Getting Your Hormones Right Is Critical For Your Brain Transcript

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Introduction and Background

Margaret, welcome. I'm so glad that you found time to be part of my M. S and Neuroimmune summit. I love the topic that we will be talking about. So we'd like to have you do is introduce yourself and explain why you are a hormone expert.

Okay. I am Dr. Margaret Christensen. I am a I was board certified OBGYN for many years before I got sick myself and couldn't get how I was trained. And so ended up falling into functional medicine and have now been doing that for the past 20 almost five years in that arena and looking at complex chronic diseases and their underlying causes and stress hormones impacting every other system in the body is one of the biggest issues that we have to address when we are looking for that.

I've got a really large practice in Dallas with many different types of practitioners. We're all working together in a collaborative to help deal with chronic, complex illnesses.

Okay, great. Well, let's talk about hormones. And one of the topics that we agreed would be really interesting is the impact of severe psychological stress on our hormone balance.

Well, you know, I have to say that chronic whether it's chronic low grade stressors, you know, back to back to back or it can very big events that happen in somebody like, you know, some major trauma, a major accident, witnessing violence, etc..

It doesn't matter. Both of those things end up impacting our what's called our hypothalamic pituitary adrenal access.

How Chronic Stress Disrupts Hormones

So that is our brains influence on all the rest of our bodies and our adrenal glands and in it, from a functional medicine approach, we know that adrenal dysfunction, so our adrenal glands are what produce the majority of the stress hormones, cortisol and adrenaline are the main ones data is another one but that we you're addressing somebody we talk about adrenals first and how that impacts in thyroid hormone function and then how that impacts sex hormone functions.

So when you are in a severely stressful situation, and particularly if it's an ongoing stressor and that doesn't go away, our cortisol levels will remain very high for long periods of time until our body sort of can no longer make that cortisol response.

And then we see it plummet. A lot of people call that kind of adrenal fatigue, and that ends up, again, our our cortisol impacts every single other hormone in the body from our insulin levels to our sex hormones like testosterone and estrogen and progesterone to also our neurotransmitters in which and what neurotransmitters are being produced.

So when you have a major stress going on, there's a part of the brain also that's called the limbic system, and that is our reptile brain that runs everything in our body unconsciously.

And if that part of the brain gets stuck in fight or flight all of the time and is constantly signaling through our access to our adrenal glands, run, fight, freeze.

That's the other response or funding bit. Just trying to do everything for everybody and trying to make everybody happy. So fight, fight, flight, most people have heard about freezing is that that would be like the depression.

PS The I can't move the chronic fatiguing piece peace. No hang on. I'm going to interrupt for a moment. So everyone who's listening. Another way to think of a freeze.

If you've ever seen a cat capture a mouse, the mouse is laying limp in the cat's mouth and think it's dead and the cat thinks it's dead. And the cat opens its mouth and the little mouse scampers away and gets away.

So the freeze fixed death it. How does that show up for us if I'm having that kind of freeze response? That's a great question. So, I mean, and we know so much more about this, too, because what's the research has been going on in the whole arena of poly vagal theory.

But again, the freeze response in in ourselves could be chronic fatigue. Depression is a very common piece of that and just no motivation. Can't get up, can't, can't go and then get.

Out of bed. Can't get out of bed. Yeah, can't, can't get out of bed. We can also see some of the pot syndrome symptoms. You know, you stand up and you, you know, your blood pressure drops and your heart rate goes up and you can barely walk.

So those are not uncommon things that we see in the in the fine piece of it is kind of codependency piece that we're we're we're trying to be overly responsible to take care of everything and everybody and being super hyper vigilant and and overly anxious to try and fix something that's beyond us.

So any one of those things, the fight flight freeze or fining in small quantities, there's they're all good. They're all important. But when it's constant and relentless, it ends up actually changing our bodies.

Physiology. Okay. Sounds like it's maladaptive. Yes. And that leads to problems with my hormones in. Is there anything I can do to fix that? So how would I get out of that freezing or finding or that slide, too?

Great. Well, let's talk a little bit about how this might show up first, you know, in hormonal imbalances. So again, I was talking about the first place we usually start would be the adrenal system.

And again, our adrenal glands are producing cortisol, adrenaline, DHEA. Those are sort of the major hormones that are also responsible and helpful in water balance in the body and regulating your kidney function. So when we have high levels of cortisol all the time that aren't going away, then we start seeing impact on things like our insulin.

So that's our blood sugar levels. So for some people, cortisol also will signal store weight store weight, store weight in the body thinks, oh my gosh, I'm in chronic stress.

This must this must be walking across the Serengeti desert. This must be the one cold winter from an evolutionary standpoint. Hold on. Wait. So I can get through whatever the stress is.

So that's a very common thing that will that we'll see would be weight gain. And then our and then we get what's called insulin resistance. And insulin resistance is where it takes more and more and more insulin knocking on the cells door to allow sugar from our bloodstream to get it, so to be able to use it for energy.

So that's what we're seeing with for example, that's what type two diabetes is, is insulin resistance that has happened over time and get worse and worse and worse and worse.

And finally, tips over into the diabetic range. So this is a common thing that will we'll see. We also mentioned already mentioned cortisol impacting neurotransmitters and gut health.

And, you know, you talk about gut health all the time on all of your educational pieces. We actually change the microbiome.

Hormone Imbalances and Common Symptoms

So the good guy bacteria changes just with stress and with the stress hormones themselves that can impact the neurotransmitters. 80% of serotonin is produced in the gut.

So again, exacerbating anxiety, depression, that's something that we see both insulin and cortisol impact our sex hormones. So our ability to produce testosterone and estrogen to have regular menstrual cycles.

And oftentimes what we see with high levels of cortisol, you have excess estrogen being produced without enough natural progesterone to come with it. They need of those two things need to be in balance.

And if you have a whole lot of estrogen and not enough natural progesterone that your ovaries should be making, then this is one of the things that causes super heavy bleeding.

So you can have very heavy bleeding polyp formation. If you have uterine fibroids, that makes uterine fibroids grow. If you have any beta doses, it makes it worse.

If you have polycystic ovarian syndrome, again, it makes it worse and you have more irregular periods. And so infertility is can be a piece of that. I mean, that just makes sense.

The body doesn't want to reproduce itself if if you're in a chronically stressful situation. So so those are some of the common things that we see would be, again, weight gain.

The diabetes, the neuropsychiatric challenges and the hormonal dysfunction. Of course, when you're super stressed, you have no libido, you're not interested in sex, you're not interested in reproducing.

So that's another piece. You know, guys have a really hard time getting erections or they may have, you know, erectile dysfunction and other issues. So so those are the some of the things that we'll see impacted when you have chronic stress hormones going along.

Important to anything that we can add to take good care of ourselves. Okay. So if we're worried that hormones are disrupted and I go to my primary care person, can I just ask them, you know, check my hormone panel?

Because I think I've got, you know, stress driving my hormones into poor function. Well, unfortunately, it can't through the conventional model, you're you're probably not going to get the type of hormonal testing that that you might want to look at.

I like to look at something called an adrenal stress index, which measures your cortisol levels over time in during one day, you can have that done conventionally with some blood markers of cortisol.

It's a little harder to ask for. And also, when I'm checking thyroid, I get a complete thyroid panel, a TSA two free T3, free T4, reverse T3 as well as thyroid antibodies.

Normally in the conventional model, we're just testing a TSA agent and all the time we will see that, you know, some of these TSA may be, quote, in the normal range.

But if you look at other numbers like the free T3, free T4 and reverse T3, those will be those will be completely wonky. And we know when we're in under a lot of stress and we learned this when we were in medical school in terms of, you know, people who are in excuse their TSA rises, they go into hypothyroidism on purpose because their bodies dumping out adrenaline all the time because they're in this very stressful situation.

If you have both high thyroid and if you're making excess amounts of thyroid at the same time, you're making excessive amounts of adrenaline, you're going to put your both feet on the on the gas pedals at the same time so the body will reverse and will often slow down and raise your tts h or or slow things down or you may see no changes in it, but what you see is changes in your reverse.

T3 So those are, those are some ways that I like to measure and then I do like to do both blood and urine testing

and some sometimes saliva on the on the sex hormones.

Yeah, it's a little harder that way, but you don't even need the testing. You know, I know this. And you can get a really good history on somebody here, what's been going on in their life and what they're doing to take care of themselves and how well they're sleeping and how well they're eating and how well they're moving and and and help figure out what you can do for yourself without having all the fancy testing.

Correct me if they have the resources I like to do the functional medicine hormone panel so we can be more precise in the recommendations and give them a little time frame of what of what to expect.

And then we can monitor their symptoms and monitor the blood values to know that they are at a more optimal state. Now, how how would you say these hormones are going to be impacting the most patient or the neuro immune patient?

Well, again, the same thing. We for example, we know that estriol, one of the estrogens that our bodies produce, particularly we produce that when in high amounts during pregnancy, is actually very protective of the brain.

And if you have again, if if you are under high amounts of stress and you're producing the wrong kinds of estrogens or not enough estrogens, or you're menopausal not enough estrogens.

We know estrogens have a profound impact on the brain and on memory and cognition. Progesterone does as well.

Testing Hormones and Thyroid Function

And that is something that I think a lot of my colleagues have no knowledge or understanding of the increase impact of natural progesterone, not progestins, not what's in birth control pills, not what, what's in synthetic hormone replacement, but natural progesterone has a very calming effect on the brain.

It helps with sleep, it helps with anxiety. It has lots of other important effects, too bones, breasts, heart health. It helps improve that T4 to T3 conversion in the thyroid gland that I mentioned a minute ago.

So progesterone is super helpful and can be very useful in calming the brain. And it has been also used in head injuries. It can be used in both men and women and we know, again, it just has that kind of nourishing, calming effect and it helps you be more sensitive to GABA, which one of the neurotransmitters that has it has a Gabbert like effect on the brain, especially when taken orally.

So yeah. So progesterone like to. Worry about taking early. Yes. Progesterone we can take orally. Yeah. Progesterone we can take orally. Estrogens, estrogens and testosterone.

I never give orally just because you of them how I give them topicals. Yeah. So I use, I use. Oh if some of these, you know, if I'm working with insurance or whatever or cost or ease, I'll use topical estrogen patches.

Estradiol patches. I don't use any of the synthetic estrogens. And the other way I do is I compound. So I will do compounded creams. I use a bias sheet, so it's 80% estriol and 20% estradiol.

Again, I like the estriol component. It's the one that we make in highest amounts when we're pregnant. And so it has a lot of, again, protective beneficial effects.

I have ladies use it vaginally because again, it's it's what helps with the elasticity and we make it in highest amounts when we're pregnant. So even with boys, it's okay, you know, it doesn't impact them and it helps make the vagina very elastic and stretchy so it can be, again, very useful.

Postmenopausal testosterone, the same thing. Testosterone is incredibly important hormone for women. Now, unfortunately, I've seen a lot of people get pellets.

I'm not a pellet fan at all because once you get it in, you can't get it out of you. And you know, and in my experience, is that a lot of people out there putting pellets in who have no clue what they're doing and don't understand hormonal metabolism.

So I like to using topical testosterone cream and I have people use it vaginally ladies use of only have since we're talking mostly about women here yeah yeah yeah and I give progesterone on orally if I can also we can give it topically.

If somebody is having sleep challenges, severe anxiety issues, then I'll definitely use the progesterone orally. Because what happens is when you take it orally, then it goes into your stomach and from there it gets actually absorbed into the liver where it's processed before going out in the bloodstream.

And when it's processed, it makes those GABA like effect. That's a calming effect when you're taking things orally. Now, the reason I don't do that with estrogen or testosterone is because, again, 75, 75% of what you take orally of anything of any kind of medication is going to be processed in the liver first.

And only 25% of it gets out into the bloodstream. But in the meantime, those metabolites that are in the liver can are more likely to cause some of the the down down side effects that we don't want from estrogens, things like clotting, excessive clotting.

So that's why I prefer to watch in testosterone and either topical or oral progesterone. If I'm giving topical progesterone, I'll just I'll have ladies and men right here at night time just on their skin.

Hormone Treatment Options and Delivery Methods

And so biotics on their neck and can help a little with the brain calming effect. Guys can use testosterone on their testicles externally, and that actually helps to end up helping to raise their testosterone levels. But in the form that you're talking about, this is compounded or there is estradiol testosterone available as a prescription.

There are private encryptions. So they can estradiol patches are common like by the all claim area. And I'm sure there's other versions of that progesterone there you can get the brand name from atrium is is one of the ones that's come that you can get no issue with peanut oil though it's in peanut oil and so some people don't like that it's probably chemically sensitive.

Yeah. Then there's, you know, there's, there's colorings in the capsule and all that. So but for most people that are fine testosterone, I have not used it commercially available.

Testosterone for women I prefer because most women are using the testosterone also just to help with libido. And I find that using it vaginally and on the on the clitoris and the vulva is amazing and helps and you're actually nourishing those tissues right there.

You're making them much more sensitive and it doesn't hurt, you know, your partner if you're sleeping with them. And so. Yeah, okay, you can get testosterone.

There is testosterone that is available in like in gel forms. So I just don't use them. And so as everyone who's listening here, I think we've gotten you excited about getting a proper evaluation of your hormones, getting support for your hormones, and finding a practitioner who would be knowledgeable about doing the evaluation and then giving you guidance.

How how would the listeners of the summit find practitioners who would be knowledgeable? Well, I think if they went to I have a mortgage, so it's two functional medicine would be very helpful and an organization I'm part of it is ACA.

I talk international society for environmentally acquired illness is as another place to go in there I think. Yeah, I affirm that. Org a great place to go.

They have a wonderful database that's very international. So yeah, yeah. I think that's the best place and you know, the other thing you're one of your questions you asked me at the beginning was, okay, what do we do about it? You know, what?

What can we what can we help to do for our stress hormones besides, you know, all the self-care pieces? Many, many, many of the clients that we end up seeing in our practice have the trifecta of they've had some type of traumatic head, neck or spine injury at some point in their lives.

They've had chronic stressors and or PTSD they grow up with in an adverse childhood events environment or have been exposed to, you know, major traumas along the way, or if they've just been chronically sick for a long time and going from doctor to doctor, doctor not being listened to in and of itself and PTSD.

So we know that traumatic brain injuries and when I'm talking about head, neck or spine, too, it doesn't have to be a concussion. It can be anything, you know, on there that causes neuroinflammation, chronic stress and PTSD in and of itself causes neuroinflammation and then bio toxin exposure.

So when we're looking at things like pesticides, heavy metals, toxic mold, that's an area that I've done a whole lot of work in plastics, pesticides, those things themselves cause neuroinflammation.

When you put all three things, three of those together, then you have chronic nerve inflammation. Oftentimes it's happened right there in that limbic system that that part of the brain that is unconsciously regulating all all hormonal systems, your sleep wake cycles, whether or not you want to eat or not, your gut function and your hormones when you're not producing and whether or not you're interested in sex, that's all coming from the limbic part of the brain, which is also constantly scanning through the amygdala for whatever stressor is going to come jump out again.

And that's also where our hippocampus is, that our memory center. So when you go under, again, chronic inflammatory stressors and you've particularly you figure out that triad, which is me, you are much more likely for your brain to get stuck in the the the pattern of chronic fight or flight.

Chronic fight, flight freeze or fine. And so we can disrupt that pattern. And there are some amazing programs out there to be able to do that. And so there's a couple of them that I like to use with my clients.

One is anti Hopper's dynamic neural retraining system at retraining the brain outcome. The other is. Gupta Amygdala retraining is a new one that I found that is really great for the next level up for executive function and performance is called PCU or Positive Intelligence.

Rewiring Stress Responses and Finding Help

And then there's a lot of also devices that you can use to help retrain the brain, but we can stop those chronic loops of, oh my God, I'm never going to get better.

I'm chronically stressed. I'm worried about everybody, everything, everywhere. I can't sleep. We can learn how to stop those. And that is part of these programs that you can do.

And so for some of my clients, when they've been under super chronic stress or a lot of PTSD, then I will have them do that. Another way to address that, particularly traumas, can be something called EMDR, and I can't remember what the acronym stands for, but EMDR has to do with rapid eye movements and a way to retrain retrain the brain with a therapist that can you can go back into old traumas and rewire your brain so you don't get triggered all the time.

So that that's an important tool. And things like acupuncture, I also use alpha stim units a lot these things that clip to your ears. Yeah and put your brain into an alpha state the great for sleep, for anxiety, for pain for PTSD.

So those are just some of the ways that we can help unlearn the pathway that gets stuck in this limbic loop. Okay. This was amazing. There are so many resources to have a deeper understanding of why your hormones can get

derailed. And and you really need probably an IFM trained practitioner to get that deeper understanding.

And then there are things that we can do that can help us rewire our response. MARGARET This was just so phenomenal. What would be the one message that you want people to take from our conversation.

That there is great hope in our our body and our brains ability to rewire itself, and that even in the most dismal and darkest of circumstances, there is light.

And we can we can tap into our bodies, self-healing mechanisms and reach out for support around others. Okay. And, Margaret, where do people find you.

At Carpathia Collaborative dot com. So Carpathia was the ship that picked up the survivors of the Titanic. And we have the Titanic of Western medicine treating the the tip of the iceberg and not not dealing with root causes.

So I've got a large collaborative group. I'm in Dallas. We we do the full spectrum and really a lot of advanced tertiary care or, you know, high level functional medicine that yeah.

So and also multi talk STRATCOM. So I've done a lot of work with mold and toxic mold exposures and all that entails. So that's another good place. Yeah. Well, this is wonderful.

I could talk for hours, but this has been so helpful. Everyone, listen to this and think about listening to it a couple of times because it was so packed with really great, great information, great.

Thank you, Margaret. You're welcome.