From Wheelchair to Biking: Dr. Terry Wahls' Protocol to Reclaiming Health from Autoimmune Diseases Transcript

(Transcripts are generated by AI and may contain errors)

Introduction and Speaker Background

Hello everyone. Welcome back to Reversing Hashimoto's and Thyroid Summit. I'm your show host, Doctor Anshul Gupta, world's Hashimoto's expert. And today I'm really excited about our speaker, because she is, an inspiration for me and for several functional medicine providers and, and like other people all across the world.

So I'm really excited for our discussion today. But let me introduce our speaker. And before we delve into the discussion. So Doctor Terry Wahls is an Institute for Functional Medicine certified practitioner.

And she conducts clinical research using functional medicine principles in the setting of multiple sclerosis. In 2018, she was awarded the Institute for Functional Medicine Linus Pauling Award for a contributions in research, clinical care, and patient advocacy.

Doctor Wahls has secondary progressive multiple sclerosis, which confined her to a reclined wheelchair for 40 years. Doctor Wahls restored her health using her diet and lifestyle program.

She designed specifically for her brain, and now peddles her bike to work each and every day. She is the author of the War of the Worlds Protocol how I Beat Progressive Ms.

using Paleo Principles and Functional Medicine, the Walls Protocol a radical new way to treat all chronic autoimmune conditions using paleo principles.

And the cookbook The Walls protocol cooking for Life the revolutionary modern paleo plan to treat all chronic autoimmune conditions. Learn more about her trials by going to terrywahls.com/trials, or pick up a one page head out on her website.

Doctor Wahls, welcome over here. Hey, thanks for having me. So you are again an inspiration. My functional medicine journey started after hearing your story.

If you can reverse a disease like that, then certainly like there is hope for other people to improve it. But I would like to people to hear your story one more time.

So if you can share your story of M. S. and how you overcame it. So, 25 years ago, I walk with my wife, Jackie, a half mile from home. My left leg grows weak, you know, dragging a hobble home.

And when I, next day, see that her allergist, he tells me this could be bad or really, really bad. And so I began, going through the workup. Three weeks later, I hear, the words multiple sclerosis.

I do my research. I find the best MS.. Center in the country. I, see their physicians. I take the newest drugs. Three years later, I hear tilt, recline, wheelchair because I've been getting relentlessly worse.

I'm, only 48 years old. I have, two young children. 111, another eight. That's when I go back to reading The Basic Science and I decide that mitochondria are what drives disability.

Dr. Wahls' MS Journey and Recovery

In a study in multiple sclerosis, I, work on creating a supplement CoQ10 for my mitochondria. And it slows my decline just a little bit. But, you know, I I'm super grateful.

And, I discovered studies and electrical stimulation of muscles. I, talked to my physical therapist. We add that to my physical therapy. And, then I discovered the Institute for Functional Medicine.

I take the course of neuro protection. I now have a longer list of supplements to support my mitochondria, which I'm happy to add. Then I have this big.

I laugh at myself for how long it took to have this. What if I redesign the pill? A thick diet that I've been already doing for five years, based on this long list of supplements?

And so I do more research to figure out where these nutrients are in the food supply. And I redesign my diet. I start that December 26th. Now, for your listeners, what I want you to know is, at that point, I can no longer sit up.

I was in a zero gravity chair with my knees higher than my nose. That's how I staffed the resident clinic that, I could take a couple steps using two walking sticks.

Otherwise, as in the zero gravity chairs for my meals with my family. And for staffing. I also have tried general neuralgia, intense electrical face pains that were getting more difficult, more frequent.

It was very clear to me I was on track to become bedridden by my illness because I was already very, very close, demented by my illness. Because, I mean, to now have brain fog and probably dine with intractable, horrible electrical face pain.

I so I start this new way of eating December 26th. By the middle of January. My physical therapist says, you know, Terry, I think you're getting stronger advances in exercise.

So now I'm doing my, excuse my mat. Exercise, electrical stimulation. Twice a day, ten minutes, twice a day. And I realized that my brain fog, is less.

My energy is improving by February. I'm beginning to walk with walking sticks. At the hospital, studying my colleagues. And then, on Mother's Day, I tell my family I want to try riding my bike, which I haven't done in six years.

So we have this emergency family meeting. My my, my children don't want me to do try riding because they're afraid I fall, and get hurt. But Jackie says, you know, tells my 16 year old son, who's six foot five, Zach, you alongside on the left, and my 13 year old daughters.

Abby, you're alongside in the right and she'll follow. And I get on my bike and I push off and I bike around the block. That big 16 year old boy. He's crying.

My 13 year old girl. She's crying. Jackie's crying it, you know. And when I relive that moment, even, even now, tears still come to my eyes. Because that's when I understood that the current understanding of multiple sclerosis is incomplete.

And who knows how much recovery might be possible. So, you know, every day I bike a little bit more, a little further. And then in October, Jackie comes home and says, you know, honey, I've signed this up for the courage ride is 18.5 miles.

However far you go will be great. Because the furthest had gone at that point was eight miles. But in fact, I made it 18.5 miles. Once again, you know, everybody's crying.

My kids are crying. Jackie's crying, I'm crying. And you know, this fundamentally changes how I think about disease and health. It will change the way I practice medicine, and it will ultimately change the focus of my research.

And I and I've since made it my mission to teach the public how to use these concepts, to reverse their autoimmune diseases and to, it's changed the way I practice medicine.

It at the V. A. and now, at the university. And it changes the research that I do. Because now I've been researching, and showing how to use diet and lifestyle to treat and reverse autoimmune disease.

Since 2010. Wow. That is an inspirational story. You know, like, I'm sure most people who have heard of it over here, it looks like a movie which is running, you know, in front of you because these kind of stories you just see in the movie, not in real life, but, you know, you did it, you know, all your own.

So that was magical. Yeah. You know, and, so the MS.. Conventional world really hated my story. Hated what I was doing, because they thought it was false hope.

They, denounced me and said I clearly could not have had secondary progressive MS.. Because nobody recovers from that severe disability. I am like, you know, fortunately, I had seen a specialist in Wisconsin at this new international MS..

Center and here at the university. But what I tell my critics is, okay, discount me. That's fine. Then look at my peer reviewed, published scientific studies, where a neurologist verified the MS.

diagnosis according to the McDonald's criteria, followed the clinical progress of our study participants. And we're able to show that, in fact, in people with confirmed progressive MS..

A confirmed relapsing remitting MS., that we could dramatically reduce their fatigue, improve quality of life and improve their motor function, improve, reduce their anxiety, reduce the depression, improve working memory.

Again, we've done this in study after study after study, and in the thousands of followers that we have, we have had, patient after patient report, remarkable success.

Absolutely. You know, like, I think these are similar pushbacks that, you know, I have gotten and several of my patients get these kind of pushbacks. We have Hashimoto's disease is that they have been refuted, that okay.

Well, you know, maybe your disease was not correctly diagnosed. Once they are able to get their antibodies better and quality of life improves, and then when they go back to their doctors, a lot of times they hear about it.

So I'm sure multiple sclerosis the same thing. You might be faced it or me might still be facing it. Because the conventional world is not ready to accept the fact that we are able to take care of autoimmune diseases.

You know the good news, Doctor Gupta, is that because we've been, publisher, research going to the International M. S. research means know presenting our research every year.

The I the ideas that I have are not so crazy anymore. Now, there's more recognition that diet should be, part of the, treatment and the wellness plan for everybody with multiple sclerosis.

In that nutrition matters, that sleep matters, that exercise matters, that, the microbiome is a big factor. You can think of Garry Marshall that it took him.

You went from being crazy and, you know, really condemned when he first, talked about bacteria causing, stomach ulcers and duodenal ulcers to getting the Nobel Prize, for medicine 25 years later.

And because he, created a, antibody test to, assess for his H. Pylori. He's now a multimillionaire. So the good news is, my ideas are not crazy. We'll someday get the Nobel Prize in medicine for saying diet matters in mice.

I think that will happen sometime. Will it happen? Why be one of the recipients? Who knows? But it would be pretty cool. It will be. It'll be. Well, fingers crossed. You never know.

You know we will. We are rooting for you over there. You know, if that happens, the. That is a great part, you know, and that's the best part that, you know, anybody who is like, looking for evidence, you know, I always point to words

that, you know, you have already published so many papers, you know, doing it unfortunately, in Hashimoto's disease, we have not been able to publish any papers to know, big papers to kind of prove that this protocol works.

Research, Criticism, and Autoimmune Connections

But, you know, there is a big correlation between M. S. and Hashimoto's. And we know that people who have Ms. has very high chances of getting Hashimoto's disease in their lifetime, too, because there is a connection between the thyroid and Ms.

world, too. Right? That's what you feel. Oh, you're absolutely, in what we see is, if you have multiple sclerosis every 5 to 10 years, you will have another systemic autoimmune condition develop.

And if you're in only a conventional practice, what that means is you get a second disease modifying drug treatment, added. And then a third, and as you get more DMT is added, you know, you're more likely to have, more frailty and more, adverse effects from the multiple DMT. Yes, absolutely.

You know, a lot of people don't even realize that. They feel that, you know, once they are on medications from the conventional world, like, let's say, for in Hashimoto's disease, the only treatment is illegal drugs.

And from the conventional side, they feel that is actually taking care of the disease. At least 90% of my patients, when I tell them that no this is not taking care of your disease process, that is just putting a Band-Aid or giving you external thyroid hormone.

They just look me in all like, you know, I just told them like, you know, the worst thing they have ever heard. So now people like, you know, know that this medicine, especially the lead with the toxin, is not doing anything for the disease process.

And they're looking for another autoimmune condition, like, as you said, even an Ms. whether you have the DMT, you're still looking for another autoimmune condition is very important information to people to know about and start working on it so that not only they can help to stop the progression of the disease, but also not get another disease, any other autoimmune disease in the future too, right?

Oh, absolutely. If we don't get to the root causes, these autoimmune processes will continue to develop and you'll have other tissues that will be being attacked, whether it is your joints with rheumatoid arthritis, your GI tract with inflammatory bowel disease, your skin with psoriasis, your, brain with multiple sclerosis, or one of the many neuro immune conditions that will happen every 5 to 10 years unless we begin to address these other environmental factors.

And again, in the EMS world, the, traditional, conventional folks will say, you have genetic vulnerability. 200 or 300 different genes have been identified.

Then there are microbes, and we have 16 different microbes that have been identified that increase the risk. And then the third step or these quote unknown environmental factors.

So just take DMT is in the functional space. We go, okay. So we don't know which of these environmental factors are important for you, but let's investigate them and begin to shift these environmental factors from disease promoting to health promoting.

And, you know, in my practice, I, we have a conversation. Do you want to have a great big plan that addresses all of your environmental factors, or do I need to do this, step by step, in more manageable, bite sized, changes?

Yeah. And I think the best part, which, you know, which I like about your approach, is that you are so much grounded into the lifestyle choices. You know, like the the diet and the stress and all those things, you know. Yes.

You know, I'm sure using supplements too, but I think the majority of your work, you know, that you propagate is

through these lifestyle choices, which anybody can do that.

So that's the most impressive piece over there, you know, and you know, people can can criticize functional medicine folk saying, you know, it's supplement based, it's high cost testing.

I want to remind everyone that my clinical practice was at the Iowa City Veterans Affairs where there were no, fancy functional medicine tests. There were no fancy, functional medicine, high cost supplements.

I was using basic primary care kinds of labs, you know, a CBC, lipid, glucose, maybe a homocysteine. A vitamin D, and then we used lifestyle medicine, and we had marvelous, marvelous success.

That's great to know. You know, like, because everybody, like, you know, is working with us or looking to work with us. They just put me on a supplement and we said, well, supplements are great, but that is not the way you approach it to see you have to change your lifestyle.

So I'm so glad that people now are able to hear this, that changing your lifestyle is as important or even actually more important than maybe, you know, taking certain supplements, you know, the very basic supplements that are used, in our VA health care system.

And keep in mind, the people that I saw, typically, were disabled. They had lost their jobs. Which is why they're in the VA, living in rural Iowa, shopping in the little tiny rural grocery stores, or sometimes just the convenience stores, because they're small town of Los, the grocery store.

So the basic supplements that we had a 2000 unit vitamin D, a multivitamin, multi mineral, a basic, b-complex. Now, that was it. That was all all that I could use.

And, and the basic labs were, a CBC, a liver function, AZT, electrolytes, glucose. We eventually got so we could do a hero and a c, and, we did fasting lipids, and, eventually got so I could do it.

Homocysteine, folate, and B12. And that was it. You know, those were my basic labs. And we had, a group clinic, where I would have the veteran and one family member come in.

We would, do their timeline together as a group, discuss what were the most common environmental factors that were, part of their disease process. And then as a group, talk about what were they, where they would focus, whether it was diet, improving their sleep, getting a step counter.

And we'd begin that journey and then people would come back, monthly, for a group visit. And we were remarkably successful with people coming, be able to tell, usually within two months or not, nearly always within three months that their fatigue is lessening, their energy is improving, their mental clarity is improving.

And then, I soon had to start giving reports to the, hospital administration. So the chief of the hospital, the chief of staff, the the nurse executive, in terms of.

The types of people that we were seeing, the, changes in medication because people needing fewer meds, their blood pressures were improving, their blood sugars are improving.

Their weights were improving. It eventually, the central office came to Iowa City, to see what I was doing. So, that was very, very, very gratifying.

Lifestyle and Diet Strategies for Autoimmunity

Absolutely, absolutely. So most people would be interested now to kind of talk about or know about what lifestyle changes they can do today to help improve their autoimmune processes, whether they have Hashimoto's disease or M. S..

Yeah. So, we're going to talk about the foods to add. And then separately, the foods to reduce. For most families and most individuals, additions are easier than subtractions.

So, we would talk about and this was a really wonderful exercise. We had a traveling kitchen, so we would pass around, either a dandelion leaf or a kale leaf, in with or bear off, tear off a little raw piece and, eat it.

And we would agree that it was bitter. It was terrible. And there was no way that my spouse was going to eat that. And there's no way my children could eat.

It's too bitter. Then we take chopped kale or chopped dandelion leaf. Put it the blender with some, green grapes, some olive oil, some ice, and we blend that up.

And now we have a green smoothie and we pass that around. And because of the green grapes and the olive oil, it's no longer bitter. In fact, it's really quite delicious.

And they're like, well, actually that's pretty good. And yes, I think my children could eat that. And then the next question I would have is, we'd want to know, are people okay with eating bacon?

If they were, would fry a bacon to desired doneness, take it out, chop it up. If people we had some we don't want to eat bacon, then we would use ghee.

Then we would, add the chopped kale or the chopped down green and stirred until it wilted. You know, 60 to 90s add the, chopped bacon back and we pass that around and people are like, well, actually that's delicious.

And I said, this is the basic recipe to make your vegetables, tasty because when we want low fat vegetables became bitter. So you need fat. And, you can use, ghee.

You could use, bacon. And if it's still a little bit bitter, add, the lemon juice or lime juice, and that will take away the bitterness. And then the greens, are now delicious.

And that's basic recipe. Will work for brussel sprouts, broccoli, any of your vegetables. And I explain that greens are the most nutrient dense vegetable that we can have.

That is really great for your retina, for your eyeballs, and for your brain. So I want them to start having a big green smoothie, a big green salad, a, or cooked greens, every day.

And we talk about, cabbage family, onion family, mushroom family vegetables. And we talk about, brightly colored, deeply pigmented vegetables and fruits.

So carrots, beets, berries. Then we talk about having sufficient protein, and, we have, vegetarian options for people who are vegetarian for their spiritual beliefs or, they have severe financial constraints because, lentils, and rice are less expensive than me.

Then we talk about meat and fish, in rural Iowa, there's a lot of hunting that goes on. And for much of Iowa, there are there are too many deer. And so many communities have controlled, deer hunts.

And so in the community, you likely would know hunters who have plenty of venison or the community has, a meat locker with plenty of free venison for anyone who wants it.

So our our veterans could easily get access to generally an ample amount of meat, pretty easily. So those are the things to add, the things to reduce or eliminate, added sugars, processed foods.

Explain that. White flour. Reduce removes the vitamins, the antioxidants, the polyphenols that are really, a good part of whole grains. So flour based products have synthetic vitamins and, and are really linked to more autoimmunity, more anxiety or depression, more behavioral problems that are children, more cognitive decline,

Parkinson's, Alzheimer's, and systemic autoimmune disease.

So I want people to reduce and preferably eliminate flour based breads, cereals and pastas. They could have potatoes, yams, squashes, root tubers, you know, whole grain rice, instead, and then, explain why to take gluten in dairy out.

And then the third most common, food protein are eggs. And if they're open to taking gluten, dairy and eggs out, that would be ideal. But again, the first thing is add all those greens, the cabbage, onion, mushroom family, the bright colors, and make sure you have plenty of protein.

Then we talk about, stress reduction. And we would demonstrate the four, seven, eight, breath work. And I can do that a little bit later if you'd like.

We would talk about the need to, sleep, in the target of seven to, nine hours at night. I would encourage getting a step counter or, downloading a step counting app onto their phone so we could keep track of how many steps they're walking every day.

And even just those basic lifestyle changes were really quite profound. Well that's amazing. I mean, these things are literally like, you know, things that people can do on a daily basis. You know, you're not asking much for them.

You know, very simple. Remove the bad foods, include the good foods, start doing the body movement, you know, work on your sleep. So a lot of things, you know, which we also do with our Hashimoto's clients and definitely that will work.

You know, or work with Hashimoto's clients too. So that was really amazing that, you know, with these simple things, you were able to achieve this kind of, you know, results with people.

Do you know, you know, clinical trials. And we've done, nine clinical trials already, very consistently, we see that 70% of folks will have a favorable response, to just the diet change.

So where we we have studied a low saturated fat diet, ketogenic diet, a paleo diet, a modified pet elimination diet. So all four of those diets, just changing the diet, 70% of folks are telling us that their fatigue is down.

And we have measurable improvement in quality of life. If you add in the other lifestyle factors. So stress reduction, sleep movement, you can, further increase the response rate.

So, like, you know, when you mention about the diet, all those four diets were, like, equally, beneficial or you saw one. Well, I'll tell you. So far, when you do, there's a study called the network Meta analysis.

And we did that in the spring of 2021, when we looked at all of the randomized diet controlled studies that have been done, by all the, published researchers, worldwide, we found 12 studies, eight diets.

So we can name them all, Mediterranean. Pulisic. Those say I tried fat, ketogenic, fasting, anti-inflammatory, calorie restriction and usual that for fatigue.

The paralytic that was 40% more effective than Mediterranean or low saturated fat. And then for, improving quality of life, the paralytic that was twice as effective as Mediterranean diet, the, the two genic diet, is helpful, but the 95% confidence interval, spills over into the, favoring the control, the felt, fasting is somewhat helpful.

But again, the 95% interval, spills over to favoring the control and calorie restriction. It is probably not surprising. That is really helpful for, anti-aging longevity and all sorts of studies.

But, people have less energy, markedly reduced the quality of life. And so that's, that is much, much worse than, controls. So that is good. I mean, you know, like majority of the diet that you compare to, you know, were also very restrictive and very difficult to follow on a long term basis.

You know, like the calorie restricting diet or the ketogenic diet was very difficult for people that they're hard long term. You know, people can do the Mediterranean diet.

And that is a good diet. But consistently the period that was either twice, as effective or basically, you know, 40% more effective than the Mediterranean diet.

So if you want the diet that science says is the best you to do, the appeal of the diet, if you want the diet, that is the easiest to follow. The Mediterranean diet, you know, if that's the diet that you can follow, you know, that's fine.

I want you to improve your diet at the pace that you and your family I can manage. Yeah, because I think it's a long term commitment. You know, with any of these lifestyle changes. Yes.

You know, like, you know, initial few months are very important. But then if you, you know, fall back to your same practices, back again, you know, like the symptoms of the disease process might get worse again, too.

So it's something long term that people have to do. And what we've found in our clinics is that it was not uncommon for people to start off doing just the ads, doing basically Mediterranean diet.

They began to feel better. They're less inflamed, they had more energy. And after a few months they're like, well, you know what? I am going to take out the sugar.

I am going to, take out gluten and dairy, and I'm going to move my Mediterranean diet over to appeal to the gut, and then people get the next level of healing.

So again, if what you and your family can do is to just focus on the additions, that's fine. Focus on the additions. And when you and your family are ready to take the next level, then you say, okay, we're going to take out the added sugars.

We're going to reduce the flour based products. We're going to reduce it even further. You know what? We don't need those far based products. We're doing really great with our potatoes and the squashes.

Movement, Balance, and Closing Advice

And oh, you know, I'm going to switch from cow dairy to camel and sheep dairy and I'm going to switch from milks to cheeses and yogurts and that's, you know, and then I really do have more energy, and I do have more mental clarity.

And so make changes at a pace that you and the other adults in your life can manage. Have the adults agree first what what the changes are going to be.

Then tell your kids, and what I would tell our patients is your adult companion, have the conversation with them that when they're eating together as a family, you're making one meal, and the meal that you see is going to be the, the, the meal that you've agreed to when your adult companion is away from the home.

They could eat what they want. If they want to have pizza and beer perfectly fine. If they want to have, their crackers, and, toast, and, pastries. Perfectly fine if they're away from you.

But when they're together, we want to have one meal. And that's, a plan that works. And then we also, again, would have a traveling kitchen, and we would have cooking demonstrations of food swaps to make it easier to figure out how to have some family favorite meals using, you know, for example, cauliflower rice instead of, traditional, rice or, making some, gluten free bread options.

So people could have familiar foods with swapped ingredients to make it easier for the family. And I think that's really great that you are involving the whole family, into this, because a lot of my patients, you know, like this struggle, because obviously a lot of, Hashimoto's patients are female clients.

So they said, you know, I cannot eat like three different meals, you know, in, in just like, you know, in one household. When for me, when I've been in with my kids.

So I also tell them that, you know, get everybody on board and then have one meal, which everybody agrees on. So I am glad that you are swapping foods and giving them options in terms of delicious food with the whole family, when we have to have, a family intervention, if it means you're going to make, changes at a slower, more gradual pace, that is fine.

This is why additions are a great place to start. What to add? In how to gradually find food swaps that, you can explore, to have a meal that is a sort of a familiar meal where you swap some ingredients out and you're gradually transitioned from the standard American diet to more vegetables, more greens to gradually some alternatives to grain based products, and gradually into a pill.

I think that, that's been far more successful for many of our patients now, although I will say we do have some patients who are so ill, that they're like, you know what?

I want the most therapeutic diet. I I'm really ill. The, adult companions like. And I'm right there with my honey. We will do it as a household. And so there are people who are ready for a great big program all at once.

But the majority do the step by step, transition by doing the additions first and gradually reducing the, added sugars, gradually reducing the flour based products and easing into a healthy diet.

That's great. So we covered the diet piece of it. You know, you already spoke about stress. You already spoke about sleep. Anything else that you will, recommend people or that will be helpful for them?

You know, it's important to begin moving. And so, you know, I have a little timer on my phone, for example, every hour I get up, I'll walk to the kitchen or the bathroom.

I'll stop and do ten different events, to reduce the time spent sedentary, in my, practice at the VA, I would encourage getting a step counter or a wearable device to keep track of your movement and to work towards, the goal.

And even with my very disabled, patients, I said it's 150 minutes of moderate intensity physical activity, in the week. And so if you're severely disabled, maybe it's, half, you know, seated, jumping jacks or half have jumping jacks.

Maybe it's, stretching. Maybe it's just walking to the kitchen. Maybe it's pushing. You handle the counter, doing a few deep new beds while you're in the kitchen, so that we can gradually take you from where you're at towards that 150 minutes.

You know, ideally, we're getting some stretching, some strengthening, some balance work, because as we age, our proprioception goes down, our balance goes down, we get, greater risk for falls.

And so what we can do to strength training to protect our bones and our muscles aerobic. Most of us. I know that aerobics are good for us. Balance training for Ms.

turns out to be one of the most impactful, things we can do to reduce fatigue, improve quality of life. And so balanced train. You can start with putting, your feet side by side and, closing your eyes.

You have to do that in the hallways. You don't fall over. And so you're going to hit the hallways and get your feet closer together. Then you put one foot down, one foot toes down, then one foot down, the other foot up.

And when you get good at one foot down, one foot up, they start, turn your head side to side. Then you can even close your eyes. Now, when I do that, I still, I make sure I'm in the hallway or in the corner with my shoulders next to the corner.

So if I wobble, my shoulders can hit the corner. That is awesome. Again, I like that. You know how you break it down into bite size pieces for people, you know, starting with, like, you know, some slow and small things and then kind of you know, progress from there.

So that is that is an amazing piece. We covered a lot of things over here. You know, obviously we can keep going on and on, but in respect of time, you know, we will have to stop over here.

Any parting words you have for people, for anyone who's listening, there are multiple, if you have one autoimmune condition, you will get another every 5 to 10 years.

So it's really important to address the modifiable lifestyle factors to reduce the probability of getting any additional autoimmune conditions. And if I can come back from such profound disability, we've seen this in others with profound disability, coming back and restoring their function.

So whatever condition you have, there's absolutely hope for you that you can remarkably improve your quality of life. And, and that for you and your entire family.

Absolutely. That is great. And I think you are hosting an MS.. Something which is coming up. So tell people more about it. So, so I'm doing a bunch of interviews, again with other, health and wellness experts, what we can be doing to better manage our energy, our fatigue, our quality of life.

This is going to be a marvelous, marvelous event. You can learn more about that. You know, if you go to Terry walls.com, and go scroll all the way down to the bottom, sign up for my email.

That way you'll get a notice, and to sign up for that, M. S. summit is going to be marvelous. And then you'll also get my research updates and other, really, wonderful content.

So again, that's at terrywahls.com, and scroll all the way down to the bottom, Register for the emails. You can get the notice for our summit and all the other wonderful content that we have for you.

Absolutely. So please, again, you know, sign up for the newsletter that it is very important. And then this summit is going to be great. So, you know, if you want to learn more about image, this is the place to be in.

So thank you, Doctor Wahls, for coming over here and sharing your insight and your remarkable, story that is inspiration for everyone around here. Thank you much.

All right. Take care, guys. This is it for today. Bye bye.