The Impact of Mycotoxins and Chronic Illness on Hormones Transcript

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Introduction and Speaker Background

He he. Welcome to today's episode of the Mycotoxins and Chronic Illness Summit. I'm delighted to have Doctor Margaret Christiansen with us, an Institute for Functional Medicine faculty member for 13 years.

Doctor Christiansen first became interested in functional medicine 20 years ago when trying to solve the riddle of her and her family's complex health challenges.

Unbeknownst to her at the time, were consequences of severe toxic mold exposure. She became intimately familiar with chronic fatigue, fibromyalgia, autoimmunity, and the hormonal, neurological, and psychiatric consequences of unrecognized bio toxin illness.

A board certified ob gyn for 23 years. Her initial boutique functional medicine practice has grown into the Carpathia Collaborative, a large multidisciplinary functional medicine practice based in Dallas covering the full spectrum of complex, chronic disease.

The practice provides 360 degree functional lifestyle and nutritional medicine, and includes an onsite teaching kitchen, yoga studio, and education library that also serves as the site for community learning events.

Doctor Christensen is passionate about educating her clients and colleagues about root cause, whole systems, medicine. She's been the host of the very successful three time Toxic Mold Summit.

You can visit it at Toxic Mold Project. Com. Welcome, Doctor Christensen. Thank you so much. Thanks for having me. Thanks for being here. Very happy to have you here.

So today we're going to be talking about mycotoxins, illness and hormones. Yeah. Doctor Christensen, what kind of hormonal imbalance can you see with mycotoxins?

Really a pretty much any system. In what? In doctor talk, we call the HPA axis the hypothalamic, the hypothalamic pituitary adrenal axis. Although anybody who's really been doing functional medicine, whole systems medicine for a long time know it's the hypothalamic pituitary adrenal gonadal gut, you know. Yeah, everything everything is connected.

So we can see, hormonal dysfunctions across the, the broad range.

Hormonal Effects of Mycotoxins

So, certainly in terms of women's hormones, everything from infertility issues to things like roses, uterine fibroids, early menopause, heavy bleeding, challenges that can all be there, in the realm of, metabolic dysfunction.

That would be diabetes and insulin resistance. That's a huge another piece. Of course, we know this is an incredibly stressful, these mycotoxins and just the whole thing that surrounds mold is just so much stress to the, the whole body.

So our adrenal glands become involved and our cortisol and adrenaline, and then, because, oftentimes we are breathing these things in through the nose.

We're getting a lot of brain and neural inflammation, and then all the neurotransmitters become affected. And as you and I both know, we know that, so much so many different hormones in the body are metabolized in the gut.

And so, when the gut is also compromised because of, mycotoxins and bio toxins, illness in general, again, you

can pretty much see any, any system affected men as well.

So, with men, we see a lot more of the cardiovascular disease and also things like erectile dysfunction. But, certainly we can see, abnormalities in testosterone levels, as, also very common. So.

And then I didn't even mention thyroid. So the thyroid gland is in there, as well. And, we certainly can see, problems with, triggering things like Hashimoto's, thyroiditis and, anti-terror globulins, can go pretty high also in toxic mold illness.

So pretty much, whether you're talking about sex hormones, whether you're talking about thyroid hormones, whether you're talking about adrenal hormones, whether you're talking about metabolic hormones like insulin, cortisol, any, any area can be affected.

Great. So I heard you mentioned the sinuses. I think that's a big overlooked issue even amongst functional medicine doctors and naturopathic doctors. And it's one of the first places that I treat.

Sometimes I might even treat their before the gut and, use them in the gut. First. But sometimes people sinuses are just screaming so loud. So in most of my patients with mycotoxins illness, I'm seeing a lot of brain fog, a lot of energy depletion.

And, once we we clean up the sinuses, they really turn a corner. And I'd love to hear you talk about that. I'd love to hear you talk about the olfactory nerve and how that impacts the rest of the nervous system, the vagus nerve.

And, you know, this is such a huge piece of of the equation because and when we are breathing in, poor air quality, just poor air quality in general, too.

So this can be somebody who lives near a freeway or in a polluted city or, you know, just even using a lot of, for example, fake fragrances and things like febreeze and plug ins in and the house, you know, separate and from, toxic mold exposure.

But with toxic mold exposure in particular, it's incredibly irritating to the sinuses and creates a lot of sinus inflammation and also to our smelling nerve.

That's the olfactory nerve. So that's the oldest, sense that we have. And and you can find it in any, you know, the most primitive of one celled organisms.

They have this chemo tactic or smelling sense of their environment. So it's a very old sense. And when we're breathing in into that olfactory nerve, it's a very short nerve.

But it goes right from the back of our sinuses. Right into the brain, and particularly into the area of the brain. That's called the limbic system. And, and it's, it's passing along the way, the pituitary gland.

But the limbic system is composed of three major parts. Again, this is simplified, but, we're talking about the hypothalamus. That's the master regulatory center of the brain.

So all hormones are regulated through the hypothalamus, along with gut function and GI and all that kind of the, automatic body systems are all feeding into the hypothalamus, which is then directing the pituitary gland, you know, hey, telling the body, is it safe or not to reproduce is it's time to eat.

Do we have sex? I mean, do we sleep now? All of those things? So I didn't mention melatonin, too. There's another hormone that's involved there. So hypothalamus.

And then the amygdala is part of the limbic system that's always scanning the environment for, oh, oh. Is there, you know, as a tiger going to jump out and bite me.

Sinus Inflammation and the Limbic System

And the amygdala is what is communicating, directly with the adrenal glands to say, run, fight or flight, you know, fight, flight or freeze. And then the hippocampus is the memory center in the brain.

And that part is what's remembering sights, sounds, smells, taste, trauma, to, to tell the amygdala, oh. Run, fight or freeze and and tell the hypothalamus, yes or no.

Turn this on or turn that off. So those three components of the limbic system, are running, completely automatically in the reptile brain, and they're running all the time.

And when you have the olfactory nerve getting inflamed and toxins traveling, along that nerve right back into the limbic system, it sets it on fire. And on top of that, if you've all, if you had any kind of head, neck or spine injury or any head trauma, at all, again, that creates neuroinflammation.

And then if you have gut issues, we know that the vagus nerve, which is connecting the gut, the heart, lungs also, and into the brain, again, right there into that limbic system area, you can get inflammation coming up from that way.

So when you have chronic inflammation in your sinuses, whether it's chronic infections or just chronic, drainage and allergies, that olfactory nerve can really stay irritated and stimulated all the time, impacting all hormonal systems in the body.

And you now we're talking about mast cells a little earlier. And it's also a big trigger in the mast cell area. Yeah. It's such a huge topic. It's truly overlooked.

So I'm just so happy to hear you talk so much about this. I know you talked about this on your own summit as well. So thank you. Really exposing this piece.

It's a it's a huge one. So it's important I'm sure this is what you're doing is saying you probably you may have somebody else talking on this summit, but you know, again, the importance of doing sinus rinsing and, and then we use different types of botanicals and prescription antifungals to treat this area. Can be huge. It can make a huge difference.

Yeah. Yeah. I often have people, use nebulizer argent and silver. I found that if they do it five times a day for two weeks, it really helps create an entryway to come in with amphotericin or whatever, whatever else is needed.

And I also use, nasal probiotics, to do that at the end of the day and rub a little bit of coconut oil on the inside of the nostrils to keep it moist in there.

So it's an environment to help with them to killing off of the infection. They're all good things. Yeah, you can use it, in your nose too. And. Yeah. Yeah, exactly.

Yeah. In a classification problem too. Yeah, yeah. In fact, the probiotic I use is from kimchi. Okay. Yeah. Yeah, I think it's called nasal biotics. Yeah.

So tell us about how mycotoxins impact all hormones. If you could start with, the female sex hormones first. That would be exciting. Well, I think I think again, there's, there is different mechanisms that how how mycotoxins are impacting.

So there's both direct and indirect. So direct mechanisms would be that the mycotoxins themselves can imitate or mimic what a hormone looks like and can impact or turn on the receptor for thyroid, for testosterone, for estrogen.

So we've seen that. And there's a particular Michael talk in call Lauren. People say it in different ways, but it starts with a Z. That has a very profound estrogenic, components.

But we also know that some of the tricky scenes also can impact, directly thyroid receptors and testosterone receptors. So, so you can have that direct effect on the receptor itself acting like a pseudo hormone.

So that's one way, hormones are impacted in the second way. Or things that we already talked about is, is again, you're creating this inflammation in the area of the brain, in the limbic system, in the hypothalamus, impacting the pituitary gland that is directly responsible for signaling, hormone production.

And so, mycotoxins can impact hormones that way. And that's a little bit more, indirect. And then you have again, mycotoxins, impacting the metabolism of all the different hormones, for example, in the gut, because mycotoxins have such an impact on the lining of the, the gut itself, on the interior sites or the cells that line the intestines, as well as on the microbiome of the gut, which we know is very, very involved in appropriately metabolizing hormones.

So, just they're in those things alone. And then you have things like in the liver, can mycotoxins, can really impact many different detoxification pathways both in the liver and kidneys.

And so those are also can, then influence hormone production. And then you have the whole problem of mycotoxins turning on the immune system or, you know, creating autoimmunity and attacking things like the thyroid.

But you can also see it with, in the, you know, with the ovaries and, again, and antibodies against ovaries and testes, and then with leaky gut itself, that can be created, that also, creates and then all the stress hormones that are made just trying to deal with this whole thing in the body is in fight or flight all the time.

So you can see, you know, again, the very broad range of hormones, and, so. And did you want me to specifically, kind of delve into a little bit of the women's hormones?

That would be great. Yeah. I see you having you as a as an ob gyn. I'd love to hear your your thoughts on on this, because it might mean you're approaching it from, from two different angles.

So yeah. Yeah. So absolutely. Yeah. You know, sleep disturbances is, another huge, impact to, and that also, makes makes a huge difference in terms of all metabolism of hormones.

And then, you know, when you're chronically sleep deprived and you're anxious all the time and, you know, impacting the neurotransmitters that can affect everything from PMS to, again, fertility.

Female Hormones, Fertility, and Pregnancy

So, let's just talk about some of the common things that I'll see, from from leaky gut. Get in. Dimitrios, is that's, that's that's one of the mechanisms that we see with an image ptosis.

Besides what we call retrograde menstruation. But I really think that a lot of endometriosis has to do with the fact that when you have increased intestinal permeability, you are actually weeping cytokines, across the lumen of the intestines, and they're kind of dripping down into the bottom of the pelvis, on the peritoneal tissues.

So that's then, we have this sort of the Saran wrap that, there's called peritoneal peritoneum that lines all of our, pelvis and covers all of our intestines.

And in that, our cells that then that can become very irritated by these different toxins and they can, contribute to endometriosis inflammation. So, so we start, you know, again, gut healing helps with that.

Because of the estrogenic effects of, some of these mycotoxins, we can see very large fibroids. I have seen some huge fibroids among women who, have been in moldy situations.

Now, there's often genetic predisposition to that. But because there's so much inflammation created, we those that inflammation is, turning on, a hormone that turns our testosterone into estrogen, both for men and women.

So you see, you know, men, men with, you know, man boobs and, and, but women, too quick. And you're stimulating, both weight gain again. Fibroid growth, etc., infertility, miscarriages are another thing.

I mean, and this is very well known in the animal literature. We know that, exposure to, mycotoxins in grains is one of the things that creates miscarriages among, you know, cows and, you know, pigs and sheep, that are eating those things.

So it's been well known in that particular arena. So anybody who's had recurrent miscarriages and then this history of chronic sinus infections and all that, I mean, they need to get worked up for mycotoxins exposures.

So those are those are common things I see in some of the younger women. And then, of course, you can certainly exacerbate PMS, PCOS, as, as well, because you can get disruption in insulin metabolism and that contributes to polycystic ovarian syndrome.

And then the PMS with, you know, all the irritability, the breast tenderness, the the anxiety, depression, mood swings, etc. that's all those neurotransmitters in the brain and in the gut being affected.

So those are, you know, a whole wide range of things that can be, happen, you know, in my case, early menopause. It was, it triggered. I was in my, you know, early 40s and with my, initial exposures.

And so, that is, you know, another thing that we can see, and in both men and women, we can see a lot of hot flashes and night sweats. And again, we I know that you see that with Lyme as well.

But, when you're having a lot of night sweats and you're in, you're, you're premenopausal and or you're a man, I'm wondering, okay, where is the where's the mold exposure coming from?

And or do you have a, you know, one of the co-infections, with it. So, those are, those are common things that I see from a, gynecologic infertility and very heavy bleeding.

Also, you can see super heavy bleeding. Thank you for this. One thing that I don't think I've heard anybody speak about except for you, doctor Christensen is about leaky gut, leaking down into the pelvis.

That is, That makes so much sense. Nobody talks about that, so. Yeah. Yeah. And there's there's some interesting data, when I, when I've given lectures for, for IVF, in their, in their, applied function medicine clinical practice course on the women's hormones piece and also in the advanced practice module, you know, we talked about some of the data looking at, again, this translation, I kind of explain it to, you know, when you kind of, when you scrape your knee, and you're just kind of scraping the skin and it kind of bubbles up and you get you get this kind of clear stuff that's kind of the same idea is that you're getting these clear trans you these, you know, transit aids across, through, the, intestinal tract and which is draped all over our uterus and ovaries and it's, you know, goes down into, into our pelvis.

And, again, so you can create so much inflammation there. And also that also impacts the gut. Right. And I love to hear about fertility. And so how can fertility be impacted by Michael toxins in both men and women.

I imagine that piece of, of of the leaky gut has a lot to do with that as well. Yeah, yeah. No. Hugely. And again, because it's a hormonal disruptor and it's a, it's an abortive patient too.

I mean, that's again, that's, that's what is seen in the animal studies. So you can, you can end up having, you know, multiple miscarriages. Again, men's, sperm counts and their testosterone levels can be markedly impacted.

And we certainly see in men you can get erectile dysfunction. And as, as well and, and then again, you can have infertility for all the reasons that I just talked about the PCOS and Dimitrios, uterine fibroids, you know, all that short, you know, abnormal cycles, low levels of progesterone, all of those things can be impacted in various ways, right?

So a lot of the times, these patients will just they'll just go to an ob gyn or, or their primary care doctor and they'll

get put on, hormones, oftentimes synthetic hormones.

But the gut's not addressed and the limbic system is not addressed. Detoxification pathways are not addressed. And then and then they, they get put on these hormones, and and there's the there can be a negative effect.

Let's talk about that. Okay. Yeah. Well, yeah. I mean, that's a that's a big thing, you know, I mean, people get IVF, they get preterm birth control pills, like, you know, and and all those things can work.

But then you have the problem that if you're still full of mycotoxins, they can also be passed on, and they're fat soluble. So, anyhow, so, you know, that's that, that, that's something we see as well.

So and and then, you know, again, we can see more problems during pregnancies, as well, hypertension, you know, failure to thrive, failure to grow, the, those kind of thing.

That's for somebody who's very severely sick. And, yeah. So, and we, you know, I recommend women take phosphate to the colon during pregnancy anyways, and PC.

So we both talked about using that as a okay, right. And then when people have dysbiosis then they're not able to metabolize their, their hormones. That's right.

And and then there's more of a mess. So I think clearing dysbiosis first is is important. Yeah. Yeah. So you and I talked I mean, we do a lot of the same things that we again, start with, you know, again, we got to clean up the sinuses and then we address the gastrointestinal tract.

And then we, I mean, this is the order I do things and sign it. Yeah. This is an intestinal tract. About the same time, start working on opening the lymphatic, the lymphatic and drainage systems in the body, and then, start up regulating detoxification mechanisms.

Me, too. I follow the vaccine. Yeah. And then, you know, unless somebody is, like, super, super sensitive and having a lot of mast cell issues, then you need to start, start with those things. First.

Exactly.

Limbic System Retraining and Vagus Nerve Support

But, but I don't I don't do any kill protocols, like, you know, killing off Candida or killing off, Lyme or dysbiosis or anything until I've, gently worked on those other areas for me to, like, find them if I don't address well with my patient load.

Because I have a lot of tick borne illness in a lot of their cells on a hair trigger. So if I don't address mast cell first, they can't even handle detoxification therapies.

And if I don't address detox before killing, they can't handle the killing. So the following that order is so important. Tell me how you address the limbic system dysfunction to improve hormone imbalance.

Well, that's a great question. So again, what happens, with the limbic system, that we talked about involving the hypothalamus, the amygdala, and the hippocampus is that it gets turned on and it gets kind of stuck in this fight or flight mode all the time.

And this is running completely unconsciously. And if you have a history of, also of growing up in less than optimal circumstances, and having what we call adverse childhood events, growing up with abuse or traumas or, you know, alcoholism or neglect, and or at any point in life experiencing, any of those things, as well as, just the trauma and PTSD of being sick for a long period of time and often going from doctor to doctor.

And, you know, nobody recognizes that this is what's going on. So oftentimes we see folks who have been, have

had a lot of, adverse childhood events and or trauma in their life.

And so their limbic system is already they're in fight or flight already. From, from those things. And then they've been sick for so long that they feel like crap.

Nobody's helping and everybody's just telling their crazy, you just need here's your antidepressants. And then you're having all the side effects from from those medications, as you do from, you know, from the fertility stuff.

And, so again, that's, that's pretty traumatic. And then if on top of that, you've also had any kind of head, neck or spine injuries. So any kind of concussions, whiplash, bad falls, even things like having, as a kid being hit a lot on the head, and or using large firearms, falling out of trees off of horses, you know, off slides off offenses off of bikes.

And we, we do the doctor Aymond thing, which is you have to ask somebody ten times whether or not they had it ever had a head, neck or spine injury. So all those things together create neuroinflammation, any one of those things by itself.

But but so many of our clients that you and I are seeing, they have all three of those things. They have, frankly, traumatic brain injury, chronic stress and PTSD symptomatology.

And then bile toxin exposure, any one of the three which can trigger limbic system activation. But you put all the three together and that limbic system has been on for years.

Right? Right. And you and I both know that we can get rid of the line. We can get rid of the mold, we can treat everything. But people are still symptomatic, and nobody's ever addressed.

How do you calm the limbic system? I use a couple different programs. And again, you know, I've, I've learned at the foot of, Doctor Neil, Nathan and other greats, you know, who've come before, but I use Annie Hopper.

Hopper's a program that, at retraining the brain.com. Also, refer to up to amygdala retraining and, per doctor Neil Nathans recommendation, using brain tap.

Brings up highs. So those are those are good ways to do it. I'm also very lucky that we do have a, functional neuro neurologic chiropractor here at Carpathia, who does a lot of, work with, also some some brain retraining, but really trying to get that limbic system.

Calm down. I have people quit watching the news. You cannot watch anything that's negative. That's intense. That's going to get your adrenaline up. Only funny things. Only laughter. Joyful.

Playful, benign. You can watch gardening shows. And, I like watching house remodeling shows, but for some people, that's very traumatic. Especially if you had to do remodeling yourself.

Right? Right. Comedies are good. And, But, yeah, you can't watch anything that's, really stimulating there and get really super good self-care, trying to get yourself into bed, really improving sleep quality.

Those are all ways to address the limbic system. You can do you can do tapping as well. I do, we do a lot of that. There's I use alpha stim units. I have a, I have a very old alpha stim unit that I've had for, I don't know, like 20 years now.

And we recommend patients. So these are all ways to, address and at the same time, you're doing the limbic system, you also need to do the vagus nerve.

So vagus nerve activation singing gargling, humming. Again same thump laughing smiling. Right. Yeah. And that's and many of those things are incorporated into the two different limbic system retraining programs that I use. But, all that's really important to activate that vagus nerve, get it, calm down.

And then to use the limbic system, to really chill out. Yes. We use the exact same techniques, actually. Of course we do. We practice so similarly. Yeah.

Is there anything else that you'd like to address that we haven't covered today? On hormones. Well, I think, you know, some of the other things that can be helpful, would include using, some peptide therapy.

So, I will use, nasal VIP. Not for everybody, but that can really help with bringing back memory. I also use C link or Cmax I o I haven't, I haven't tried that one.

Okay. That's a good one. Those are great. Yeah. I'll use RG three. Synapse and also which as an anti-inflammatory is a, it's a nasal peptide that can be used to help stimulate new neural growth, especially with these complex, brain injury folks.

And, and then BPC 157 can also be intranasal and help with a lot of, Sibo and gut symptomatology to kind of get things moving. So those are some of the things that, that, I like to do.

Peptides, Progesterone, and Estrogen Support

I think it's just also really, really important to work, every day on, you know, focusing on hope and. Yes, and joy and, whatever you're grateful for because that can also really help, to turn things around.

This is a complex topic, as you know. And, can be overwhelming. So just one day at a time and just, just focusing on what's kind of the next right steps are can be, super helpful.

I probably would say I use a lot of natural progesterone. Natural progesterone is very calming for the brain and for the nervous system, and it's often very depleted in folks, who have been under a lot of adrenal stress.

And we're having heavy periods and bad cramps and so natural progesterone, either topical or orally in the second half of the menstrual cycle, if you're using something topical, you can do 25mg a day, early, 100 to 200mg a day.

That's a prescription, though. And then, you know, Perimenopausal I use it a little differently. Three weeks on, one week off and post-menopausal, just depending on the situation, I may have somebody on it continuously.

So I think, natural progesterone is very as a very useful tool, to help in the, a lot of the hormonal imbalances. It does so many different things. And then what about when a woman needs, estrogen as well?

How do you do you like to do. Oh, yeah. So, again, so what I'm what I'm doing first is really cleaning up everybody's diets and getting things working, and I have, like, a ten day hormone flush, protocol that we also do, to get rid of the excess estrogens.

And then when doing hormone replacement therapy, I'm using, bioidentical, very low dose. I use biased, so it's, it's mostly estradiol and a little bit of estradiol.

You know, there's, there's a lot of people do a lot of different things, a lot of different ways, but I, I use that and have used it very successfully for a long time.

I tend to use a lot of things vaginally. I just use a little bit of testosterone vaginally. That can be super helpful. You can use smaller amounts, when you're using things, you know, mucosal, some people use sublingual Cherokees and all that.

I don't like that. Because to me, that's still using stuff orally. You're still swallowing a lot of that, right? My my preference is not to use oral estrogens, because what you're doing to upregulate or increase the, your, your liver metabolism and some of the clotting factors which are already problematic and mold.

So I avoid oral estrogens or progesterone can be okay. My preference is, transdermal, estrogens and testosterone

and preferably vaginally. Also, DHEA can also be used very successfully vaginally.

And can really help also with, preventing bladder infections. Preventing vaginal infections, helping with vaginal dryness, painful sex. As you and I both know, many, many, many women, get yeast infections because they've been on tons of antibiotics, because they've been sick all the time from the mold.

So not only are they getting external mold and mycotoxins exposure, now, they have internal fungal overgrowth from yeast. And so exactly. Yeah. So I use antifungals fairly liberally to both botanicals and prescriptions need to.

Yeah. Well thank you so much. Welcome. Would you like to tell him about your gift? Yeah, yeah. And, so, you can, Rachel, I have a program, through mold, mold detox diet.com, which is for lay individuals to help them walk through this whole process.

And we, you know, again, kind of look at our, protocols. And, we have a little free snippets from, from each of the there's eight modules in that, and so, we can offer that as a free gift if you are our practitioner and are watching this, doctor Gail Clayton and I, created the advanced mold immune module to really help people understand the whole role of what mycotoxins do to the immune system.

And and it's not just about market toxins, actually. It's learning about 22, you know, polarization and, and, polarization and actually the all the T cells and mast cells, if you're a layperson, just you don't have to know any of that.

But, most people have heard of mast cells at this point. Right. So we go we, we delve deeply into how to how to address that. And that's, that's, that's, quite advanced.

Although we've had some, lay folks who are, who are, you know, biohackers and geeks, take that course. So we do have a little snippet, of each of the modules on that, too.

So I'll make those available, to your participants. Thank you. And can that be found on your website, too? That'll be found at Mull detox dotcom. Yeah. Yeah.

So my website, my website is Carpathia Collaborative. Dot com. But those, you know, again, for the practitioners and for the lay people wanting to know exactly what to do immediately mold detox.

Dicom has those two different, ways you can do it. Great. Well, thank you, doctor Christiansen. You're so welcome. Pleasure to have you. Nice. Nice to meet you, too. All righty.

Good luck to everybody. Thank you.