

Welcome to the Cutting Edge Health podcast with Jane Rogers, where we discuss science to help prevent cognitive decline.

Jane Rogers: Today, we're all about brain detoxification to help your cognition. My dear friend, Dr. Christine Schaffner of Immanence Health in Seattle is my guest. She's a naturopath with a wealth of information to share in this area. She was my main healer during the span when I was having memory issues six years ago. What she shares here is the protocol that she used with me. This isn't taking one pill and everything's fixed. This is a multi-layered approach, a lifestyle change that really works. Today I'm so excited to welcome my doctor, one of my doctors, and also my good friend, Dr. Christine Schaffner. Dr. Schaffner, thank you for being with us today. We're going to have so much fun with this.

Dr. Christine Schaffner: Oh, we're going to have so much fun. It's just such a joy to see you having this podcast and doing this interview. I could not be more honored.

Jane: Oh, thank you dear, very much. We're going to talk about brain detoxification today, which you are so good at. You did it with me over the last seven years and it worked. [chuckles] Where do you want to start when you're thinking about brain health?

Dr. Schaffner: It's such an important topic, right, Jane? I think when we look at the landscape of today, unfortunately, there is just this rise in chronic illness in general, and also chronic neurological illness as well. My patients teach me every day and I've had to really become more innovative and solution-oriented to really, how do we understand what's going on with our neurology, our brain, and how do we really address these modern illnesses?

I think that whether you want to prevent a chronic illness, whether you want to recover from a chronic illness, this is really foundational for everyone's health today. I've become really, really passionate about this topic and my understanding continues to evolve very much. I'm happy to paint the picture of what we're up against and how to address that. I think brain detox is really important for everyone's health who's living on the planet today.

Jane: It is, because we're bombarded with all kinds of toxins. Do you want to start out talking about the lymph? Why is lymph important and how can you get that moving if you've got stagnant lymph?

Dr. Schaffner: Yes, absolutely. You've embraced this very much, Jane, in your health, in your recovery, and you're continuing to be so vital. I feel that the lymphatic system is just such an important system and is very still much overlooked. When we think about



the lymphatic system with brain health, we think about not only the body-wide network that I'm happy to walk us through, but we're also really excited to talk about the glymphatic system.

This is the lymphatic system that is in our brain. It was actually newly discovered. It's only been discovered since I think around 2015. What we know about this system is that when we sleep our brains actually shrink at bedtime. When we're in deep sleep and REM sleep, our brain shrinks to move lymph, basically bathing our neurons and then most importantly, removing waste.

We're not only removing waste like normal metabolic waste, and that's a really important part of our physiology. It's also the opportunity for our brains at night to start emptying that bucket of neurotoxins that get into our brain over time and that can be related to heavy metals. We know aluminum is a huge insult to the brain. It's also thinking about other persistent, organic pollutants and other environmental toxicants.

Then there's a whole aspect of what we call biotoxins. Biotoxins are related to pathogenic microbes that are actually part of their normal metabolic functioning so that they can produce biotoxins for all sorts of reasons. Those can overwhelm our system and especially our brain. The glymphatic system is really important for us to optimize, for us to have an understanding of. Also feel really empowered because it's like our brains naturally want to get rid of the junk. It's up to us to optimize the conditions so that lymph can really move out of the brain and we can have healthy brains.

Jane: When we're thinking about the lymph and the flow, there are some things that can block it. I remember with me, you said, no, your tonsils, you've had so much tonsillitis and strep throat and stuff that they were not functioning as the garbage can of the brain. That's one of the things you need to optimize, right?

Dr. Schaffner: Yes, absolutely. The tonsils are really, really important for overall immunity and overall health, but they're really important lymphatic tissue. If your tonsils have been chronically inflamed, infected, if you've had chronic dental issues that drain into the lymph in the back of a throat, which is where that whole ring of lymphatic tissue is, if you've had chronic sinus issues, this tissue, which when we think about the tonsils, Jane, we think about just the palatine tonsils, which are the tonsils that often get removed if you've had a tonsillectomy.

We actually have five different tissues around the ring of our oropharynx. We have the adenoids, we have the tubal tonsils, the lingual tonsils and we have that whole ring of lymphatic tissue. If that has been inflamed, overwhelmed, infected over time, that can



be like a plug in the drain. That can actually impede our lymphatic drainage out of the brain and also can affect our gut as well.

This is a really important part where we do different sprays and different gargles and different things to recover that tissue in order for the lymph to drain. We also think about opening the cervical lymph nodes in the neck to have that drainage out of the brain be nice and open so that the lymph can really flow out of the brain as well.

Jane: You had me tip my bed up a little bit by six inches, right?

Dr. Schaffner: Yes.

Jane: Because the studies you are showing also helps to promote a better lymph flow.

Dr. Schaffner: Yes, absolutely. We call it inclined sleeping. When you think about it, this fluid is moving in and out of the brain at night and we really want it to exit the brain. If you prop your bed up around five degrees, you can do that either with an incline bed frame or even putting just books underneath your bed.

Jane: Yes, that's what I do.

Dr. Schaffner: Just making that kind of slope from your head draining, that actually really helps to propel the movement of lymph out of the brain. I've seen a lot of wonderful clinical anecdotes that people feel good when they do that.

Jane: It's not that hard really. You think, "Oh, I'd slip down to the end of the bed real quickly at night," but you don't. It's not that much of an incline so you really don't notice it.

Dr. Schaffner: Right.

Jane: Are we done with lymph? You want to move on?

Dr. Schaffner: Maybe two more things around the lymph. There are a couple more things about the lymph because this is just such an important topic and you know I love talking about it. We're thinking about glymphatic drainage at night. You have to have good optimal sleep for this to be working. The lymphatic system is a highly interconnected system. If you have congestion or stagnation in one area, it can affect the other areas.

When we think about the brain, the brain isn't disconnected from the rest of our body when we think about it in the context of our whole system. When we think about having good lymphatic drainage, we want to think about making sure-- Again, I said the tonsils



and the cervical lymph nodes. Another area for women that is a window into your lymphatic system is breast health.

If you have a lot of breast swelling, breast tenderness, fibroadenomas, fibrocystic breasts, that can be a sign that there can be a lot of lymphatic stagnation in your breasts, and that can also affect lymphatic drainage downstream. Gut health, if you've had a lot of digestive issues over time, a lot of inflammation, we think about lymphatic stagnation within the intestines but also behind the intestinal wall and that can also create stagnation.

We want to get our lymph moving in all of our body in order for at night when the lymph is moving out of the drain, it has somewhere to go and it's not just maybe not optimally draining and pooling in the brain because it's stuck elsewhere. Those are just some other point areas and windows into overall lymphatic health.

Jane: That's a big project, to start to get your lymph moving when it hasn't been moving for a while. I was listening to one of your podcasts recently, which I get so much out of. Thank you for doing those, Spectrum of Health podcast. You were interviewing a person who had these different creams. You put creams on your feet and you put them even over your breast to get the aluminum out of your breast. There's a way to start moving that lymph. How do you first approach doing that?

Dr. Schaffner: Yes, thank you. That was Michael Fesler. He has a company called Orthodontics and he has some really innovative topical products. Some go-to for the lymph. The lymphatic system relies on movement. Really walking every day, getting outside, getting your system moving is a really great way to get your limbs moving. There are different tools depending on how sophisticated you want.

From a rebounder, which is like a little trampoline. There's a vibration plate. There are some tools to enhance vibration and movement to get the lymph moving. Drinking enough water and being really hydrated is also really important for the lymphatics. I also like light therapy. Getting out into the sun is really great but if you have a red light or a near-infrared light, that actually helps to improve circulation and drainage, and that can help move the lymph. There are different herbs that you can use internally. There's different creams that you can use topically. There's different enzymes that you can do to also break up congestion that's interrelated into lymphatic stagnation. Then from another bird's-eye view thinking about, okay, why do I have stagnant lymph? What are some of the things? Maybe lack of movement, lack of hydration, some basic things, but the lymphatic system is where we detoxify the body as well as where our immune system really engages in what we're exposed to and mounting the response.



This is really important. If you have a high toxic burden, that can be a root cause of why you have lymphatic stagnation. Then also if you've been dealing with chronic immune issues and having things like Lyme and co-infections or viruses or parasitic infections, mold, mycotoxins, all of that can also impact the lymphatic system. I think it's important to get the lymphatic system moving, but also think about, okay, why am I in this position to begin with? Have I really looked at underlying causes so that you can really lower your load and prevent non-exposure ongoing?

Jane: The great thing is, if you're diligent, if you're really diligent and you have the right practitioner to guide you, you can make a huge difference. You can change your trajectory with your lymph.

Dr. Schaffner: Oh, absolutely.

Jane: You definitely can.

Dr. Schaffner: Yes, and your body loves to move the lymph. When this hasn't been moving, you don't feel good, and once you get it moving people feel better. There can be that window. I don't know if you went through this Jane, but sometimes when patients are really stagnant and have a lot of issues, all of a sudden the immune system is waking up like, oh my goodness, we're moving lymph, and I have to deal with all of this.

Sometimes there can be that short term what we would call flare that your immune system is active and you might have more flu-like symptoms or you might feel crummy for the initial. Don't lose sight on how important that is, and just working with practitioner like myself or the education that Jane is sharing, doing things like binders and immune support and all of that can help minimize those reactions and move through those and then it gets easier and then your body feels good. That can just be a sign that you need it, not to back down [laughs].

Jane: Yes, good point. It's a good sign, not a bad sign.

Dr. Schaffner: Exactly.

Jane: Anything else with lymph before we move on?

Dr. Schaffner: I think we covered it. We could talk about lymph all day long, but I think we got a good overview there.

Jane: Blood flow to the brain, which is very important.

Dr. Schaffner: Definitely, really important. Blood flow is really important in our body, and just for health and longevity. We're only as healthy as we can bring nutrition and oxygen



to ourselves and remove waste. The lymphatic system is one part of that, but our circulatory system is huge in that way. When we think about the brain, we think about blood flow going into the brain, but we also think of blood flow going out of the brain. With that also being said, the lymphatics are tied to our circulatory system.

Our lymphatic system is only as healthy as we have good blood flow and circulation. In modern life, we're resilient humans and there's many ways to recover health. In modern life we're up against a lot. There's a lot of things that make our blood sticky or more of what we would call coagulable or more clamped up. It's called rouleaux, and it's from the red blood cells stacking up and then they can't move as well and bring oxygen to the tissues. I interviewed some people who are doing studies that show that EMF actually can make our blood more sticky and stagnant. My friend Dr. [unintelligible 00:13:49].

Jane: Oh, great.

Dr. Schaffner: She put a Wi-Fi router in front of a sample and then some subjects, and then measured their blood and looked at it under a dark field and found that it was within 10 minutes of being within proximity of a Wi-Fi router about six feet. That increased rouleaux in the blood. When you think about it, technology makes our life highly interconnected. We get to learn so much, there's a lot of value, but there is a cost about how EMF affects us in many different ways.

I recently talked to her a few weeks ago, and so that just really hit it home. Then when we think about in this time of COVID, COVID is a vascular inflammatory virus, and so a lot of the secondary effects and a lot of the consequences of COVID can be vascular inflammation and blood coagulation and clotting. When we think about optimizing our health, doing whatever we can do to keep the blood a good consistency, and that can be enzymes, hydration, and grounding.

Grounding, just getting out into the earth and putting your bare feet on the ground if you're able to do that. You absorb electrons from mother earth, and that actually helps to do a lot of things. It helps with inflammation but it's really helpful for circulation and blood coagulation. Coming back to the brain, we think about evaluating the arteries of blood going into the brain. That can be looking through ultrasound. You can actually look at the carotid arteries and see if there's any plaque or any stagnation or impediment on getting blood into the brain.

Then in our patient population, what we found over the years is that the veins exiting the brain called the jugular veins, for different reasons can be what we call stenotic, narrowed, or malformed. What that means is that blood has a hard time traveling out of the brain and when that happens--



Jane: Really?

Dr. Schaffner: Yes, and when that happens, blood, when you think about it again, it's all interconnected. If you have narrowed hoses here, then what can happen is that the blood pools in areas in the brain. What they found, some scientists and doctors looked at models of MS when this was first studied. Multiple sclerosis, which is a neurological illness where there's demyelination in the brain, and what they found was that around the venue walls, around the opening of the veins, that's where the white matter lesions could be.

That's where the damage was, and so that was where the blood wasn't draining and there could be iron deposits and inflammation. It's really not a small thing. It's really important that we have really good blood flow into the brain for oxygen, nutrition, all that good stuff, and blood flow out of the brain so then we don't have this pooling or stagnation. Then the lymph travels along the veins. If your veins are in this position then the lymph for the glymphatic drainage doesn't happen as well. There's all sorts of things to think about for that, but that's setting the stage for looking at blood flow in and out of the brain.

Jane: All of this points to the fact that my community with this podcast we're into preventing cognitive decline, preventing Alzheimer's. The interventions you're talking about mean that if someone is just experiencing some form of forgetfulness that they can tell is a little bit more than they should be, maybe apparent to their friends and family, that these interventions are something they need to hop on them right now before the cognitive decline starts to escalate.

Dr. Schaffner: Yes, absolutely. I feel that it's always easier to prevent than reverse. Not that reversal isn't possible at any stage, but prevention is definitely going to be way easier than reversing a cognitive impairment. That's definitely what we're thinking. Then I'm happy to share some tools for prevention if this is starting to happen. Some things to optimize. One thing is if you want to just take stock, especially if you have cardiovascular history, any adverse events in your family history, consider getting an ultrasound in your arteries and just seeing what they look like, and that can give you a window.

I'm a big proponent of structural work. A lot of how our neck and our cervical spine is aligned actually has an optimal effect on the front of our neck and all of this activity of arteries and veins and all of that. If there's any possible issue there, one way to help mitigate and override is just making sure we have really good alignment because that can really optimize as much as possible if we have good [crosstalk] flow. Yes, exactly.



That's important. Then one of the other things to think about too is when we look at blood flow in and out of the brain we also look at the whole cranium.

Not only the neck, but we look at the optimal movement of our cranial bones because that also has a positive effect of blood flow in and out of the brain. One stress that can affect a couple different buckets that we talk about with brain health is our dental piece. The dental piece is a huge component in our overall health and our neurological health, but that can also stress out our blood flow in and out of the brain if we have a lot of dental interference fields that I'm happy to talk about as well.

Jane: You got three hours, we can be here all day. You have so much to share. [laughs]

Dr. Schaffner: Yes, I know. I hope I'm not overwhelming everyone, but I'm coming from a place of wanting to share this so you feel empowered. There's more and more awareness around a lot of the topics I've shared, but it's still a small part of what is in people's consensus, understanding of how to take care of themselves and prevent especially cognitive decline.

Jane: Well, let's jump into the dental component. We've talked about sleep apnea. We had an expert on sleep apnea in. That was fun, but we haven't talked about root canals and things that can really impact that flow then to the brain. Mercury in the mouth, which we haven't gotten into heavy metals yet really. Do you want to talk about the mouth?

Dr. Schaffner: Yes, let's do it. I think the mouth is still a really important part of our overall health and unfortunately, a lot of chronic illnesses start in the mouth. When we think about your dental health, you want to take an inventory and you want to think, okay, do I currently or have I ever had an amalgam filling. An amalgam filling is a silver filling. One of the metals in the amalgam filling is mercury, which is one of the most neurotoxic substances on the planet.

For whatever reason we decided to put that in our mouth close to our cranial nerves and in our brain. That mercury vapor over time can get deposited into the nerves that basically transport it through the nerve roots and into the cranial nerves that they can get into the brain. This can be a source of neurotoxicity. We always recommend, one of the first things I do with people is to get their amalgams out.

We want to do that safely with a biological dentist and plus with a really good either functional medicine doctor or naturopathic doctor, because you want to do that in synergy so that you can really be ready for it and supported and have a really positive dental experience. Just a caveat too, some people think, "I got my amalgams out. I'm



good". That's just when it all begins. That's step one. When you've had amalgam fillings for a decade, it's going to take some time to get that mercury out of your body.

Jane: You've got to detox.

Dr. Schaffner: Yes. As you know, a detox is a marathon, not a sprint. It does not happen overnight nor do we want it to, cause that would just be really alarming for the body. It's a process and a lifestyle. Amalgam fillings, and then root canals. Root canals unfortunately are dead teeth. They are teeth that have died and then dentists take out the nerve and clean out the tooth and then stuff it with often non-biocompatible material and other materials that can be toxic over time.

Why root canals can be so detrimental to people's health is that over time, what they found is that teeth aren't sterile. That it can actually become a home base for different microbes that are often quite pathogenic. Different bacteria, different viruses. They've even found molds in the root canal teeth, even parasitic infections in the root canal teeth. This can be a hidden source of chronic infection and because the tooth is so intimately related to the circulatory system that has a lot of access to our systemic circulation, those microbes can just enter the bloodstream. Not only in the blood, but also get into the lymph and into the nerves. That can be this slow, insidious poisoning of the body over time.

We have people get their root canals removed, which is always I know not the most fun, but it's so health promoting. We have people get their root canal out, that the biological dentist really cleans that area out with ozone and makes sure that it heals really nicely. We often use zirconia implants, which are the most biocompatible that we have at this time, to put a tooth in that area so that the bite is optimal. They have linked, there are different microbes in the oral microbiome that they've linked to dementia and Alzheimer's. We know that the oral microbiome is really, really important for our brain health, so root canals are important to address.

A couple more things, but the other thing to think about is if you have your wisdom teeth out and the wisdom tooth area doesn't heal properly, what can happen is a cavitation can form. In that cavitation there can be dead or necrotic bone. It's like a pocket, a hole in the bone that never really fills in with bone. It's this mushy, oily necrotic bone that has that same effect that the root canal has. That it can be a home base for microbes, and then that can constantly poison the lymphatics and the circulatory system and affect the vagus nerve. That again is not a small thing. It can be a big thing, and each tooth gene sits on an acupuncture meridian.

Not only do we have these physical effects that we just went over, but there can be these energetic meridian connections. Let's say you have a system that is chronically



stressed. Let's say you have a root canal in the front, that's kidney, bladder meridian. If you have these chronic urinary tract infections, it's not so much causative while it could be. There could be microbes that travel and affect the urinary bladder from the tooth, but it is almost this boulder in the middle of the road. That until that root canal is not stressing that meridian system, that organ system can become chronically stressed.

We see all of these interrelationships between what's going on in our mouth and what's going on with the rest of our body. Of course our brain, because of just proximity alone, that there's a lot of routes that these microbes can get into our brain if they're in our mouth.

Jane: Speaking of mercury that's in the amalgams, that's one of the heavy metals that you're concerned about, but there's also aluminum.

Dr. Schaffner: Yes.

Jane: We're seeing it's horrible today, the autistic children with more aluminum in their brains. People with Alzheimer's with more aluminum than they should have in their brains. Should we segue into toxic metals like that, heavy metals?

Dr. Schaffner: Yes, good student. As you mentioned, we talked about mercury. Mercury is still not only in our mouth, but it's in our air, coal burning power plants emit mercury, it's in our fish, it's in our food supply. Mercury is a neurotoxin that once it gets into the brain, we can get it out, but it does take time. Mercury can settle into astrocytes, which are part of the garbage men in the brain that help to clean up our brain. When you get mercury accumulation within a neuron, that can affect communication and function of that cell. Then housekeeping of our brain is compromised. Mercury can also affect other neurons in that it can affect essentially cellular communication.

Whenever you get a toxic metal in a nerve and they're hard to get out and then it just short circuits the whole communication network, if you think about it. A lot of when we see cognitive decline, it's because of those loosening of connections and neuronal cell death and those more spaces in between the synapses of the cell. Then you're getting this lack of connection and that turns into lack of function and all of the things that we see. Mercury is one, and then aluminum does more or less the same thing, but has a couple different mechanisms.

Aluminum is everywhere. Aluminum can be in the way that we get our water cleaned in the municipalities. Aluminum sulfate can be added to the water, and then if you're not filtering your water, you can be drinking it. It can be in our foods, it can be in our



medicines, in our vaccines. It can be in our personal care products, it can be in our environment. We're really inundated with aluminum as well.

Aluminum has a charge that makes it really, once it gets in certain tissues, it's hard to break free and get apart. It can affect the blood vessels in the brain. It can create inflammation. We call it, it creates neurovascular inflammation. It can also affect what we call the microglia, which are really important neurons in immune cells in the brain. When they are overactive, they create this perpetual inflammatory process and then neuroinflammation translates into symptoms. Aluminum can be a trigger for that.

There's lots of other mechanisms that aluminum affects the body, but I feel like mercury, aluminum, also lead. We forget about lead, but lead is still very much part of our environmental burden. If you've had an exposure to, especially as a woman early in life, we can store lead in our bones. Then when we go through menopause and our estrogen levels drop, we can actually have what we call reverse toxicity, where we're leaching lead from our bones.

I've seen this a lot, that women will have more neurological symptoms sometimes during menopause. It's basically, they're getting affected by their past lead store that's being released from their bones. Often you have to, of course, support bone health and we often support hormonal levels, but also help people really curate that lead out of the body. Lead is very detrimental to our brains. Even conventional medicines test little babies for lead in early years, because we know that lead can be very damaging to our neurology and our IQ. They look at that, which I think is wonderful. One aspect for them, we're forgetting [chuckles] all these other exposures for the young kids. Those are the big three. There's other metals of course as well.

Jane: I know you know my mother, and she has now moved into memory care. I feel that as her bones have broken down with osteoporosis, that they have released this-She's at the age that lead paint was all around her. My gut feeling is that lead has played a real role in her cognitive decline as she ages and her bones--

Dr. Schaffner: Yes, I'm sure you're absolutely right. Again, where we sit today is you're trying to avoid exposure, but lead is still in older houses and paint. It's my understanding, I haven't looked at it in the last year, but I'm fairly certain that still the airline industry is a leaded fuel. Even though we've gotten it out of our cars and our gasoline, airplanes, whether you're flying or just in the atmosphere, that lead is still something that we need to be concerned about. We even saw in Flint, Michigan the lead toxicity for the children.

I interviewed Stephanie Seneff. She really shared it was like that perfect storm, that there was lead in the pipes from just old past piping. Flint, Michigan, is one of the



highest sugar beet communities. There's a lot of glyphosate in the agricultural community that gets into the water. Then you're getting the glyphosate in the pipes that's curating the lead. It's stripping more lead out of the pipes and making it more available in the water. We often say the perfect storm, right Jane? If it was just lead, if it was just mercury-

Jane: We could handle that.

Dr. Schaffner: -but it's all of these things and that's why we see what we're seeing.

Jane: Glyphosate in the brain?

Dr. Schaffner: Yes.

Jane: How do we try to avoid it? We eat clean, we eat organic. Are there any other ways, and how do you detox it and what does glyphosate do in your brain?

Dr. Schaffner: Yes, glyphosate is the active ingredient in round herbs. It is, unfortunately, widely available in the environment. It affects us as humans. I'm an optimist, but I just want us to know again, we all need to take this seriously because even if you eat organic, you're still being exposed.

Jane: It's still there.

Dr. Schaffner: It's still there, so just eat organic please and please feel empowered by that, but just also know that we're just up against a lot of environmental exposures to glyphosate. Glyphosate effects, it's really insidious, because it affects so many systems in the body. When we just look at the lens of the brain, obviously, we have the gut-brain connection. Glyphosate interacts with what we call the shikimate pathway in our gut microbiome. It actually creates deficiencies in what we call an aromatic amino acid, like serotonin and tyrosine and things like that.

If you have thyroid issues, that can be affected. If you have depression, if you have sleep issues, because serotonin gets produced into melatonin. It's on that gut microbiome level, affecting our production of important amino acids that are in the body--sorry, our neurotransmitters. Also creates leakiness and permeability not only in the gut, but also in the brain. It creates leaky barriers, so making these areas of the body that should be more Integris and prevent entry into different body compartments, we're losing that membrane stability with having glyphosate in our body.

Then Dr. Seneff, who I mentioned, who's educated us a lot, she has this wonderful paper that really talks about how glyphosate-- it's a story that I'm happy to dive into more, but the cliff notes is that glyphosate creates an opening in the gut that makes us



more permeable to aluminum. Then the combination of glyphosate and aluminum and how they're carried in the blood together make its way to the pineal gland and then can affect our pineal gland.

The pineal gland can be affected by glyphosate and then that can affect melatonin production over time. That's really important for our circadian rhythm, for our lymphatic system. Exactly, it's like neuroprotective, it's detoxing. When we think about brain health, the pineal gland is really important. Our pineal gland is affected by what I just said, glyphosate, aluminum, but also fluoride, which is in the water, also EMF. It can recover, it can heal, it can improve functioning, but I do dental X-rays on my patients, and I have a local dentist who will call out that she sees the calcified pineal gland in many of our patients. We can see that on a cone beam.

Jane: On an x-ray?

Dr. Schaffner: Yes, a cone beam [crosstalk], exactly. Then not to sound esoteric, but we have the pineal gland, of course, is great for circadian rhythm, melatonin, but there's this whole consciousness story around the pineal gland. A lot of cultures have studied it and looked at it, and I'm down the Dr. Joe dispenser rabbit hole these days, and we call the pineal gland neuro endocrine transducers.

It's basically taking my information and energy and helping us to turn that into different neurotransmitters. Not only for sleep, but also in our meditation processes and our ability to connect to something outside of ourselves. Of course, we want to keep that connection open in life and so when we think about how this is affecting us from all these different angles, I think it's really important, and we need to increase awareness around this.

Jane: I need to let you go. Before we wrap up, thank you. Is there anything else you want to add?

Dr. Schaffner: Yes. I know I sound like a bummer right now, right? I'm just telling people all the things-

Jane: I don't think so.

Dr. Schaffner: -that go wrong, but I'm really sharing about this as a women empowerment place. I know Jane has a lot of wealth of resources and information, still okay. This is what we're up against. This is how we move forward and how we can recover. The brain can heal, the body can heal, of course, but I want you to know that



the brain-- We can make new neurons, we can make new connections, we have this whole opportunity to rewire and create a new story.

Just because we might have a lot that we're up against doesn't mean that that can limit us or prevent our ability to actually improve our brain as we age. That's definitely the message that I want to share and I feel that-- I guess one last thing that's on my heart to share, Jane, is that as I've been studying the brain more and more, I do all these summits and I'm so blessed to learn from so many people. What I have really learned about is the heart.

We have this beautiful heart that helps our blood and keeps us connected obviously to the rhythm of life. We have the ability to connect with our heart. The more that we connect with that energy of our heart, we strengthen what we call that electromagnetic signal that basically, our heart produces. That's when we're in these states of gratitude and love and all the feel-good stuff.

The heart, because it has the strongest electromagnetic field in the body, actually informs the brain. If we want a healthy brain and we want to have coherent brainwaves, we have to connect to our heart. I think that the more I sit with that and I think about all these neurological illnesses, we have to bring it back to our hearts. I think we all have access to tuning them each day, whether we choose to or not, and connect with what's going well. Who do we love, what are we grateful for, and that sounds so Pollyanna, but actually our physiology is wired to respond in a positive way when we make time for those states of consciousness.

Jane: I am so glad you ended with that. Thank you. Dr. Schaffner, thank you for your time. I think the world of you and I really appreciate this time together.

Dr. Schaffner: I enjoyed it so much. I know that we'll have many more conversations and I'm just thrilled that you're doing this podcast. Thank you so much for inviting me.

Jane: Thank you.

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