Detoxing Your Brain To Help With Cognitive Decline Transcript

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Introduction and Dr. Schaffner's Background

Welcome to this episode of the Reverse Alzheimer's Summit. I'm so excited to introduce you to my friend Dr. Christine Shaffner. She is skilled in so many diverse skill sets.

She has trained with Dr. King Hari and many other legends in the field. She has created products. She is the host of many of her own summits, and she has also created some phenomenal programs, online programs, where she goes into biological medicine and pulls from all of the systems of medicine and healing modalities, helping patients to reclaim their wellness and reveal their brightest light.

Dr. Schaffner, thank you so much for joining us. Thank you so much. This is always so lovely to connect with you on. You as well. So one of the big things that certainly I focus on in my clinical practice, we both are naturopaths where colleagues are not and in fact had some of the same teachers that last year.

And this detox process was really one of the foundations of our training. And it's completely absent in the conventional medical world. You kind of you say detox and conventional MDs kind of roll their eyes.

And yet we see how big of an impact it makes on on health generally. But it particularly on cognitive decline. So can you just explain a little bit about how the brain specifically detoxifies?

Yeah, absolutely. And you know, I love her naturopathy roots and that, you know, we're always coming from this place that when there is any state of imbalance, you know, it's up for us to be detectives, right?

To kind of remove those obstacles so the body knows what it knows how to do best in that field.

How the Brain Detoxifies Through the Glymphatic System

And I think we've gone about that a lot in this modern life that, you know, we have this amazing capacity to regenerate, repair and heal. We just have to get those boulders out of the way.

And when we look at the brain, you know, I was so excited when I found out about the lymphatic system and this was something like newly discovered in 2015.

And that gives you even like shed some light. You know, here we are recording this in 2023 and we're still figuring out about the body and the brain and the brain.

And so, you know, I think a vast frontier that we still have so much to learn about it. But when I learned about the lymphatic system, I thought even conventional doctors would start screaming about the importance, because it just made so much sense to me with, you know, again, our training, of course, that we have this amazing network of lymphatics, that drain on brain that made to keep our brains healthy from normal metabolic waste and all the things of everyday life and the onslaught of toxicity that we know is at the root of cognitive decline.

You know, we know it's one of the foundational elements that is keeping our brains sick is the modern build up of cumulative stress of heavy metals from aluminum and mercury and lead and arsenic to microplastics now that are, you know, in every ounce of our body into electro smog that's affecting our pineal gland and our neuro neuronal communication to glyphosate and herbicides and pesticides.

And we could go on and on and on. And, you know, we have to think like we're here on the planet now. This is our life and hopefully we can change this for future generations.

And I am an optimist, but we have to really live a lifestyle of detoxification and the lymphatic system, especially

when we're thinking about preventing cognitive decline and reversing cognitive decline and Alzheimer's.

We absolutely have to have an understanding framework and ways to optimize the drainage, which I'm happy to break down for us. But but yeah, I think whenever you're treating the brain, you have to have to have to think about the system.

And so what does it do exactly? Yeah, that's a great question. So the goal in that system stands for glial dependent lymphatic system. Again, this is new, right?

We thought the brain was like behind this blood brain barrier in this great wall in China and there was no, you know, lymphatics or immune activity in the brain, which is, of course, you, you know, behind us now with our our knowledge.

And so these glial cells, specifically astrocytes and astrocytes, you can kind of picture this kind of star shaped, supportive immune cell that is job is to really, you know, take out the garbage, you know, in the brain.

And what the astrocytes do are they form this beautiful network of connection. And what this network looks like is on the end of these star like projections.

There are these what we call aqua porn channels. And the aqua porn channels regulate the fluid, the flow of fluid that bathes our neurons, bringing nutrition and oxygen and all the vital things for life to the neurons and most importantly removes waste.

So normal metabolic waste, we know there's research around amyloid beta also there is research on, you know, all the things that kind of get into the brain that they shared.

So there's research on viruses that helps to clear out aluminum or other metals, other pathogens. So at night our brains actually shrink and is 60% in size, especially during REM sleep also in deep.

But REM sleep is the time in the brain that our bodies are paralyzed. But we have this really high metabolic activity, our heart rates going up, our blood pressure's up and there's this influx of blood.

And also along the blood is the cerebral spinal fluid. So the brain shrinks and just rushes through our brain and brings all this beautiful oxygen rich nutrition and then removes waste.

And then it gets shut out, out of the brain along the veins, so so along the venous system and the jugular veins in the neck. But there's also kind of highway right in the middle of the head, if you can think about it.

And there's a lot of drainage that happens through what we call the crib form plate or the olfactory system. So that kind of if you take a cross-section of your head, it would be right in the middle there, like where your nose is, and then it goes in, drains through the chancellor ring, the wildfires ring of contract tissue and then the landfill gets recycled.

Sleep, Melatonin, and Supporting Brain Drainage

It's kind of all the lens makes its way back to the thoracic duct, which is on the left side of the body around the clavicle where the lymph goes back into circulation and then the right side of the head in the right arm and the right upper torso is on the right lymphatic duct.

So we have this movement of bathing the brain at night again, that's heightened at night. Most active during REM. And we know, right when we don't get a good night's sleep, we feel crummy, we feel slow, we feel kind of groggy and we feel, you know, that our memories might be harder to recall.

We feel like we're maybe emotionally more labor. I feel like there's a lot of things we feel, you know, when we don't get a night's a good night's sleep.

And what my understanding, at least at this time of the lymphatic system is, is that, you know, we're not getting optimal self cleansing of the brain when we don't have optimal sleep.

So sleep is a super important way to support this system. And it's almost like you're like rinsing your brain, right? You're getting out the toxins that maybe you were exposed to that day because you smell of air freshener or you drove on the freeway and there were petrochemicals or something.

Or maybe it's just that every cell eats and poops and accumulate some degree of metabolic waste that we need to be able to get rid of. You also mentioned amyloid plaques and we've seen in the literature that even people in their twenties, thirties and forties accumulate amyloid plaque at a higher rate when they're sleep deprived.

And so in just one night, this can happen. And so we can see how over time that can lead, of course, to to Alzheimer's and dementia. So sleep is critically important.

I love kind of two part question. One, what do we do to enhance our sleep and make sure we're getting that really optimal sleep because not all sleep is created equal?

And then two, is there anything we can do outside of sleep that could also be supportive for the lymphatic system? Yeah, great questions. And you know, everyone's walking around with some sleep tracking device now between like the aura and the garment and this and that.

Right. And there is a way to disconnect that from, you know, being actively connected to Bluetooth while you sleep and still get that information. And I but we get so much, you know, I'm been getting even more information than I ever have since I've learned about sleep and what's wonderful.

It gives us that biofeedback right away. So if you have any insomnia or you're struggling with cognitive decline or wanting to prevent or reverse Alzheimer's, I would highly encourage that.

You get an aura type ring to help, you know, support kind of good decisions that you're making to improve your sleep. And so one of the these sleep tracking devices, you know, really kind of give you a grade like how many, you know, how long was your deep sleep?

How long was your REM sleep? How many REM cycles you've had? They also look at your heart rate variability to look at how engaged your parasympathetic nervous system is, which is the healing state for the body.

And it also looks at oxygenation, you know, sleep apnea. There's a whole other conversation we can have and how that's so detrimental to the brain. So, you know, we want to make sure we're getting that, you know, 3 to 4 cycles of REM every night.

And so that's going to be everyone's going to have their unique kind of sleep, you know, blueprint, right. And so we want to kind of see where your baseline is and then kind of optimize that.

So I have tons of tools in my tool kit because I am from that understanding in that it's like we tell people they need to sleep and part of the reason why they're sick is all the factors that are preventing them from also sleeping. Right.

You know, so it's kind of the chicken or the egg. So we have to kind of look at this multifactorial. So we start often with the pineal gland and how do we know and to optimize the pineal gland production of melatonin.

So a lot of sleep hygiene principles, right? So turn off your blue light, you know, 2 hours, four before bed and, you know, have red light surrounding your I have to work usually after I put my daughter to bed and I have like daylight sprays, true dark light bulb that create the right environment.

I is my red light, you know, so I'm, you know, bathing in that red light before bed and that actually, you know, once you're used to that, you turn on a regular light.

It's like you feel like you been like, you know, assaulted because it's so, you know, difference in the feeling before bedtime. So that helps you to wind down.

And so we have to have some type of, you know, light hygiene and electromagnetic field hygiene. I mean, I can give a whole lecture on how that can impact sleep.

So we try to focus on our sleep and location because we live again in the soup and we can only do so much. And so if you can take all your electronics out of your bedroom, make sure nothing's plugged in the bedroom because that just having something plenty more concrete, a field, you know, mitigating dirty electricity, that's a whole thing that you can do using filters through there.

Steps are great in way even seeing if there is dirty electricity which are spikes and surges, but then the kind of electrical wiring of the home and that actually can be very disruptive to the brain. So that's important.

Turning off your Wi-Fi router off at night. And if you are really struggling with a neurological, you know, illness, I would even encourage you to try to get your home, you know, grounded and corded and not have wi fi.

We just know that it depletes melatonin and glutathione and all the things that we need to heal. So, you know, those are, you know, some quick sleep hygiene things.

And then, you know, I'm a big believer, even as an average path of using melatonin and melatonin in a liposomal form, as well as transdermal and suppository, and even high doses can be quite therapeutic for the body.

So I feel that again, because our pineal glands are affected by fluoride and glyphosate and aluminum and MF, we just live in a melatonin deficient time and kind of the pros outweigh the cons of any potential negative feedback loop because we need pineal melatonin, our mitochondria need melatonin, our gut microbiome.

And there's so many assaults to all those categories that I think the body can withstand a therapeutic dose, especially when you're recovery. So, you know, I usually start people off with like a liposomal and they'll take anywhere from 12 to 30 milligrams.

And then if we're really trying to clear their brain from toxicity, because again, the melatonin helps with circadian rhythm, but it also assists with lymphatic system for detoxing the brain.

So we will use that in either like 50 to 400 milligrams of suppository and oh wow. Yeah, do that with a provider. I know. I was really nervous in the beginning when I tried that, I was like, Oh my God, people are going to feel horrible.

But when it's the right thing at the right time, people really feel good from it. So I use a lot of melatonin and then we love Gabba Gabba. I created a cream with Marco Ruggiero called Shamanism and we use the Gabba to, you know, not only have it like an inhibitory effect in our on the brain and calm the brain down but our pineal gland uses gaba.

Microbiome, Infections, and Lymphatic Congestion

GABA actually helps to balance noradrenaline and people are high stress and traumatized. They have a hard time entering in from deep sleep into REM sleep.

And that that kind of barrier is this high noradrenaline. So GABA can kind of lower the noradrenaline to get optimal REM sleep. And REM sleep is the only time the brain is like literally devoid of adrenaline.

So we kind of need that time to reset, you know, and heal our traumas. It's a really restorative time for the limbic system as well. So sugarplum is like such a great tool and like mast cells have GABA receptors like the more like you read about melatonin and GABA, it's like, you know, unless there's something wildly wrong, like most people do really well with it and tolerate that.

So, you know, those are kind of my, you know, first go to sleep and then, you know, again, we're always thinking about how to detoxify the pineal gland from those assaults that I, you know, share.

And so living the lifestyle detoxification that we can, of course, go into more depth. And then I look at also the brain microbiome, you know, which is, you know, again, more and more there's more and more an awareness and a more and more of research to show that we have a we have like microbiomes everywhere.

We just have to accept that. Right. You know, so I know in the Alzheimer's research, they figured out like the herpes viruses, especially herpes simplex one, right.

Is that, you know, the middle the plaques, I believe I remember reading them. Went into both camp. Right, and then put into Valleys and Lyme and the fire Keats of course covered that. Yeah.

Or found in the plaques and tangles. It's really wild. Fascinating. So, you know, I think even like amyloid beta, right. Is an antimicrobial peptide. 100%.

So it's just like this, you know, again, the body is wise. You know, we have to just hear it from that wisdom. And so, you know, I treat a lot of Lyme and co-infections, so that obviously can have a huge neurological impact and impacts sleep and are transmitters and all the things.

And as you mentioned, it's like the bucket, you know, now long COVID and COVID viruses and retroviruses, parasitic infections, mold, all of that, you know, so we look at that microbiome and often, you know, not only like this kind of neuro inflammatory kind of piece that can help quiet the brain for sleep, but also antimicrobials or, you know, antivirals, etc..

I can actually help the people, you know, sleep better, like 5 minutes and Alpha One or Liposomal cocktails or, you know, even, you know, I'm an acrobat, so I don't use Valtrex a time, but I've seen even Valtrex even help people sleep.

You know, it's kind of like a different thought, right? And you mentioned like, okay, you know, we have the sleep component and then, you know, how do we like optimize the Guillain-Barre drainage, you know, and, you know, in the lymphatic system kind of principles of the telematic system is it's a interconnected, body wide network.

And where there's stagnation in one area, that can affect pulling and stagnation and another area. So we really want to like tender a whole the system in order for our brain to drain.

And the most obvious place to start is the cervical lymph node. So if these are congested with like chronic bartonella and the protein bar and mercury in your mouth and all the things, that's going to be like a traffic jam, right?

For the length to come out of your brain. And so then that can create poorly. And my friend Marco, who I mentioned, who helps me create my products, he even studied the brains of children with autism, so different than, you know, Alzheimer's.

So you can see a lot of the research is like this study, Alzheimer's and autism, a lot, you know, and it's just kind of different stages of life, but very similar common denominators.

Right. And they studied them. They found through ultrasound that there was more pooling of fluid and children who had autism. And when they drained the cervical lymph nodes with actually ultrasound, the brain and Glenn's attic fluid decreased.

And so that was kind of the brainchild of us creating lymph flow, which is like if you decrease the lymph congestion and the neck, the went somewhere to go and then, you know, just kind of think upstream, okay, do you have chronic sinus issues?

You got to tackle that. You know, do you have chronic tonsil issues that attack that chronic dental issues that are, you know, tackle that and then you just scan your body.

Do you have, you know, breast implants? Do you have scars? Do you have other implants? Do you have chronically swollen belly? You know, like then that's probably a lot of pulling and congestion.

Do you have you know, you don't even have to have edema, but you have pain or cellulite or, you know, just fluid, you know, and poor circulation in different areas.

And that's, you know, a little window into like you might have limb stagnation, you know, downstream. And, you know, again, the whole the the brain isn't this in isolation?

It's like connected to the whole body, you know. So we have to think about the lymphatic system in relationship to the whole body lymph as well. Had it really helpful.

So what about I was just talking to somebody else today about vibration play. It's like would that be a strategy as well? Yeah, yeah. The vibration plates are awesome.

You know, there are you know, when I was at the biohacking conference, it was kind of fun. They were like walking people through like you can stand on one, which is great, but with caution and then with guidance, especially if you're needing support, you can put different body parts on vibration plates and that's really helpful.

We just my friend just created this little like wand that you can use on your face and like a handheld vibration tool. And that really helps to move the lens.

So that's really awesome. So we've been really loving that. So yeah, vibration plates, dry skin brushing those even like jade gua showers can be really helpful.

A lot of the things that people do cosmetically actually helps your brain health. You know, when you think about it like LSD light, I mean aside from all the toxic stuff, but you know, like LED light and then facial, you know, sometimes you get people to really do that stuff for cosmetic and then they're like.

The side effect is like, Oh, my cognition is better. Yeah. How do you totally. I think there's something there. Right. You know, so so yeah there's a lot of home the things and you know, most of my patients, I mean, I want to empower them with home tools because this is like day in and day out.

Of course, we like have a limb therapist. We have awesome length equipment, we have like all sorts of things too. You know, I do neuro therapy. We do all the stuff in the office to get people's limbs moving.

But like the real healing happens at home. Yeah. So I want to double click on the sinus conversation and we can even go into tonsils and dental too, because you mentioned all of those and it makes a lot of sense, right?

Like it's the anatomy, it's the geography of our our head and our brain and our bodies that these things are very close to the brain.

Sinuses, Tonsils, and Dental Sources of Brain Stress

And so there are pathways like you. You describe the crib before and plate and the olfactory nerve that runs straight from the nose up into the brain.

And then also the the teeth are connected. The jaw is connected to the sinuses, and the sinuses are then connected to the brain through that crib front plate.

So all of these things are connected very directly. Let's talk through some of the pitfalls that people run into there. Yeah, absolutely. So and you know, just an aside, I had an a personal experience where I had a benign tumor in

my pituitary and how the surgeons went as like they went through my nose and they opened up my spinal sinus and then opened up my cell and took out.

And the God bless them, people who know how to do this right, you know, not to grow, said you everyone out. But I'm just trying to share. Like if you had any doubt the proximity of your sinuses to your brain, I'm walk in telling you there's a complete connection.

You know. So we want to tend to the microbiome, right? So the nasal microbiota, you know, even prior to seven or eight years to type three inhaled Alzheimer's.

Right. That, you know, when people are in mold environments, you get colonization and dysbiosis in your sinuses and that can produce bio toxins that travel up to the brain and keep the brain in this kind of chronically inflamed state.

So that's really important. So we do like lots of sinus irrigation, like my good friend Dr. Greg Eckel, he created a sinus spray called Clear Mine. That's like H2O, SEAL and DMSO and Frankincense and rose.

We love that. We love like propolis and different combinations of herbs and silver and you know, you name it, we've put it up it nice noses, right? And just to get that, you know, irrigated the ozone, you know, we'll do a lot of the sinus ozone for people. You just don't want to breathe in. And so the sinuses are important in that way.

I think you just really want to balance the microbiome. And then also on the flip side, you know, it's also an entry way into the brain. So if we're trying to get a therapeutic effect in the brain, often doing an easel spray is a really great way to deliver that so needed or what have you.

You know, we can put in the, you know, sinuses to actually help you know, whatever we're trying to do in the brain. So, you know that the you know, those would be the big ones.

You know, that I think about when clearing the sinuses. You know, obviously, COVID has had a huge effects, you know, on people's olfactory bulb. And, you know, even we I've read some research, too, especially in long haulers, you know, the virus can be gone, but it's the immune inflammation that lingers, you know, that has created, you know, the lack of smell.

So really kind of helping the to some place in that modulate the immune system in that area and also reboot the mitochondria. And that tissue usually helps to regain smell over time.

Well and then tonsils and dental. Yeah tonsils were big. Like I feel like a kind of a broken record like most of my patients have. What we call tonsil interference fields and via regulatory medicine.

And this is where the ring of lymphatic tissue often, like I ask people, did they have chronic strep when they were younger and mono or Epstein-Barr? Do they ever get those tonsil stones?

Do they get these sick sore throats or not? You know, you can have over, you know, exaggeration of inflammation and also what we call energy, lack of a response in that tissue.

And both are not good. Usually it's kind of the following or people, right. And so, you know, if we have all those things, Dr. Vaswani, who owns Syracuse lobster, who works for it, I don't know if he owns it, but he had a he shared this great paper that showed like when people have chronic strep.

So that can be like the pans pandas, people in the tonsils. That is an entry way to the brain for especially teenage 17,000 to age 17 cells are the immune cell cell that you want, but you don't want to be perpetually prolonged.

You want it to do its job and to then, you know, to retreat and come down. And when you have prolonged, you know, entry of the these cells into the brain, and that can create a lot of neural or microglia activation.

So he was like, he kind of had an aha moment for me when I read that. So we do like a lot and then you know, the scars can also create facial constriction in that area and can infect a limb drainage.

So we do a lot of, you know, lymph drainage here to open up the neck and the tonsils. Propolis sprays are like propolis, um, different, you know, ozone made in oil washes or oil pooling you can do and then just gargle with it.

So we're often, you know, looking at the, you know, sinuses and tonsils when we're opening up the lymphatics and then, you know, definitely the dental.

Like if you have a cognitive decline or Alzheimer's or anything of that nature, please, please, please, like work with a biological dentist with a great functional naturopathic, you know, medicine doctor, because if you have mercury in your mouth, which is still I mean, we sort educate about that.

There's some people walk in my office with amalgams and they've tried everything and I'm like, let's start there, you know? So, you know, amalgams definitely, you know, are an amalgamation of different metals, primarily silver and mercury.

Mercury is a known neurotoxin that actually settles into the brain. And so can travel through the cranial nerves into the brain. And there are there's lots of studies on the effect on like astrocytes or chemically or cells to clean up the brain, also just neurons in general.

So it's going to, you know, lead to cell death eventually as the, you know, the news there. And so, you know, we don't want that. Right. And so so removing those and then doing a healthy, supportive kind of lifestyle detoxification for the mercury.

And then we look at root canals because root canals can be dead teeth and then they can be a haven for bacteria inspired keeps. So the oral microbiome, we know there's studies to show that the oral microbiome has a lot to do with our brain and of course our heart and everything. So, you know, that's important.

And then we look for the little pockets of infection in the habitations and the wisdom teeth area that can also be full of like Bartonella to look online and co-infections to HPV to, you know, what have you.

And then that can be that chronic poison into the vagus nerve. So that act, you know, he decided nominal like lots of vagus nerve symptoms as well as from a meridian standpoint and small intestine circulation and endocrine system.

So when people have a lot of heart stuff, I'll always look at the wisdom tooth area and that can surprisingly clear that up. So and this that this whole world is a little foreign to a lot of people, right?

If you just go into your dentist and say, hey, do I have cavities where my was empty with beer taken out, or is it possible that the my root canal is the home for dangerous bacteria?

You might not always get an affirmative. So how do you suggest people sort of navigate these differences in opinion in the dental world? We'll start there.

Yeah, great question. You right because you know, you could everything I've said right now you can find somebody to like totally poo poo everything I've just said, you know what they mean.

And you know, and that's a conflict. Right. And, you know, this paradigm, like we're we're changing the paradigm, right? And so there's going to still be people in the old way, which there's still, you know, value in conventional medicine.

I had neurosurgery, so I'm not blind to that. But it's like when we're in these like chronic, we l kind of like gray areas of medicine. I feel like we're you have to shift the paradigm to look at all these factors that I've talked about.

And so I think you have to educate yourself first. You have to feel empowered because you can be swayed easily, especially if you're on the fence. You know, there's going to be people who easily tell you, Oh, don't do that, where, you know, whatever.

And then there's going to be people who tell you the opposite. So you have to get really strong in your spirit and your intuition and then, you know, really, if you're like, okay, I've educated myself, this feels true to me, then I would really work with a trusted biologic or dentist.

Finding Care, Biological Dentistry, and Where to Learn More

And the biological genders are not created, you know, equal, but they are, you know, usually savvy and kind of like some really do mercury amalgam removal.

Well, some do root canal extraction well, some do cavitation. So you want to go for the dentist that's really an expert in those areas and really around the city or start around the root canals and decapitations.

What we do like I kind of like keep people up and refer them and then I have to, you know, have the dentist back, knows. And so they do what I call in what's called a continuous CT scan.

It's a lower radiation than a normal C. T., but it does a 3D image of the whole jaw so it can look 3D and see if there's pockets of infection that would not be seen on a 2D film.

And even that's not perfect. So there are trusted dentists who've done this for so long that they have enough information to go in there and see and most times they are met with, you know, maybe more than what is visible in a film.

So so I guess really, you know do you know educate yourself the international I forget what it stands for I OMT those are the dentists that you know get trained and saved mercury amalgam removal and then there's like like anything like there's, you know, the natural parts and then there's like specialties, right?

And so you there's a, there's a beautiful network of these and insipidus, but you have to seek them out. Right? It's the International Academy of Oral Medicine and Toxicology.

Yes, thank you. I was trying to remember. Yeah, I was trying to remember the acronym. Even so, you you had me there. Thank you. Dr. Schaffner, this is such a wonderful conversation.

You said, and I know so enlightening for so many people and so many people struggling with chronic disease in general who feel stuck and like they're not getting answers.

This is such a ray of hope and and really something I would highly encourage people to look into these pieces around that, especially if it's new to you around biological dentistry and what a huge impact that can have on your brain and your cognition.

So, Christine, again, thank you so much for being here. Tell us how we can find out more about you. You have these phenomenal, amazing products. I've been taking them myself.

So tell everyone how they can find the products. And and also you mentioned you see patients so where they can maybe learn more about working with you.

Thank you so much, Heather, and thank you for having me on the show. I have a clinic. It's called Eminence Health with an I. I'm in Seattle, Washington.

Eminence needs the divine with it. And I didn't know what it meant. And I got the download and then I was like, Oh, that, that's so that is all about, you know, we do in person, we have a whole array of tools and treatments and therapies here.

And we also do telemedicine depending on what state you're in. So we'd be happy to support you in any way. And then I have a website where we sell our supplements, and that is I apothecary store dot com like apothecary but with an eye I and so you can find some of the solutions that we mentioned.

And then I also have a podcast so the website doctor Christine Shop Intercom and, and we'll have to connect on the podcast. Heather And so, you know, that is just kind of my way of just sharing kind of things that I'm most excited about and want people to learn before they might get to you and in your treatment plan.

So I love it. Thank you so, so, so much for your time. It's always a pleasure connecting with you and really a privilege to have you here. Thank you. Thank you so much.