's what I see happening, right?

Like the impact that then you've had on them is that they're out there and their corner of the world and yet changing the lives of the people that come and see them because they all are also sharing this model and this lifestyle for really addressing the the upstream contributing factors to what has been blocking them from healing this.

It's remarkable. I feel incredibly fortunate and blessed. Again, I honestly didn't think of that community part of it just the the in to Thursday I taught my first workshop as all it was and and really they wouldn't go away like well what else can we you know how do we how we got in the world and and how they wanted to help people to not just learn on themselves.

So there's all the business support and everything, you know, practice model and it's really grown and I'm truly humbled and blessed. It's, it's good to be me, but it's anyone can do it.

Anyone can do it. That's the beauty of it. Anyone can do it because of how you've organized the training around it and you've broken some complex systems down into a very understandable way to see the labs, interpret the labs and know what to do and where to start.

Thank you for that. Yeah, it's it's a one day I'll have to put myself in the back, but till then, I'm just going to keep keep working, teaching, learning.

You know, I learned from you, Amy. It's remarkable how what how wide this thing can get in terms of who we can. Now, however, you saw yourself in today's interview, maybe you've had lab testing that you felt awful, but the lab tests showed nothing wrong.

Or maybe you've had all kinds of wrong things in your labs and maybe you're like, Oh, maybe I have some of this metabolic chaos, and this is how it's showing up in my labs.

Either way, what? I want you to walk forward with is the hope that we can do something, that you can do a lot to reverse this metabolic chaos and identify the different types of stressors so that we can get our body out of the trauma physiology, out of the stress physiology, and back into a safety physiology, and removing the obstacles to healing.

I hope you have enjoyed this interview and remember that you are able to purchase all of these interviews so that you have them at your disposal whenever you want.

Being able to watch them over and over again if you need to, in order to get all of this information. Because I do know that this is a lot. And until the next interview, I am your host, Doctor Aimie, for this summit on the Biology of Trauma Summit and the Trauma Disease Connection.