



The Wahls Protocol for overcoming fatigue

Guest: Dr. Terry Wahls

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Kirsty Cullen - [00:00:15]

Hi, welcome to the Fatigue Super Conference. I'm Kirsty Cullen, CEO at the Optimum Health Clinic, and today I am joined by Dr. Terry Wahls.

Dr. Wahls is a clinical professor of medicine at the University of Iowa and a certified functional medicine practitioner. Further to conducting clinical research, Dr. Wahls has published over 60 peer reviewed scientific abstracts, posters and papers. In 2018, she was awarded the Institute for Functional Medicines, Linus Pauling Award for her contributions in research, clinical care and patient advocacy.

She is author of books including *'The Wahls Protocol: A Radical New Way to Treat All Chronic Autoimmune Conditions Using Paleo Principles'*. It is my absolute pleasure to welcome you today, Dr. Wahls.

Dr. Terry Wahls

Oh, thank you for having me.

Kirsty Cullen

So for those that haven't heard you speak before, your own personal health journey is, of course, central to your story and further to a diagnosis of secondary progressive multiple sclerosis that really led to your introduction, I suppose, to functional medicine. Would you be able to share a little bit of that story with us?

Dr. Terry Wahls

Sure, sure. So let me take you back really 40 years ago. I begin with intermittent electrical pains across my temporal region. They are gradually more troublesome. 20 years later, I develop weakness in my left leg, and that is when I'm diagnosed with multiple sclerosis. Now, being a conventional professor, I of course, treat my disease very aggressively. I go see the best people, take the newest drugs. Within three years I am in a tilt recline wheelchair. I take mitoxantrone infusions, then Tysabri, then cellcept. Nothing helps.

I, by now, am too weak to sit up at my desk. I order a zero gravity chair so I can recline back with my knees higher than my nose. And realize it's up to me. I have to do everything I can to slow my decline. I begin reading the basic science. I began experimenting on myself and the speed of my decline slows. I'm thrilled. Then I discover a study using electrical stimulation of muscles. I add that to my exercise program and my physical therapy. I discover the Institute of Functional Medicine. I take their course on neuroprotection, a longer list of supplements.

Not a lot's happening, but I have this really big aha. And I'm sort of embarrassed it took me this long to have that aha. It's like, what if I redesign my paleo diet, which I've been following for five years. Based on everything that I'd read from my basic science and what I learned from functional medicine and the ancestral health movement. So now I have a very specific dietary program, I go back to meditating and I stun everyone, because within three months my pain is gone, my fatigue is gone, and I am walking in the hallways without a cane.

And then another three months later, I am biking around the block. I'm crying, my family's crying. And of course, this changes how I think about disease and health. It would ultimately change the way I practice medicine, and it would ultimately change the focus of my research. And since that time, we've done four trials. We've got our fifth trial going, and we're writing applications now for trial six and trial seven. So a lot has happened in those intervening 10 years since I got up out of the wheelchair and started walking around again.

Kirsty Cullen - [00:04:04]

Hasn't it just. And isn't it fair to say, Dr. Wahls, that the common understanding of your diagnosis would have been that that was irreversible? So that was a complete shift in thinking?

Dr. Terry Wahls

Well, absolutely. So when you're in the relapsing remitting phase, you know, things get worse, get better, get worse, get better. And so, that's like, OK, you just had a remission. But I want to stress to everyone, I had converted to the progressive phase very early, very rapidly. And I had spent four years in the progressive phase where recovery is not anticipated. All of the neurologists that I saw had told me, very consistently, functions once lost will not come back.

And so, I did everything, not to recover, because I knew that was not possible, I did all that to slow my decline. In fact, I had remarkably improved. I'm walking around the block. My pain is gone. My motor function is clearly improving. But it's part of the combination, when you have a progressive neurologic disorder, is to take each day as it unfolds. And so, I didn't know what any of this stuff meant until the day I rode my bike, and then it was very clear on a visceral level that, the current understanding of progressive multiple sclerosis was incomplete and the current understanding of neurodegeneration was incomplete.

And then my Chair of Medicine called me and said Terry, what's happened to you is so remarkable. He gave me the job of writing up the case report, then writing the case series. And then he said, now we're going to have to do safety and feasibility studies. And I said, I don't know how to do that, that's not my training. His response was, we'll get you the mentors, this is your clinical assignment. And so I saluted and said, OK, sir, of course I will take that on. And it's been exhilarating, wonderful, and some of the most gratifying work I've ever done.

Kirsty Cullen

And I think that's really key, isn't it? Because presumably at the time of your illness, the concepts that you were following under your own steam, as it were, were very much outside the conventional medical thinking.

Dr. Terry Wahls

Yeah, absolutely.

Kirsty Cullen

How colleagues responded at first must have been very different to how they react now to your approaches.

Dr. Terry Wahls - 100:06:35

Well, let me tell you, when I first started shifting my focus of being focused on drugs in my primary care clinic, to talking to my patients about diet and lifestyle, my partners complained and I got called into the Chief of Staff, he said, Terry what's going on? People are really upset with you. Now, fortunately, I brought with me my armful of scientific papers and I said, this is what I'm doing and why and my Chief of Staff, and ultimately my Chief of Medicine, was very supportive.

But they warned me, they said, you know Terry if you hurt anyone, if you have bad outcomes, you will go through peer review, just like anyone else. I said, oh yeah, of course, that makes sense. But of course, we never hurt anyone. People lost weight without being hungry, blood pressure's improved, blood sugars improved and their chronic health problems generally improved and they needed fewer and fewer drugs.

And then my Chief of Medicine at the VA said, we're going to pull you out of primary care. Of course, I was not too surprised by that because the residents were, you know, I was such an eccentric, by the way I was practicing medicine. Residents didn't know what to do. Well, they're pulling me out because they want me to run my own clinic because they wanted me to be able to treat the most complicated, difficult cases that they couldn't help. And so we did that with, again, with remarkable success.

And then soon I was doing quarterly reports to the Chair of Medicine and the Chief of Staff at the VA talking about our experience. At the same time all this is going on, my Chairman of Medicine at the university had become the Dean of the College of Medicine, and he was very clear that the direction he wanted me to go in, which was do this very innovative research. And so I was so blessed, probably because he was a rheumatologist, so he saw how remarkable it was that a serious, serious disability from autoimmune disease was being reversed in my case and in our case series. So he wanted me to investigate that further. And so we did.

Kirsty Cullen

And I think one of the huge successes has been the creation of the therapeutic lifestyle clinic and the successes that were seen there. And those improvements in health were, from what I can see, were achieved with relatively simple approaches, without that usual battery of tests and complicated supplement complexes. Can you say a little bit more about the approach that you used?

Dr. Terry Wahls

Well, you know, life is the mother of, necessity is the mother of invention, really. So I learned of functional medicine, which was relying a lot on expensive testing, complicated supplement regimen. But my practice was in the VA, where I couldn't do fancy functional medicine testing and I couldn't use fancy functional medicine supplements. But I could use diet and lifestyle. I could use education. I created my clinics. So I first used just diet and lifestyle in my primary care to bring clients great success.

Then I was invited to create the therapeutic lifestyle clinic and now, what was so exciting, I could have as much time as I wanted, I could construct my team the way I wanted, and, but still I could only order very basic primary care labs. And what I learned was I could have marvelous results. You have to be able to inspire patients to want to make the change, to inspire them to be willing to go on this diet and lifestyle journey. I could create group clinics, group visits, I could have a team. And people wanted to work with me because they were so intrigued by the results that I was delivering.

And so, and another thing I want to stress is, the people I saw were the most ill in the VA. They were disabled, they weren't working, they were living on food stamps. And so we taught them how to cook again. We taught them meditation. We taught them how to meal plan, shop, cook using these radical things known as vegetables, cook using recipes, and then to learn how to cook just with the principles as opposed to being reliant on recipes. It was transformative for me, for the staff that I brought to work with me, but most importantly, for all those patients.

Kirsty Cullen - [00:11:31]

And before we sort of go into the research, Dr. Wahls, for anyone who's confused by the various dietary approaches, can you explain the key principles of the dietary approach that you use, the Wahls protocol approach and what that's founded in?

Dr. Terry Wahls

Sure, sure. So there are some dietary plans like the autoimmune intervention paleo approach, which really focuses on what to remove. I focus much more on what to add. There are a few things to remove. I remove added sugars, gluten, casein, and I also recommend removing eggs. But then we've put a lot more emphasis on what to eat. I stress more vegetables, greens, sulphur rich vegetables, deeply colored. I have different plans for those who are spiritually committed to being a vegetarian and those who are willing to eat meat. And we have a different plan for those who have a clinical reason to be in a ketogenic diet.

So this can be fairly personalized. But we teach people basically how to have a maximally nutrient dense diet that is diverse and has the nutrients to maximize mitochondrial function. Because you have to restore the mitochondria, so the cells can have the energy to run the chemistry of life. And you want to have diversity so you can have the most diverse microbiome.

Kirsty Cullen

And I expect those variations in the dietary plan have come out of necessity. I know in clinics certainly, we're always working to balance the practicalities of cost of food, food intolerances, keto vs paleo vs vegetarian, and it can be quite difficult navigating some of those restrictions with the ultimate goal in mind. Is that the reason that the plan has evolved?

Dr. Terry Wahls

Part of this is, in the clinic I learned that I need my vets to be willing to go on this journey together with me. And these folks didn't have money. They were living in small rural communities here in the Midwest, shop in small grocery stores. And I knew the foods that had healed me. I had to figure out how to create simple rules that, they could remember once they went home, that could guide their shopping plans. And so over that year, that's how we came up with, so it's greens, sulphur rich, color. And then we have to have sufficient protein and I do that according to whether they're meat eaters or not. And then, yes, there would be some clinical circumstances where I'd want someone on a ketogenic diet so we'd have guidance for that.

Kirsty Cullen

And obviously that transition, I'm always interested from a very westernized diet, a processed, modern diet. It's a significant shift, isn't it, into an increase in plant rich foods. Do you find barriers to that transition within your patients? And if so, how do you overcome that?

Dr. Terry Wahls

Sure, there are all sorts of barriers. The big barrier is time. Another barrier is what's available in their local grocery store. And then the third barrier is they may have never been taught how to meal plan, how to create a shopping list, how to plan for how they're going to use their leftovers to eliminate food waste. So there are many, many components that we need to teach.

And so, we would create classes to teach these skills because information is not enough. You tell people this is what you need, it will not be enough. And so we've created the Wahls Behavior Change Model, which is a very detailed step by step process to take people who have given up hope, and because the first step you have to instill is hope and the possibility that things could get better so that people are willing to risk dreaming of a better future, aspiring to a better future. And once we've created that possibility, then we begin in a very thoughtful step by step process. To lead them to taking action, but the steps typically have to be in achievable next step possibilities. If I ask them to

make a change that is beyond what they're capable of doing, they're going to fail.

Kirsty Cullen - [00:16:31]

And it is a very, it's a complex interplay, isn't it, between diet and lifestyle and what's practical, particularly in fatigue communities. You know, we're not capable of standing in the kitchen for hours on end or cooking complex meals so it really has to be practical on a real level in terms of freshly cooked, slow cookers, etc.

Dr. Terry Wahls

Right. It must be practical, achievable in a very, very real sense. And you have to recognize what is possible in their environment. If I'm talking to someone who lives in a rural small town in Iowa with a small rural grocery store, I need to think about what are the foods that they can really purchase and what could they purchase with their food stamp budget and what could they cook, given the limitations perhaps of their hands and of their ability to stand. And do have to talk about sitting? Do we have to talk about how they're going to chop their food?

And that's what we did in our classes. That's what I teach in the various programs and products that we offer the public, because information is not going to be sufficient in order for these people to succeed.

Kirsty Cullen

And fundamental to that ideology is the more processed the diet becomes, the more sick we become. I think. So, this importance of natural food factor is there.

You know, if we think about the evolution of ourselves over the millions of generations, our guts and our microbiome evolved eating, you know, a lot of dirt, a lot of plant material that was raw. One hundred thousand years ago, we began cooking our food. 300 years ago, we began having sugar and white flour, steadily more and more processed foods, such that our diet is radically different than how our bodies evolved. And with that, we've developed these broken biochemical processes, or I should say maladaptive processes, that are not associated with health.

And so, it's part of what we talk about, what we teach is that we have to get our biochemical processes tweaked and nudged back towards more of that health promoting physiology. And we work with our patients to do that step by step by step.

Kirsty Cullen

So I suppose we're learning from evolutionary practices, aren't we about health and lifestyle, but we're exploring whether it's possible to implement those in modern day life, in a more toxic world, in a more nutrient deplete world as well.

Dr. Terry Wahls

Right. We're trying to think about, OK, given my environment today, what could I do to make my food, my diet, my lifestyle look a little more like what my DNA would expect it to be, while still realizing I'd like to enjoy comfort and pleasure and joy. But we want to do that in a way that is health promoting as opposed to disease promoting.

Kirsty Cullen

I love this idea that you raise that we're essentially an ecosystem and we have a responsibility to safeguard that ecosystem and our microbiome in order to safeguard our health. Can you explain a little bit more about that concept?

Dr. Terry Wahls - [00:20:28]

Well, I rely on all of the microbes living on my skin, in my gut, in my mouth to help me run the chemistry of life more optimally. And just as we can see the life in a river at a marsh return to a healthier ecosystem if we get rid of the polluting compounds, we will often see the health of our ecosystem improve, if I get rid of the polluting compounds and if I restore a more normal foodstuffs.

And so again, gradually decreasing the intake of polluting compounds will be very helpful in gradually restoring the foodstuffs for the ecosystem. So in that case, those are our microbial friends. So that means I have to eat more fiber, more resistant starch and less of the food that feeds the wrong bacteria. So less highly processed starches, sugars.

And then I really want people to think about the processed food industry during the manufacturing process. The manufacturers are allowed to add quite a number of compounds to facilitate the manufacturing that don't have to be listed on the label, that are not part of the food system that our species evolved in over millions of generations. So they're feeding new bacterial strains that are making compounds that might be good for us, but are also making compounds that clearly are probably not so good for us and a part of why these compounds are disease promoting.

Kirsty Cullen

Aside from what goes into the body, Dr. Wahls, can we also talk a little bit about how there are other factors that affect this delicate ecosystem? So things like adverse events, stress, etc?

Dr. Terry Wahls

So, let's just talk about light. Our ancestors were outside 24/7, 365 days a year. So we were exposed to full spectrum of lighting from the sun, incandescent light from dawn to dusk. And during the evening the light becomes more red tinge, there's much less ultraviolet light, and then there is darkness at night. That really influenced our circadian rhythm and the timing of our sleep, the timing of the release of hormones. And every cell in our body has this clock this timing sense, this clock sense. When we have the artificial light, that has made life convenient because we can stay up past sundown, that interferes with that biological clock and the timing of sleep and the timing of the release of hormones and the timing of our biochemical processes. Big problem. It interferes with the chemistry of light.

Temperature. Again, for millions of generations, our bodies were used to warmer during the day, cooler during the night. When we don't have that temperature change again, that changes the sense of the biological clock, it changes the release of hormones. When we don't have the hormesis, the mild to moderate stress that are followed by sufficient recovery for ourselves to repair the damage caused by that mild to moderate stress. And we had all sorts of fluctuations of stress and recovery from having to, run really hard to get our food, to get away from predators, to get away from enemies, to catch enemies, followed by rest. We had that when we didn't have enough food to eat and then we had the opportunity to have sufficient food.

We had that with temperature. We evolved in hot and cold climates. There was no central heating. Now that we live in a very controlled environment, we have less and less stress and we're beginning to realize that absence of hormetic stress is harmful to our resilience metabolically, our resilience in terms of controlling inflammation, our resilience in terms of controlling our blood sugars.

So I could go on, but we probably have other topics to talk about.

Kirsty Cullen

I was just going to ask, does that realization around light, stress, fasting, availability of food, do those concepts play into some of the lifestyle tools that you would recommend?

Dr. Terry Wahls - 100:25:471

Oh, absolutely. And so in our classes we talk about that we have this huge palette of things that we can do to improve ourselves run the chemistry of life. We could focus on food. We could focus on stress reduction. We could focus on sleep. We could focus on movement. And so I invite people, pick one area, just start somewhere. And of course, I love for people to start on food, but not everyone's ready to do that. So we may move them on then to sleep or to meditation or movement.

And then as they get comfortable with that domain, then we start on another domain. And the other thing to remind people is, so I've been in this journey, really 20 years that I've really been paying attention to my diet and self care routine, in 10 years where I really began to understand and start getting it right. So the first 10 years, I wasn't getting much right. But the second 10 years, my most recent 10 years, I've been getting a lot more right. And I keep learning, tinkering, getting better and better. And that's the way it is for all of us. We learn, we get better, we keep refining, we keep refining, we keep refining.

I try to reassure people. I don't expect you to get it all right in the beginning. And that's fine. We start making changes at a pace that we can sustain.

Kirsty Cullen

I think that's really important, isn't it? Particularly in a fatigue community where we see such a fatigue tendency, it can be really destructive can't it, in the recovery process.

Dr. Terry Wahls

And we simply start in one of these domains where you are, where it speaks to your heart for you and your family, and that's where you begin. And of course, I encourage you to begin with food but if that's not what you can do, then pick another area where you could focus. And maybe it's sleep, maybe it is a meditative practice, maybe it's simply adding time restricted feeding to your current eating pattern. And so, you and your family could have the conversation about, OK, in all of this, where could we begin?

Kirsty Cullen

And within the picture of chronic illness, Dr. Wahls, which is so complex, we know it is, but are there any common root causes that you find within your patient group?

Dr. Terry Wahls

Some very, very common root causes. What happened at birth? What happened in early childhood? Was there microbiome disruption that occurred before the age of 3? And so, a traumatic premature birth, antibiotics, a C-section birth, formula fed over breast milk. So those factors.

And again, people who have had significant adverse childhood events have increased vulnerability to complex chronic diseases because our cortisol levels are imbalanced and we have a much more aggressive response to stress than the usual individual. And that high response to stress makes my cortisol excessively high, makes for more inflammation, more blood glucose and leaves me much more vulnerable to autoimmune disease, vulnerable to anxiety, to depression, to high blood pressure, insulin resistance, prediabetes, diabetes and heart disease.

Literally, I would say so, so many of my patients at the VA, in my clinical trials and in my clinics have these microbiome disruptions very early in life, which then trigger food sensitivities, which then put you down that cascade. And many, many have serious adverse childhood events. And so we have to deal with the microbiome, I try to help them deal with their adverse childhood events, getting them talk therapy to help with that. And then we begin unraveling the food sensitivity issues and their excessive response to stress, and so teaching them the self care routine around how we get that excess cortisol response tamed.

Kirsty Cullen - 100:30:42]

So it's almost an early years health programming, but it's not a fait accompli. And I think that's one of the turning points, isn't it? When a patient realizes they have the capacity...

Dr. Terry Wahls

To retrain. You can retrain. And I try to point out that, did they learn how to ride a bike? Did they learn how to sign their name? Those were discreet skills that they learned through a very gradual, repetitive process. And so now they can write their name fluently. They can ride their bikes fluently, but they couldn't in the beginning. We can retrain their cortisol response in the same way through a repeated training process so it can become fluent. It will take time. Just as it took time, and actually several years, to learn how to write your name fluently. It took time to learn how to ride your bike. Probably not several years, but it took a lot of time. And so that often gives them, aha, like, OK, well, OK. And so we begin the process.

But again, in our classes we work with patients to help to identify what were their triggers, because not everyone had early antibiotics and not everyone has early adverse childhood events. So, in our classes we help them identify their triggers so they can then identify like, OK, given my unique timeline, my unique environmental factors, these are the problem areas, and this is what I could work on. And then we begin. Because if I say this is what you need to work on and it doesn't resonate, then nothing's going to happen.

Kirsty Cullen

The self discovery of those factors is so empowering often, isn't it?

Dr. Terry Wahls

Yes, yes. And doing this, so another thing that I learned from my vets at the VA was just how much more joyful it is to do it with a group. I would bring people through group classes to hear about the lifestyle clinic and then invite people to come work with us if they're ready. And those who are ready, then we take them through in cohorts where we do the group discovery together and do the education and the classes together. And so, by the time that we graduate them, that group has learned a lot from me, but even more from each other.

Kirsty Cullen

So important. Dr. Wahls, could you tell us a little bit more about the clinical research that you do and some of the key findings that are a discussion about chronic fatigue and chronic illness?

Dr. Terry Wahls

So we've done multiple studies. The first study is in progressive MS as a group. They had severe fatigue, they were severely disabled between cane and walker and they had secondary or primary progressive MS. So you would not anticipate anyone is going to get any better. You anticipate 10 to 20 percent worse in each domain in the next 12 months. What we're able to show is that, in fact, fatigue scores reversed. So energy improved, anxiety reduced, depression reduced. And we saw that change remarkably early. And the other thing that's very exciting, if you were overweight, you lost weight without being hungry. So that was pretty cool.

Then we did weight loss controlled studies, so people were randomized to get the study intervention or to have to wait to get the study intervention. Again we were able to show fatigue reduced, mood improved and motor function improved.

And then we did a study comparing, the Wahls diet, a ketogenic version of the Wahls diet to weight loss control. And excuse me, again, we saw the same results of fatigue reduced, mood improved, motor function improved.

The next study is comparing the low fat swank diet to the Wahls elimination diet. That study, I can tell you, is completed. We've analyzed results. We have written it up and we're in the process of submitting to publication. So I can just tell you we're very excited about what we're finding and hopefully when I chat with you next, will have been accepted, we'll talk about those results.

We are writing up IRB protocols for the next two studies. Yeah. And they'll be, again, dietary intervention studies on one hand. And the other studies that I'm so excited about. We're writing a protocol to analyze, in weight loss control, how the efficacy of an online program teaching the principles that we use in my clinics, diet and lifestyle.

And I don't know how long it'll take us to get that through, but that will be very exciting because it'll be the first time that anyone's investigated how effective these online programs are. And I'm very hopeful that we'll have some nice results, because if we can show that, and I anticipate we'll be able to do that, that'll be our hypothesis, that we can improve diet quality, reduce fatigue, improve quality of life with an online program. This is now so much more accessible all across the world. So it will be just a marvelous, marvelous step forward in the treatment of autoimmunity, in the treatment of complex, chronic disease, and in the treatment for people with chronic fatigue from a wide variety of classes.

Kirsty Cullen - [00:37:13]

And of course, it's central to our model at OHC. And it always has been that way because of just the pure logistics of getting somebody with fatigue to a clinic in London, it's just not feasible. So, it's very much been based online.

I think that the intervention studies and the nutritional analysis work is just so key, isn't it, to understanding these dietary protocols and what the nutrient deficiencies might be that underpin. What have been your general findings around that?

Dr. Terry Wahls

Well, the big question that people push back on my dietary plan is, because we eliminate some components, like, oh, my goodness, this is not safe, you're creating nutritional deficiencies. So we've done several analysis of this. We did it from our very first study and we've published that data. No serious deficiencies were identified. We've done another deep analysis where we analyzed menus and recipes. Again, no serious deficiencies were found. And furthermore, it was superior to the dietary guideline's diet analysis as well. So that was very exciting.

And then we've analyzed from the real world case, from our most recent clinical trials, using weighed food records of what people actually ate. We've analyzed that data. I've seen it. I don't get to tell you because we haven't published it yet. But it's going to be very exciting when we do. And because in all of our clinical trials, and I have the devotion to diet and nutrition and food, unlike the other scientists who investigate these questions, we actually investigate what people eat, what is the quality of the diet? What are the nutrients provided? Are there any that are missing that over the long haul yes, in fact, will create problems? And I answer those questions. There is no other researcher publishing in the intervention world for autoimmunity or complex chronic diseases that does this. So when we'll be publishing that stuff, it'll be very, very exciting.

And the other thing that I'm so excited about is, because of my work and my TED talks, my books, and the published peer reviewed literature, we are driving changes in what's being done in the research world. Dietary intervention studies are in fact happening now. We've done the most, we have the most covered lives, but other people are doing it. I'm thrilled. I am thrilled to see that. I wish they would get more registered dietitians, researchers on their staff, so they would do the kind of studies that we do but they will eventually. And we're getting more funding, which I'll be thrilled to talk about when our next study is launched. You can help me recruit for that. It'll be very, very exciting.

Kirsty Cullen - 100:40:33

It's such important and foundational work. And as you say, it's key to process.

Dr. Terry Wahls

It's key to progress. If we're going to change the standard of care, you have to have peer reviewed research. You have to have it published in high impact journals, and then you get more questions to ask and you design the next study, get funding and do the next study. It's a marathon. It is not a sprint. It is a marathon. But, you know, I've been at it 10 years. We're having a big impact on what's happening in the research.

And furthermore, we're impacting clinical care. Now in the The National MS Society, which is actually a pretty big deal in the MS world, I am part of the nutrition subcommittee with neurologists. I'm one of the non neurologists in that committee, helping them create the resources for clinicians and for patients that talk about diet, why diet matters and how to sort out which diets are worth considering. So we are making a difference and it's immensely gratifying.

Kirsty Cullen

It's hugely exciting. And one final point I wanted to make was another piece of work that you did around the importance of the communication about fatigue within a family, within a caregiver dynamic and how important that understanding is of units of energy, relative to daily activity and how you communicate that with a caregiver or a family member. And how that can improve the dynamic within that group and quality of life.

Dr. Terry Wahls

Yeah, you know, we certainly want to talk about energy conservation, how to make it easier to do the task that you want to do. So very, very important. Very helpful. But I want to remind everyone in our clinical trials, in my clinics, at the VA, we took care of people with fatigue from a wide, wide variety of disease states. Consistently. As we taught people how to address the factors, particularly the dietary factors, when they'd come back to see us, people would come back with tears in their eyes saying, the fatigue is getting better, I have more energy. And that would be just 6 weeks later. Reduction in fatigue can happen very, very early, particularly when you cut the inflammation and you reduce the oxidative stress.

And the most rapid way to do that is diet. If people are ready to tackle that. And if they're not they have to go in a different domain. People know what they and their family can do. But the most rapid turnaround is when they take on the dietary aspects.

Kirsty Cullen

Dr. Wahls, I'm conscious of your time and as much as we could probably talk for another hour or so, we must let you go. But before we do, where can I direct people that want to find out a little bit more about your research and your work?

Dr. Terry Wahls

So come to terrywahls.com and if you want a one page summary of our dietary program that we use in our clinics, then go to terrywahls.com/diet

Kirsty Cullen

Many thanks for joining us once again.

Dr. Terry Wahls

Thank you.