Introduction and Dr. Wahlsu2019 Story

Hello. Hello. Welcome back to Mastering Your Menopause Transition Summit 2.0. I am your host, Dr. Sharon Stills. I am thrilled, as always, to be here with you all and bring you all this fascinating, pertinent, important information that's going to help you on your journey.

And today, we are going to be talking with the one and only Dr. Terry Wahls, who I'm suremany of you already know who she is, that she is the the queen of MS.

and has her own amazing personal story that she's going to share with us. And, you know, I just felt like it was so important to bring her on and have her be a part of this, because autoimmune disease is on a rampage and we see it much more in women.

And we see M. S. with declining estrogen levels. We see a lot of diagnoses and we conceive and sometimes overlapping of symptoms. And so I really wanted you to not only be inspired and learn, but just to have this in your in your toolbox so that you can always return and listen to this talk again if you're ever confused or think something's going on.

So we're going to we're going to learn a lot today about a very important topic. So welcome. It's great to have you here. Thank you for having me. My my pleasure. My pleasure.

So, I mean, I have to just start I ask everyone to share their story, but someone who has a story as profound and moving as yours, if you would share.

You know, so in retrospect, you know, symptoms began during medical school, 1981. I'm just my early twenties and I ignore them. And it's not until really 27 years later when I develop weakness in my left leg as I walk when I'm 45 that I see a neurologist and he says me, this could be bad or really, really bad.

And so so I'm going through the workup. I think about the 27 years of worsening intellectual based pain that I've had. And, you know, that's very scary.

So I'm praying for a fatal diagnosis because I've already figured out, okay, you've got a progressive problem. This is going to be in the really bad. And I am a physician.

I do my research, see the very best ever centers. I take the newest drugs and three years later I'm in a totally fine wheelchair. So I'm 48. That's why I go back doing the basic science.

And I developed the theory that mitochondria drive disability. I create a supplement cocktail that supports my mitochondria, it slows my decline. I'm very grateful.

My little face paints turn on your tears stream down my face as my ten year old daughter hugs me, I discover a study using electro stimulation muscles.

I ask my physical therapist, Can I try that? He calls it E stem. He says it's for athletes because it says it's also, by the way, quite painful. He knows I have a lot of muscle pain.

Gives me a test session. It does hurt a lot, but I feel really good afterwards, he says. That's from the endorphins and I begin doing Eastham and I have a and I'm so weak I cannot sit up in a regular churning.

I'm in a zero gravity with my knees higher than my nose and my feet. My fatigue is very severe. My electrical face pain are more and more severe and begin to have brain fog.

And my boss tells me he's going to sign me to the Traumatic Brain Injury Clinic. Come January. Describes the job and I'll have to see patients without residents.

And it's a job that physically I can't do. So I'm really quite bummed by all of this. I'm doing my. Eastham I discover the Institute for Functional Medicine.

I take the course on neuroprotection. I have a longer list of supplements. Mm hmm. And then I'm taking them, and then I have this really big. Aha. And Sharon, I'm so embarrassed now in retrospect, like how long it took me to have this. Aha.

Like, what if I redesign my paleo diet that I've been following for five years because I'd been a vegetarian for 20 years before that very low fat and I do more research figure out how to get these nutrients that I've been taking in some form in the food supply.

So now I have a very, very structured paleo diet. You know, I start this new way of eating December 26. And as I said, you know, I can sit up no more than 10 minutes, which, by the way, meets the definition of being bedridden for I can take just a few steps using two walking sticks.

Otherwise I'm either in bed or the zero gravity chair. And the reason my chief of staff assigned me to the Traumatic Brain Injury Clinic was he was forcing my hand probably because it was time, because of the brain fog, to admit that I needed to apply for medical disability.

So I start this new way of eating. At the end of December, I go off to the Traumatic Brain Injury Clinic the first two weeks.

Recovery Through Diet and Exercise

I am just watching my partners, my new partners from my zero gravity chair the third week of January, which is really the beginning of the fourth week of my very structured paleo diet.

Now I have to get up out of my wheelchair, do the exam, sit down, write my notes, do an exam, sit down and write my notes. And the other day when I come home, Jacqui asks me how it went.

And I'm like, Well, you know, that it wasn't too bad. And at the end of the week she goes, Well, hon, how was it? And I'm like, You know, that wasn't too bad.

And at the end of the month, I said, you know, how could we bring a regular chair in? I want to, because I've been eating from a zero gravity chair, lean back, probably making my family very nervous.

That's going to choke as I ate. So I sat up with my family for supper and that was a big deal. And then my physical therapist, you know, Terry, you're stronger.

I'm good to advance your exercises. So I've been doing just 10 minutes of exercise. If I did more than that, I just couldn't function. So as me doing 10 minutes twice a day, 15, twice a day, you know that twice a day and half an hour.

Twice a day. And I beginning to walk in the hospital using my two walking sticks in the hallway, and people are like, Oh, my God, are you on some new drug?

No, no, no, no. I'm and I show them my Eastham device, and then I begin walking with one walking sticks, and then I begin walking with no walking sticks and I'm walking around the block.

So it's still short distances. But, you know, from being unable to sit up to walking around the block, not quite half a mile, that's that's a pretty big deal.

And I tell Jackie, you know, honey, I'd like to try riding my bike because we used to really be into bike riding. And she says, Well, you know, honey, if things keep going well, maybe in the fall, well, two weeks later, it's Mother's Day.

And by the way, I decided I want to try riding my bike. And we we have an emergency family meeting. Jackie tells my six foot 516 year old son Zach. So, like you are alongside on the left, she tells my 13 year old daughter Zippy, you run alongside on the right and she'll follow and I get on my bike and I bike around the block.

You know, that big 16 year old boy, he's crying, that 13 year old girl, she's crying, Jackie's crying. And as you can tell, as I tell the story, I cry again because it was at that moment that I understood the current understanding of progressive multiple sclerosis is incomplete.

Who knows how much recovery might be possible and so every day I bike a little more. And in October, Jackie says, Hey, let's sign you up for the courage ride.

It's 18.5 miles. And when I cross the finish line again, we're all crying. You know, my kids are crying, Jackie's crying, I'm crying. And this fundamentally changes the way I think about disease and health.

It will change the way I practice medicine, and it will change the focus of the research that I do. And I have to go and get some tissues because my nose is running well, I can't tell that story without cry.

Yeah, it's it's powerful. And it just makes you realize how much we take for granted. Even as you're talking about just being able to sit up with your family to eat.

A lot of things we take for granted that are such huge leaps when you're dealing with this huge. Because when you cannot sit up in a regular chair more than 10 minutes, you can't go to movies, you can't go out to eat driving up to Wisconsin to see family meant that we fully recline my chair.

We had straps that that strapped me in. And, you know, your your world becomes smaller and smaller and smaller. So how how long ago was that when you did the bike ride?

2008. So 15 years. Ago. 15 years, you know, and now I jog in my neighborhood where I can jog around the block. You know, it's not far, you know, I, I jog a mile, mile and a half pretty comfortably.

I, if I and of course I'm tempted to try going farther, but I, I try to make sure I don't go too far, that my form declines because I don't want to stumble and fall.

So do you do you credit the diet as being the main thing that turned it around for you? You know, so I did the Paleo diet for five years and I still declined.

It took supplements for four years. Yeah, I was tinkering. I was still declining and a d stem that stabilized things when I redesigned my paleo diet in a very specific way.

Man, that's when the magic happened. You know, things just became very remarkable and then I, my physical therapist, gave me permission to increase my stem.

And, you know, I'm sure the intensity of working with a person who treated me like an athlete, I was why I was able to make the rapid recovery that I did.

And certainly, you know, if I came to your home, Sharon, and you accidentally gave me gluten, dairy or eggs in 6 to 24 hours, my face pain would turn on.

And, you know, I'd have a truly incapacitating, horrific level of pain. Mm hmm.

Menopause, Autoimmunity, and MS Progression

That's that's pretty powerful. And shows how our food truly is our our medicine. And so you have the walls protocol. Correct? So in before we get into that, I do want to because this is a menopause thing.

I want to talk a little bit about menopause in mice and systemic autoimmune conditions, because when we're young, you know, in our twenties, you have relapses or you have exacerbations of your autoimmune disease, whether it's rheumatoid arthritis, inflammatory bowel disease, psoriasis or whatever systemic autoimmune thing you've got.

But beginning around age 40 to 45, there's far fewer relapses. We have immune senescence, so our immune cells are getting old and we transition in the EMS world to what's called the progressive phase of the illness.

I was diagnosed at age 45 in age 48, and sometime it's between age 45 and 50 that people are really in the progressive phase of their illness. So at the time that I was diagnosed, I was transitioning to the progressive phase, and this is the phase where some women would never really get diagnosed with relapses.

We may just see this slow worsening of pain, worsening of our fatigue, anxiety, depression. And when we have difficulty walking because we're stumbling, we're tripping, ripping our pants too much, pooping our pants too much, we end up see our gynecologist, our primary care doctor, who may be census to neurologist who gets the MRI, the spinal tap and says, you have M. S.

or you have the most lookalikes, which are all these other neuro immune conditions. And, you know, I think it's the absence of the sex hormones that really has this major impact on our immune system that accelerates if you have M. S.

or a new immune condition, accelerates the disability, accelerates the damage that leads to our going in to see our physicians. Absolutely. Absolutely.

That's why I always teach that hormone replacement is not just to get rid of hot flashes, but it's really to protect the immune system and the gut and the brain in the bone.

You know, it's really for prevention of chronic. It's correct. Correct. And I think we underestimate the impact of that menopausal transition for people with an autoimmune disease.

Mm yes. So very, very important stuff we're talking about right now, whether you've been diagnosed or you have suspicions that something's going on or you're on the lookout because you have a family history, it's just really something I want.

Like everyone who's listening, I want this in your in your attention span and in the realm of things to be thinking about. Because we don't often think about this. Yes.

Yes, absolutely. So. So tell us about I mean, tell us about the research. Tell us about the protocol. Tell us about the die. Yeah. So, so so what is this magical diet?

So we'll talk about the things you ate. Because in my in my I think my microphone. Sounds like it unplugged. I think it's back now. Okay. So the issue with diet is it's always easier.

It is always much easier to have our diet be at stuff. If you add in in the last protocol, more green, leafy vegetables, kale, collards, spinach, Swiss chard, cilantro, parsley, mustard, greens, etc.

Then the next category are the cabbage, onion, mushroom, family, vegetables. I call that the sulfur rich family. And then the next category category is the deeply pigmented, the beets, carrots, berries.

And a good way of thinking about that is when you look at the color is the color going all the way through the food item? So an apple red on the outside, white on the inside.

I call that a starchy vegetable, quite delicious. But it's not going to have all the polyphenols that I'm looking for cranberries, blueberries, peaches, apricots.

They're pigmented all the way through. Did meet that criteria.

The Wahls Protocol Diet Basics

And then I want to be sure that you have plenty of protein and while I think people know that I'm very, very fond of the Paleo diet in my preferences, that people eat meat because that's a complete source of protein.

I recognize that some people are vegetarian or vegan for their spiritual beliefs. And if that's the case, I don't want to dishonor your spiritual practices.

And so then it's going to be a gluten free grain in whole legumes. I we want to have plenty of omega three fats because omega three fats are important in the cell membranes important.

And so in the myelin, important in the signaling molecules that are helping to calm and resolve our inflammation. There's a big category called solvents that are made out of the omega three fats and there's resolve, protections, medicines, etc..

We also do need some omega six fats. The that they're also part of the cell membrane. So nuts and seeds will be helpful for that. And then I'm very fond of organ meats.

Our ancestors would have never have wasted the animals they ate nose to tail in about a third of the animal carcass would be what we now call call organ meats end by having bone broth, you have a more balanced source of your proteins.

There's less overactivation of the mtor pathways. Bone broth also is really healing for the gut lining. Are you looking for a certain amount of protein, like 30 grams per meal or total?

So I think an easy way to think about that because I try to keep things as practical for my folks as you. You want to have 6 to 12 ounces of meat per day.

So it really simple way to think about that is your palm two palm sized servings of meat each day. Excuse me. And are you making sure that that meat is organic respect?

And so I want people to do what is the highest quality food that they in their family can afford. So if you can do grass fed grass finished organic regenerative farming to grow it yourself, that's perfect.

However, just be sure that you're getting fruits and vegetables and plenty of protein in the people that I took care of in the VA, they were living on food stamps, shopping in rural grocery stores, and they were organic and they still had really remarkable, remarkable results.

So and then so we talked about adding in all these leafy greens and the polyphenol rich veggies and the protein and healthy fats, the omegas. What about taking out?

Oh, okay. So you get out of the good stuff. Now I have to take out the stuff that is wrecking your health. So sugar, all this added sugar, are these sugar sweetened beverages really terrible for you?

Get that, get that out. Processed foods, ultra processed foods. And by that I mean flour based products used to make breads, pastas, cereals that those are harmful.

So reduce that and then some categories gluten that's the wheat, rye, barley and many ancient grains that can cause an abnormal immune response in many people have an autoimmune disease casein, which the protein in dairy likewise can cause abnormal immune response, particularly if you're gluten sensitive and while mammals

have been growing our young with milk for 200 million years, it's very effective for growing infant as toddlers, young people.

But once your bones fuze all those growth factors will either make you grow horizontally, make you fat, not so good for you, or make you grow cancer in pre-cancer cells.

Also not so good for you. So I'm you know, I think dairy is a problem once you once your bones are fuzed. Well, how do you feel about butter? Well, butter still has a lot of casein in it.

So if you're going to have butter, I'd rather you have clarified butter or ghee, because you're still you can get the fat with a much smaller load of casein.

So yeah, I can tolerate some ghee. If I have a little bit of ghee, it's okay if I have a lot of it isn't going to be a problem. And what about as you're drinking hydration, how important is it surgery or drinking?

Do you want to be sure that you you are penalized throughout the day? And what gets to be a little tricky is so how much do I need to drink? It depends on how much I'm sweating, what the weather is, how dry the environment is.

So rather than giving people a prescribed volume of fluid, I tell them that I want you to be having dilute urine and that you're drinking perfectly some throughout the day.

Okay. Okay. And so the so so there's the diet, which makes a time span. And I've not mentioned the fermented foods I'm very fond of, including fermented cabbages, the sauerkraut, the kimchi, and also like to have fermented nut milks or coconut milk, yogurts and keepers.

Those are super helpful. And I also will make natto, which is a fermented black bean or fermented soybean as well, because that's a really great source of a sperm, adding compounds and stimulates autophagy.

What about caffeine for the the coffee lovers? You know, so there's a really lovely measure, the dietary inflammation index, and they look at vitamins, minerals, spices is polyphenols, alcohol, green tea, black tea, caffeine.

They do not look specifically at coffee, but but the bottom line is moderate caffeine, I think is perfectly fine. If you're a coffee drinker, that's fine.

The question I ask my patients is, can you sleep at night? I do have any difficulty finding sleep gives difficulty waking up too early or waking up and having a hard time flight to sleep.

If you have a sleep problem, you're going to have to back off in your caffeine intake.

Fasting, Supplements, and Sunlight

So maybe less tea, less coffee, stop it early in the day, or perhaps none at all. I tried drinking coffee early in my life and I enjoyed the taste of coffee but rocked by sleep. So know I could have a little bit of tea.

I have to have it early in the day. Then I have to switch to a caffeine pretty afternoon and evening. What about feeding windows? Is the diet just free for all or do you like a feeding window?

So our ancestors for millions of years had to work really hard to get our food and we would also spend a lot of time without food. The availability of continuous feeding, I think, is very, very problematic.

It really creates problem with our glucose metabolism, our cholesterol metabolism. So my preference is to get rid of the snacks, eat three meals if you only have three meals.

And then when you get comfortable, have two meals and then really get comfortable that you can think about

having two meals closer together. And we get comfortable with that.

You could think about one meal a day and some people in those circumstances may like to go to one meal every other day, and there are benefits for doing that.

We have a very strong biological desire to eat and to not feel hungry. And so there's always going to be a tension of how frequently I want to eat and how comfortable I'm with being hungry.

So if we can tolerate being hungry and having a longer period of not eating, that will stimulate autophagy, that will stimulate a lot of the anti-aging changes that are really great for my immune cells, that are really great for making stem cells, that are really great for keeping my brain healthy and young and young.

So I like to eat every other day. Often I will occasionally not eat for 24 or 48 hours, and I will occasionally do a intermittent calorie restriction.

So fewer calories for 5 to 7 days and then go back to my usual eating pattern. And all of those things are to stimulate my stem cells because I start to share my plans to Lab 220.

So doing research, still having postdocs, still giving inspiring lectures and having wonderful conversations with people like yourself on these summits around the world.

And who knows what we'll be talking about in another 50 years. Exactly. Well, we'll save this video. And when we meet again in 50 years, we'll kind of look.

And we'll talk about it. Yeah. So it's super fun. Yes, that would be a lot of fun. So when you are only eating one meal every other day on the days that you're not eating, are you just focusing on staying hydrated with pure water? So I have a lot of water out of green tea.

You know, I'll still be doing my workout, so I'll be taking a cold shower, a sauna. I may be having my Phosphatidylcholine smoothie, which is a high fat omega three and a six pack, and then I'll add some inulin to that as well.

I may add a scoop of bone broth powder to that as well. And so that would probably be about 300 calories. So a phosphatidylcholine smoothie. So the base is just water.

It's water. I'll put in some fossil for calling. I'll put in some omega threes, I'll put a little olive oil, I'll blend all of that up, I'll add some spices and I go through a variety of different spices that I'll add to it, and then I will add some fiber.

And that way I'm hanging out with my family as they're eating, because I think that's an important part of family life sharing meals and conversations together.

Yes, for sure. And you can't. Exactly. You can be fasting and still be part of the family events. And I love that. I always do. That facilitated like Patricia Cain's work, like the Ivy and with the facilitator calling.

But I never thought of doing FaceTime calling smoothies. I love it. Do it, do it as a smoothie. I think that is a it's one it's less expensive. There's less risk of harm.

It it's easier to sustain on a daily basis. So I can continue to wash my micelles with that PC smoothie. So yes. Yeah. And I'm using basically the body bio products.

I'm very, very, very happy with their fast calling. Yeah, it's a great thing to do because like, yeah, patients can come see me every day for the ivy push.

So that's a wonderful wonderful way to gets. Very very very easy with. Mm. So with the food and then the eating windows and then are there supplements that like to clean.

Yeah. So there are supplements and things that I want everyone to be aware of and be thinking about. I want you to know your vitamin D level and vitamin D plus vitamin K and your sunshine level.

We're you know, many studies have said that your vitamin D from sunshine behaves differently than vitamin D from supplements. So I think it's fine to take supplements.

I do take vitamin D supplements, but I also get myself out every day and on the weekends. So I make sure I have a great tan. So I am having the immune effect of that sunlight and I also do red light.

So I get that photo bio modulation as well. And then I, as I mentioned, omega threes, olive oil, plenty of fiber and they're verified by resources. And I will think about things like NAC and acetyl cysteine.

I think that can be super helpful. I'm wanting to know people's homocysteine level and probably also at least their B9, their folate B12 level. And depending on their nutrition exam, I will do additional vitamin and mineral levels so I can really personalize their nutrients.

I may think about things like coenzyme Q carnitine, creatine, lipoic acid and branched chain amino acids. We don't know want to hit menopause? My protein requirement goes up, my carbohydrate requirement goes down.

So I'm actually eating fewer carbs and more protein than when I was in my forties. And I stressed that to my patients, you know, particularly when you hit 60, your protein requirement is much more important and the carb requirement is much less.

Protein becomes clean. And I'm sitting here grinning because before we started our interview, I was out in my yard and I get my son and I had to set my timer.

I'm like, I don't want to miss the interview. And it's too bright out here to bring the zoom room out there. But yes, getting here when I was in medical school, you know, 25 years ago now, we had to write a it was like one of our first nutrition classes and they said, you have to write a paper on your favorite supplement.

And everyone was writing, you know, vitamin C or B-COMPLEX And I wrote my paper on the sun. The sun is really profound. There are some more studies coming out now that the high dose vitamin D supplements that that many of us are using, high dose vitamin D, you get the bottom do.

I was in the top quartile have been disappointing. Mm and you know I'm not surprised I think anytime that we do a supplement so we're going to be disappointed because life isn't a single supplement, it's always multiple compounds that interact, but vitamin D is a reflection of our sunlight as well.

And so, yes, the vitamin D supplement may be helpful, but you know, you need the sun. You know, getting a tan is what for millions of years humans did to get our vitamin D and rebalance our immune cells.

So I think getting so I love that you wrote about sun. And low vitamin D levels, which at this point, you know, I checked and have for years checked on all my patients.

And it's almost like I expect to see them. If someone comes in and they have a high one, it's almost like surprising because it's also a reflection of we're inside.

We're not in nature.

Gut Health, Toxins, and Stem Cell Research

We're not taking time to sit and enjoy the sun. If we are in the sun, we're using toxic sunscreen so we're not getting the benefits. We've we've been made afraid of, you know, what gives us life.

And so it is a huge problem, you know, and another thing that we talk about is love and social connection. We all

went through the pandemic and the isolation and the trauma to a variety of degrees.

And many of us had to relearn how to socialize and relearn those social skills, relearned, how to be connected, how to read nonverbals communication and read facial expressions, live and in-person and body language and proximity in person.

Like, you know, how close can I sit next to Sharon and she's going to be happier. At what point do I have to back off? Because I'm too much in her space and when am I too far away that she feels rejected?

Those are important things for us to understand and recognize and interact with and value with each other. Yes, for sure. Connection is connection is key.

And I want to swing back a second. You were talking about protein and how important it is, and we talk about that a lot when we're talking about menopause and aging.

And so I just want to remind everyone listening to check your hydrochloric acid levels, because you have to absorb what you're eating. And I find frequently that women menopausal, perimenopausal, even younger than that.

I find that in kids, even our hydrochloric acid levels are not what they need to be. So we're not utilizing what we're eating. And so if you're doing a really good job and you're eating like Dr.

Wiles is talking about, then you definitely want to make sure you're utilizing it. So sure. And how do you check your hydrochloric acid? Are you doing it with the functional test? You do it with blood test.

What's your so I mean, I definitely do like a batan hydrochloric acid challenge where they're taking it and we're seeing but I also look at like globulin levels and phosphorous levels and gastro levels and then I usually see like a correlating high homocysteine and like elevated and CV and M. S..

H The red blood cells are too big. So I'm also seeing like a concurrent B12 deficiency and it starts like piecing together, you know, they're not absorbing their B12, they're not absorbing their protein and kind of putting, you know, it usually starts all falling back on each other and it's like, yes, you're just not absorbing anything because you don't have hydrochloric acid.

So if we can fix that, we might not even need to supplement. And so I'm looking at all those different things I just see. So I do have a couple of quick questions before we wrap up.

So one of the things we talk about all the time and we think about with autoimmune disease is that there's a microbiome problem, there's a leaky or permeable gut.

So I'm wondering, do you find that by just following your diet that that kind of takes care of itself? Or do you have to go in and still really repair the gut?

Typically, we have to repair the gut. I love asking people, are you pooping rocks, prickly logs, smooth logs, snakes putting or tea and is it getting into your pants?

And so the ideals of is a smooth log or a snake. And if you're got rocks, you're going to need more fiber and fermented foods. If it's getting into your pants, we need less.

And then we talk about bone broth and we talk about fermented foods, severe constipation, huge problem for people with neuro immune conditions. And interestingly enough, that severe constipation often predates the diagnosis, much the same way it does for Parkinson's and it does for cognitive decline and Alzheimer's.

So that can be an indication that trouble is happening and we need to do something about that. Are you also seeing a big correlation with the history of Epstein-Barr?

Are there other things that. There are 16 different bacteria and viruses that are associated with higher rates of M. S. and autoimmunity. You know, and Sharon, there are is probably most of us have been exposed to at least one, if not multiple of these microbes.

So to me, the real question is, when we see these papers that are so excited about identifying Epstein-Barr, they overlooked the fact that the vast majority of folks who've been exposed to Epstein-Barr never got M. S.

So what were the environmental factors that allowed them to stay protected? And that's where I think all of the diet and environmental factors that you teach, I teach can be very instrumental yes, there is the genetic vulnerability.

I get exposed to probably many of these different microbes that are the problem, either manage them and clear them well. And it's not a problem. And if once we get infected, that microbe is never gone, it's always there.

It is always there. It's part of me. It's my immune cells that keep it under control and so that's where diet and lifestyle has a huge role to play, to either keep it under control or it escapes.

Exactly. What about Mercury? Do you see a huge correlation with Mercury? Oh, yeah. There's there's more evidence that people with Ms. in neuro immune issues, we are more likely to have the snips that affect how we process mercury, cadmium, arsenic lead and some of the solvents. So toxins absolutely are part of this.

What can we do to reduce our exposure? And then again, work with people like yourself and myself to help improve the efficiency that my body can process and eliminate these toxins.

Right where we're swimming, a sea of toxins. And they made the world today. And so it is about now it's about reducing exposure, but you're never going to get it totally reduced.

So it's teaching your body and supporting your body and how. To process as well as skin. Exactly. So do you expect that scientists are going to find a drug that's going to help people grow stem cells and repair the damage brain cells?

You know, we have all sorts of drugs that work really well in mice and in rats spectacularly well. And they uniformly fail. And people know that's because we get to eat what we want.

We have fights with people that annoy us. We go outside or not, we exercise or not. So it's our diet and lifestyle and what we ultimately find that there are some compounds that may be useful in conjunction with a really great functional medicine approach.

Yeah, that may be, but we already know the things that work, you know, fasting, learning, exercise, social connections, which is why I spend, you know, a week every month pretty darn hungry because I know I'm growing my stem cells and I want to have a lot of stem cells in circulation for as long as I can because I want to thrive, too.

I'm 120, so there are all sorts of things that we can do to grow our own stem cells. Will we someday find drugs that could do that? Yeah. Perhaps that'll be complicated because those same drugs would also unleash cancers that would have a hard time controlling.

So I would not be in any rush to be in any of those early trials. I would much rather grow my own stem cells through fasting. Exactly. Exactly. And I think when you fast and you, you know, there's such a emotional and spiritual perspective that happens when you're fasting and you start to sit with your hunger and realize, like, you're going to survive, it's going to be okay.

And I think that's why many of our religious traditions include fasting as part of the religious experience. That has been a consistent theme across probably all of our continents, in most of our religious practices, is to include purification practices and detoxification practices in fasting practices.

And that's a good point and very true. So too, to wrap up, like what? What is what is your search? What are you up

to now. Oh, yeah, yeah. So so anyone who's listening to this, we're always looking for new research people.

So if you go to terrywahls.com/MSstudy, you'll hear about my current study, which is efficacy of diet on quality of life, comparing keto diet Paleo Diet Usual diet will follow people for two years.

You come to Iowa, baseline month three and month 24 will measure patients outcomes, clinical outcomes and will have a brain structure outcome that will let us measure changes in brain volume one of my hypothesis is that as people improve their diet, we can get their rate of brain volume, loss back to healthy aging.

But the drugs can't do that. If we're able to show that we can do it, that would be just spectacularly amazing. Wow, that. Well, you are amazing. Your story is amazing.

The work you do is amazing. You're just a total inspiration. 360 all the way around. So say that website again for everyone. Terry Wahls that's T-E-R-R-Y Wahls terrywahls.com/MSstudy And you're on Instagram I know I'll be there always cooking all sorts of interesting stuff.

Yeah. Follow me on Instagram Dr. Terry Wahls You'll see what I'm eating, what I'm doing. Jackie does all these videos. It's lots of lots of fun. I'm on Facebook, Terry Wahls and Twitter at Terry Wahls.

But and then if you go to terrywahls.com sign up for my email, forward slash email. That way you get to have the weekly research updates where I'm giving you a few comments about a couple of the interesting research papers that talk about diet and lifestyle interventions for MS.

and other chronic health challenges. Ruth and I got to sign up for that. I don't think I'm on that list. I'm sure you'd enjoy it. Well, that's fantastic.

Well, thank you for coming here and being a part of the menopause summit and sharing your wisdom. And, you know, a lot of what you talk about, you know, the diet, even if you don't have an autoimmune disease or diagnosis, this is just good, healthy living, fasting, moving your body, being connected, being in the sun, etc., etc..

So there was lots of juicy nuggets here that can really help you during your hormonal journey. So thank you for being here and thank you to everyone for taking the time to listen.

And I know you were inspired and learned a lot today, so we'll be back with another interview. Till then, bye.