How To Uncover Keys To Halting Neurodegeneration Transcript

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Introduction and Dr. Wahls' Background

Welcome to this episode of the Reverse Alzheimer's Summit. I'm your host, Dr. Heather Sandison, and I'm absolutely delighted have Dr. Terry Wahls here.

She's an institute for Functional Medicine, certified practitioner and a clinical professor of medicine at the University of Iowa, where she conducts clinical trials in the setting of multiple sclerosis.

And they're currently recruiting for a clinical trial that she's going to share more about today. So if your loved one could benefit from inclusion in this trial, please stay tuned and make sure you grab that Web address right away.

In 2018, she was awarded the Institute for Functional Medicine's Linus Pauling Award for her contributions in research, clinical care and patient advocacy.

She is the author of The Wahls Protocol A Radical New Way to Treat All Chronic Autoimmune Conditions Using Paleo Principles and the cookbook The Wahls Protocol Cooking for Life.

Pick up one of these at the Wahls Diet and more information about the Wahls diet at terrywahls.com/diet. So I'm so delighted to dive in with her because Dr. Wahls one of the things that I appreciate and respect so much about you is that you've been through this yourself.

You were diagnosed with M. S. and then you've dedicated your career to reducing the suffering that you know you had to experience. So reducing that for other people.

And I think that that is just such a unique story, such an inspiring story. And so I know you've told it over and over again, but would you mind just starting with your experience?

So, you know, before entering medical school, I was an athlete. I had competed nationally in full contact. Taekwondo entered medical school and then during medical school had began to have some tingling pain at my temple.

And if that eventually would be clearly trigeminal neuralgia. Then in 2000, 20 years after medical school, I started having weakness in my left leg. I get evaluated and we make the diagnosis of multiple sclerosis.

I'm a physician. I do my research. I find the best medicine in the country. I take the newest drugs. Three years later, I'm in a totally clean wheelchair.

Then I take my resentment of the former chemotherapy that I take Tysabri, the new biologic, and we're very excited about that. But I continue to relentlessly decline and then I decide to start reading the basic science and experimenting.

I focus on mitochondria because I think mitochondria drive disability and I can tell that it helps my fatigue just a little bit. But you know, I'm very grateful to have even that little bit of help.

MS Diagnosis and Personal Recovery Journey

Then I discover the Institute for Functional Medicine and I discover electrical stimulation muscles. That's in 2007. And I add e-Stim I add these supplements a much longer list of supplements and then I have this really big aha.

Like what if I redesign the paleo diet that I've been following already for five years based on this long list of supplements and I start this new way of eating December 26, 2007.

And for context, at that point, I could not sit up as I am now. I was in a zero gravity chair with my knees higher than my nose. That's how I saw patients at the clinic for the residents, and that's how I lived at home.

I could go out to meals. I couldn't go to restaurants or movies because I couldn't I could not sit up. And I was feeling that brain fog. So I knew I would soon be having to finally take medical disability.

I started this new way of eating and by the end of January I realized my mental clarity has improved, my energy is improving, my physical therapists are getting stronger advances, my exercises.

I can do my little tiny workout, ten minute workout twice a day. Now with my. e-Stim So we go to 15 minutes, 20 minutes, half an hour, and then I start walking with walking sticks and then with one walking stick and then with no walking stick And then on Mother's Day, I want to try riding my bike.

And so we have an emergency family meeting. My teenage children don't want me to do that because they don't want me to risk falling. But my wife, Jackie says, Let's give it a try.

So we all get in a position, she tells my 16 year old boy, six foot five. Zach, you run alongside in the left, my 13 year old daughter. Zibby, you run alongside in the right and she'll follow.

So we get in a position, she gives the all clear, and I bike around the block and that big 16 year old boy, he is crying. The 13 year old girl, she is crying.

I'm tearing up Jackie's cry. You know what? I relive that moment. I cry again because, you know, when you have progressive neurologic disease, you let go the future.

Because I had been told that I had accepted that when you enter the progressive phase of M. S., there is no recovery that functions once lost are gone forever.

Which is why I took incredibly toxic drugs with a 2% chance of giving me acute leukemia every time I took them, because, you know, I could still use my hands.

And that was really, really valuable. I could still wipe you know feed myself, wipe my own. Butt that was really, really valuable. So I was happy to take these very toxic drugs, which made me very, very ill so it could hang onto my hands a little bit longer.

So I had let go the future, even though Heather, I was walking around and I could walk around the block, I didn't know what it meant because I had let go of my future.

But when I biked around the block and we're all cryin, I'm like, You know how much recovery might be possible. So every day I baked a little bit more.

I did my little workouts. I was doing everything that my PTA told me to do. And then in October, Jackie comes home, says, Honey, I signed up for the courage.

Right? It's 18.5 miles. However far you can go will be great. And of course, at that point, the furthest I biked was eight miles. So that was like a really, really big jump.

But I did it when I crossed that finish line. Yeah, once again, we're all crying. My kids are crying, Jackie's crying, I'm crying. And this fundamentally changes how I think about disease and hope it will change the way we practice medicine.

And it will change the focus of my research. And it's it's become my mission to let other people know who have, you know, progressive neurologic conditions or progressive autoimmune conditions.

And even a few physicians say there's nothing that can be done. I want you to know that that's what I was being

told to, that nothing could be done. That function was lost or never coming back.

But, you know, I can bike for hours, I can hike for hours, I can drag on my treadmill, I, I strength train. I'm writing books, I'm doing research. A lot can be done.

And I want you, everyone who's listening to this to have hope. That is such an incredible and hopeful story and a big part of what you're doing now is making this accessible, not only changing the narrative so that people have hope, so that they know that there are things that they can do for neurodegenerative diseases, but also making this more accepted through the research rate.

The research is such a critical component of making sure that people get access, but it's not just saying that this is possible, but it's making sure that we systematize it, that we put the research out there.

That everyone's. Experience and everyone is told. Everyone has to have. And, you know, people ask me like, why? Why does that happen more quickly for everyone who's listening, we all develop our understanding of the world.

We start doing this as children. Then, you know, you go to school, then your medical school, naturopathic school. We have a clear understanding of the world.

And when I get new information that doesn't fit with that understanding of the world, I reject it. It's wrong. I have to get that information again and again and again before I want to say it.

Well, maybe I'm wrong and this is the way we all are. You know, it takes a lot. It taken a huge amount of information to come to me for me to ever consider that my spouse is not a wonderful human being.

You know, that's just incomprehensible to me. So we have to be mindful. There are physicians are doing the best that they can. And I'm hoping that by doing the research, going to scientific meetings, presenting our research, you know, I've done seven trials.

We're doing an eighth trial now, and our papers are getting into more and more high impact journals. I'm now getting published by Neurology, the highest impact journal of all.

We are a scientific network meta analysis review of all of the diet studies in M. S. And there are 12 studies, eight diets, the paleo diet, trade diet, low saturated fat diet, ketogenic diet, inflammation, calorie restriction and fasting strategies.

And then the eighth one, the usual diet. But the diets that were most effective for fatigue were paleo, Mediterranean, low sat, low saturated fat Paleo being about 50% more effective than either Mediterranean or low fat for improving quality of life there were two diets that were effective and that was paleo and Mediterranean, with the paleo diet being twice as effective as Mediterranean.

However, these other diets, you know, the Q genotypes, the intermittent fasting are also helpful. But their 95% confidence interval, that's a technical statistical term.

It spills over to favor the control so we can't call them as effective. But in my practice, depending on the person's clinical circumstances, I might well say the ketogenic diet or in a minute fasting is the preferred option.

So it's not that those are bad options. The research is just not quite as strong for them.

Research, Trials, and Diet Evidence

There aren't as many studies, which is why actually I'm very excited that I'm now studying the ketogenic diet and the paleo diet, unusual diet, because I do think for a lot of reasons, the ketogenic diet is also a really great option as well.

It's a great option for people in your tribe with cognitive impairment issues. That's certainly what we see. But before we go there, I want to know more about your trial.

So tell everyone when that at terri Wahls dot com forward slash my study this is quality of life and multiple sclerosis and the efficacy of diet on that quality of life.

So tell people a little bit more about that and who qualifies. You have to have relapsing remitting multiple sclerosis between the ages of 18 and 70 reside in the United States.

Although you can come from Canada or Mexico, you come to Iowa at month zero, three months, 24. We'll do a bunch of clinical tests of walking hand function vision.

We will do some surveys. We will also do a research MRI. So no contrast though. Let us look at brain volume and brain volume changes. The big question we're asking a primary outcome is can we improve quality of life?

I predict that we can. We'll also see it. Can we improve clinical functions? I think that we can based on our other studies. And the really exciting question is we know that people with M. S.

and also with Alzheimer's are brains are shrinking much too rapidly compared to healthy controls in the EMS world. That's about 1% per year, which is why we have higher rates of anxiety, depression, frailty, cognitive decline.

I think those numbers are very comparable for people with cognitive impairment as well, that their brains are shrinking too rapidly. In my clinical practice, I see brain fog goes away, mood improves and I'm predicting that we're going to see that we can get people to healthy rates of brain aging that is less than 0.3% per year, which is why we have to follow people for two years.

So we have a long enough time period. I think that would be super exciting. No, we we, we use a randomized process because that makes for the strongest evidence.

And if I want to change clinical practice, I have to have strong evidence. So you have to have randomized controlled trials. I know that we're giving people the control group tips every month on how to improve their diet, and I expect they will.

It's quite possible that all three groups are going to improve. All three groups will have better brain volume changes, that is healthier aging. And we're doing a food food questionnaire at maximum of 12 months.

Twenty-fourths. We know what people are eating. We're asking them to self classify their diets as well at the answer we know what they what they perceive that they're eating in terms of how they would describe their diet.

And we will anticipate having everyone through all of the state procedures by the end of 2026 and that in 2027 will be analyzing the data. And then in the winter and spring of 2028, presenting the data at scientific meetings, writing our manuscripts and having the manuscript hopefully published in later part of 2028 and shooting for neurology. We'll see.

That's really exciting. But it's a time frame that means that if somebody is experiencing symptoms right now, the conclusions of that trial are going to be out and accessible to potentially their doctor for several years for five years.

So I'm not doing the snail's pace of research. So in the meantime, there's a lot that we can do to optimize mitochondrial function, to optimize neurological function, neuroscience health, astrocyte microglial health.

I want to talk about all of these things and. I just make a comment. This is why at first I drove my partners at the university crazy because I'm doing the research.

I have a social media presence. I do witness education on social media. I run conferences, I teach clinicians. So they're like, Oh my God, you can't do that before you have all the research.

I said, I can't wait. I have millions of people with me worldwide who I could help right now. If they want to learn how to eat for better health, I'm going to teach them.

And that's how I think Dr. Bredesen and myself and many of the people at our community, it's like once you see people get better and for you, once you experience it yourself, you can't shut up about it.

You can't wait for the research to catch up. We have to tell everyone, and particularly when the risk of making the changes is low correct. You have to do the research.

These good randomized controlled trials. We're doing that. But for the people who are willing and interested in learning how they can use diet, how they could use targeted supplements, how we could help them begin exercising, meditating, improving their sleep well, working with their current medical team because, yes, there are FDA approved drugs for many neuro immune conditions.

And by all means, take the drugs. I took very potent drugs myself. Unfortunately, they did not help me. So it's not either or make your own decisions about the drugs and the adverse events and your tolerance for risk.

And I always want to take very serious risk, folks, so and I can appreciate that everyone wants to take that level of risk. But, you know, vegetables are pretty safe.

Protein is pretty safe. Meditation is pretty safe. Exercise supervised by a physical therapist, occupational therapist, pretty safe. A good night's sleep at night.

Well, man, that's really safe. So there are many things that we know have a favorable impact. Can you tell us about the similarities between Alzheimer's and M. S?

And because this is an Alzheimer's summit, maybe for those who don't know about multiple sclerosis, can you just give us a super brief explanation of what that is and what's happening?

Parto Physiologically. So in mice we know that these enhancing lesions and acute flares of symptoms, that's called a relapse and then the inflammation quiets down.

The body creates new sodium channels and we can transmit information and function proof. So it's called a remission. At the same time that we're having these relapses in remission remissions, we have progressive deterioration, progressive brain volume loss that is atrophy.

And beginning around age 45 to 50, we stop having relapses instead, we have this relentless decline. We're seeing fatigue, we're seeing, say, depression, more bowel, bladder problems, more problems walking and by the time we're 55, almost nobody has relapses.

Almost 85, 90% of folks will be in the degenerative phase. This looks a whole lot like cognitive decline in Alzheimer's. We realize now that Alzheimer's has an inflammatory component and a degenerative component and they're losing brain volume.

They have mitochondrial strength. They don't have the acute relapse and remissions and the motor problems that are typical of M. S. but in many, many features, it is very similar, and many of the principles of the interventions are very similar.

Dr. Bredesen I talked about this. We compare notes what he's doing, what I'm doing. There's considerable overlap. We both completely agree that the cognitive decline that we see in M. S., you know, they'll talk about the three holes in the rough.

MAN two Same 38 holes from us. You know, there are FDA approved drugs that do a great job of trade off the relapses from us. They don't have that for Alzheimer's, but there are no drugs that stop the neurodegeneration premise, which is why we can extend the time to wheelchair five years, but we can't prevent people going to the

wheelchair.

We can't completely prevent the cognitive decline. If you use only FDA approved drugs in. The good news is new media is getting less and less controversial in the mouse world that now more people are talking about.

We we also have to fixing diet. We also have to be exercising. We also have to be addressing sleep. We also have to be and this is why we're going to say, you know, mitochondria are really important, like, oh, my goodness.

So, you know, bit by bit, people are catching up in the Ms. world. When I, when I was at the Consortium Medicine US, which is the big international meeting of the people who take care of us, patients in the clinical researchers like myself, when I was going to all of the basic science talks, when I saw every single one and I should step back five years ago when the first time we went, our research professor was the only one talking about food, diet.

Last year, last May, we had four posters. There were actually several of the researchers talking about diet and lifestyle, very excited at the basic science talks.

MS, Alzheimer's, and Ketogenic Diets

Every single scientist was quoted our research and was talking about the importance role of diet that we know that nutrition is vital and that we need to be addressing nutrition and we can be having a debate which diet is better.

And again, it depends on the clinical circumstances, but we know one diet that is terrible and that's the standard American diet. And so describe your diet.

So a paleo, it sounds like from the research, the paleo diet is the best diet for M. S. And we both agree that a ketogenic diet really seems to be beneficial for cognition.

But I don't recommend a ketogenic diet all the time. I recommend for any patient of mine who is experiencing cognitive decline. They get into ketosis for 3 to 6 months and focus on Whole Foods, right?

Not keto bars and highly processed diet, but very much whole food based and lots of greens really foundationally lots and lots of green veggies. And then when they switch out of ketosis I recommend going paleo or Whole30, awesome and safe and increasing the fruits and veggies, the colorful fruits and veggies that tend to raise your blood sugar and backing off some of the animal protein.

So I'm curious what your it sounds like there's a lot of overlap in our diets, but please. What is the context of all the diets? So the standard American diet, Westernized diet has 250 to 300 grams of carbohydrates.

The Mediterranean diet would have about 125 grams of carbohydrates. The Paleo diet will have 80 to 100 grams of carbohydrates. The ketogenic diet, if you emphasize a medium change for groceries, that's about 50 grams of carbs.

If you don't emphasize medium term triglycerides, now you're 25 to 35 grams of carbs. And if you're on a modified Atkins diet, that's about 25 to 35 grams of carbs.

If you're on a carnivore diet, it's going to be even less. And then you could do a water diet where you're going to get nothing and you'll starve. You can't do that for very long.

And then I look at the walls, level one, if I want that to be gluten free, dairy free, that looks very much like a mediterranean diet, about 125 grams of carbs.

If they can't give up gluten or dairy, I'll just say do the Mediterranean diet. And we're stressing green, leafy vegetables, cabbage, family, onion, family, mushroom, family, vegetables, berries and deeply colored fruits and vegetables.

Insufficient protein. A lot of folks are not getting enough proteins. We have to do some education there. And I caution people that historically for millions of years, when we separate from the primates, we were in ketosis because we had to work so hard to get our food.

If you do 2 hours of vigorous physical activity, you've used up all of your stored carbohydrates. So you're in ketosis not because you ate lots of fat, but because you did lots of exercise.

And I don't know how else. We don't have really good data on how safe the current ketogenic diets are for the rest of your life. We just don't know, and they may be safe in their clinical reasons.

We'll put people on a Q genic diet for the rest of their life, but what I prefer that people do is a scheduling diet for the necessary time to address their medical condition and then fluctuate between keto and paleo at intervals that will describe.

But again, there are clinical reasons I won't put someone on a Q Jake diet for the rest of their life. Oh, interesting. They think they're. A seizure disorder.

Yeah, definitely. Absolutely. Cancers, particularly cancer that you can't really cure someone from. They're going to be a lymphoma, myeloma, leukemias.

They'll be on a huge diet forever. If someone had breast cancer, for example, and it's going to be five years before we can say that they're going to be cured.

Yeah, I'll encourage them for those five years to be in ketosis. And with cancer. This is because the metabolism, right? Cancer has a very issue. It's sugar.

It's in they can't the cancer cells can't burn ketones. So cancer cells, if you go into endocytosis before cancer treatment, whether it's chemotherapy or radiation, you're making the cancer more susceptible to the effects of the radiation or the chemo.

At the same time, you're making the rest of your cells more resistant to the harms of the chemo or the radiation therapy. That's exciting. Little cancer tips. I wasn't expecting that.

So you talk a lot about the different types of cells in the brain and have some kind of unique that's like what makes them toxic and more neuroprotective.

And Dr. Bredesen talks about this, like flipping the switch so that we're in hysterics. Oh, yeah, go ahead. Yeah. So we know we have astrocytes that surround the blood vessels and nourish the brain cells.

We have immune the immune cells microglia that inspect the environment and are either saying everything's fine, there's no pathogens, no damage, and they'll be very supportive of building more synapses, building more myelin.

Alexander sites. If the immune cells detect signs of damage, signs of pathogens, they're going to call in other, more strident warriors, more strident immune cells to come in and make enough toxic molecules that will kill off the pathogens, that will dissolve the damaged tissue so it can be taken up.

And they will keep that going until they detect no more pathogen, no more damage, then they can flip back to, hey, everything's fine. We can get back into the pro growth pro repair phase.

So it's not that inflammation is harmful or good. We need both. We need inflammation to kill the pathogens. We need inflammation to clean up the debris.

We have to heal that to call our friendly warriors the friendly place to, you know, take out the thugs. And then we had to say we took them out. We can call in now the general contractor who can do the rebuild.

And so a diet has played a big role in this, but so do other things. You've mentioned sleep and exercise and meditation, potentially stress management.

Can you tell us a little bit about what does a comprehensive approach look like? And so and I like to think about this from an ancestral health perspective.

So I go back to Oak for millions of years as the genus Homo or 20, 50,000 years as the species Homo sapiens. We slept when it got dark. We went to bed when it got dark and we slept in cool environments and then we got up when the sun came up.

And so going to bed in a dark environment, sleeping in a cool environment will help improve your sleep. Going outside as soon as you can.

Lifestyle Strategies for Brain Health

After sunrise for even for 5 to 10 minutes, sitting on your porch will help reset the circadian light signals to your brain to help get my hormones matching the day night cycle.

And that will help light exercise. It turns out we don't have to run or necessarily lift weights. If we would just walk a lot, that would be really helpful.

Although I do agree that strength training is really great for my body, so I do it three times a week. Flexibility and balance really good. And after looking at the research for how good Bounce Train is for cognition, for M. S., for my Alzheimer's folks, for my M. S., neuro immune patients, I do bounce trade every day in my shower, right and left leg, single leg stance.

And I have a little wobbly desk desk that I stand on and I will stand on that. And I think that's really, really very helpful. Have you started operating dual task exercises at all?

Have you seen the research on that? Well, that is super helpful. I have not started doing that in my exercise routine, although I think this is probably why partner dancing in martial arts is juggling that these things are so powerful because we are doing a complex motor task where I'm having to interpret these the sensory input and adjust my motor response to the visual sensory input.

And you know, Jacqui, I did some partner dancing, ballroom dancing like, oh, my gosh, it is so fun. It's a lovely activity and it can be a height. And for me, it's a high intensity exercise.

For Jack, it's probably a moderate intensity exercise, but lots and lots of fun. And I think that's a component of this too, is fun, right? We're much more engaged if we're having a good time.

And so, you know, as often as I hear people talk about getting online and doing their their, you know, or doing their Sudoku or doing their brain games, some people say they hate it.

And I'm like, I'm not sure that's as helpful as if we could do it. Yeah. You know, that's part of why I'll talk to people about exercise and your balance strength aerobic flexibility.

Those are all really good things. But the most important thing is that it's fun. And that you're doing it. That's going to make it so much more like to actually do it.

So it has to be fun. And if you're having fun, there are many, many, many kinds of exercise, physical activity. And, you know, let's let's face it, doing the laundry, going up and down stairs, chasing the kids.

That's physical activity as well. So our ancestors were not going to the gym. They were just having rich and full lives. And that's what I want my people to have.

And everyone who's listening to this summit, that's what I want you to have a rich and full life that includes a wide variety of physical activities. So we talk about diet, exercise, stress management, and these are the things that kind of put us in a neuroprotective state, put our in our the cells in our brain in that neuroprotective state.

So we've talked your diet, exercise, stress and sleep. I'm curious about. Yeah. So again, there many, many different strategies for stress reduction. If you're into gadgets and gizmos, there are all sorts of biofeedback devices that can help you train a variety of physiologic states.

That's great. You could just do meditation. There are a wide variety of breathing exercises, a wide array of guided meditations you can do Epsom salts.

I love taking Epsom salts and reading in my bathtub. Sometimes I do cold ice Epsom salts, sometimes I do hot Epsom salts, I do saunas. I like just sitting out in my yard.

I like sitting in my sauna, then going sitting on my desk in the cold in the winter when it's really cold, just wrapped up in my towel and looking at the sky so you could feel right.

But whatever challenges are heavy in life and we all have challenges. Things that were annoying that we were not planning on that is an opportunity for growth and learning that I would just as soon not have.

But here it is. And so you can set a little timer free right about that or you have to keep it. You can write it up and then throw it in the garbage or throw it in the recycling or throw it in your fireplace.

But there's some magic about writing about these challenges that let us apply new meaning to the experience that make it less stressful. So yeah. And then sleep another neuroprotective piece the.

I was young, you know, when I became a teenager I started having difficulty sleeping and then I went off to college and medical school and I thought, well, you know, there's a lot to do, a lot to learn and memorize in sleeping four or 5 hours a night is fine.

And then, you know, in the residency, that was a good night's sleep. If you get four or 5 hours and then eventually I learned that that was really bad for me, so I started paying a lot more attention to my sleep.

It's one of the reasons I really like my wearable device so that I can look at, okay, if I have a glass of wine with dinner, I don't sleep as well at night.

So a bummer. So I quit having a glass of wine at dinner. Although my my kids wear watching the Lions football and Green Bay Packers in the afternoon they were having a tequila sale to say, hey, mom, why don't you try it early enough in the day?

Maybe it won't bother your sleep. And they were right. It did not. So it's like, okay, I guess if I am doing something that happens to have an alcohol beverage around noon, maybe that's going to be okay. So I because I finally realized sleep is important and they really want to sleep 7 to 9 hours.

And I started paying attention to what interferes with my sleep, what leads to better sleep. In fact, I now do sleep 7 to 9 hours every night. As soon as I made it a priority and started paying attention to what were the things that helped me sleep better and what interferes.

For example, I this lovely meditation I do at night where I am going through some key part of my life. It might be when I'm a little girl, infant, my mom's bottle feeding me or my dad bedtime stories or one of my research mentors giving me some guidance.

I relive that moment and I thank them. And that's what how I fall asleep at night. So that gratitude practice is very calming for immune system. It's a lovely way to enter sleep and so I get to have multiple benefits.

They're amazing. So there are things that we can do that make microglia and astrocytes and these immune cells in our brain more toxic to us. Are there particular things that we want to know?

So terrible diet is probably number one, a diet that's really high in added sugar, high in processed foods. So by that mean of corn, corn sirup, white flour based products, notes in general, grain flour based products, and even the gluten free a lot of paleo friendly stuff here.

Friendly stuff are highly processed. So you're getting calories without nutrition, vitamins and minerals and you're getting a lot of surfactants, emulsifiers, additives that have been added that will disrupt your gut microbiome.

So it much rather that people eat what are again, if you think back to your great, great great grandmother and great great great great grandfather, they're eating vegetables, roots, fermented foods because there's no refrigeration meats.

They might have had beans and rice in pan where you're in the world. They probably would have. And they were growing a lot of their own food. They had dirt on their hands.

They would wash them not as often as we wash them. So it probably ate a fair amount of dirt in addition to everything else. I think that's a healthier diet.

I I'm not that fond of gluten free products. I'm fond of things that are gluten free without a label on them. That's really good for you. I'm not that fond of ketogenic products or paleo products that have a label on them, but I'm really fond of ingredients that are paleo or keto friendly.

Right? So that they go in through the produce section and the butcher of the grocery store versus down those middle aisles. But those foods are really designed to make money, even if you're in a high end health food store.

Exactly. And so so certainly diet is I think I completely agree that diet is where you can go kind of the most wrong. Right. And I think society's also set up for this.

We're heavily marketed, very poor quality food that is highly processed. Absolutely.

Toxins, Family Ripple Effects, and Resources

And on Saturday is basically a marketing opportunity to convince your children to become addicted to terrible foods. We see a lot of. Okay, all you grandmothers and grandfathers that are listening, I want you to stop feeding so much candy and cereal to your grandchildren when they come visit you.

Please just feed them vegetables, some fruit meats if you're vegetarian beans and rice and send the kids home on a healthy diet because you're wrecking the children's diets, you're wrecking their brains, you're increasing anxiety, depression, learning, learning disorders, behavior problems in your children, in your grandchildren.

And then, you know, we talked about exercise being so helpful. So a sedentary diet, we talked about sleep being helpful. So sleep deprivation, you know, there's kind of the opposite, the flipside of the kind of a lot of the things that are neuroprotective.

Is there anything else like toxins, toxic exposure, infection? Sure. Sure. So so much of our indoor environment, if you live in a very tight home, you may have a variety of indoor pollutants coming off of your carpets, synthetic carpets and laminate furniture.

So that may be a problem. The water coming from your private well, if you're in rural America or municipal wells may or may not have been tested for some of the pesticides that are now in the aquifer and in private wells.

So I encourage people to get, according to what you can afford, filter your water, filter the air in your environment. If you own your own home, put a high efficiency air filter on your water and on your air, and then think about reducing your exposures again according to what you can afford.

Go as organic as you can on your food, as organic as you can on your personal care products. And really, other than soap and water, you don't need much for personal care products.

You don't need to be spending 158 different products every day. You could put a little olive oil on your skin. You could brush your teeth with just a little bit of coconut oil.

That would be lovely. Eye or an essential oil. A drop of that. That would be lovely. You could put a little coconut oil underneath your armpits or you could just do a shower.

You know, that would be plenty. We don't need you. Billions. So millions are being spent to convince us that we stink, that we are unattractive without all of this nonsense.

One of the fun things about working with patients is seeing how they start to glow, how they start to look younger, they start to look more youthful. They and they're happier.

They're more engaged, they're more alert. The bags go away from under their eyes. And it is there's this natural beauty that shines through when you are eating well and appearance and rested.

And all of these the side effects is that people look better. So they need for beauty products. What we see in in our clinical trials and in my clinics is that and I saw this at the VA as well, that over the next year people regress about ten years.

And we had several of our patients tell us that film members would come see them, hadn't seen them in about a year, not recognize them at the airport because they'd lost 40 or 50 pounds and they look ten years younger like, oh my God, Mom, Mom, what are you doing?

Like, Oh my God, you are amazing. And the other thing I want to point out is, so in my V. A. clinic, people are in rural Iowa, rural Missouri, rural Illinois, small non you know, not Whole Foods.

So no organic food, frozen food, canned vegetables. They're just doing the best they can. They still had amazing results. They still had amazing results.

The they're losing weight without being hungry. Blood pressure's improving. Blood sugars are improving. The guys are coming back and they're like, Oh, my God, Dr. Wahls you mentioned you didn't tell me this.

My love life has come back. So the one thing that was not coming up is finally coming up again. And then the ladies, they are so thrilled because it's like, oh, my God, I've lost all this weight without being hungry.

And by the way, the guys lost all this weight to without being hungry, but they're more excited about performance than appearance. The ladies who are very excited about appearance and I said, and how's your love life?

Well, actually, you know, I'm getting a little bit more of that now, too. So they were more impressed with appearance and performance, but both were happy both for the men and the women.

And I predict that's probably what you're seeing as well. Exactly what we're seeing, it's it's really just such a privilege to work with patients and get to see the transformation.

And then I'm sure you have this, too. It's like, I'll the mom and she's maybe declining. And then then I start seeing the dad and then I start seeing the adult children.

And then, you know, we get to see kind of and then Sister of the original patient. And so I get to start to see the expanded family and see how all the pieces fit together and watch the ripple effect of someone becoming healthier and how that that sets to change the behavior of those around them and those who love them.

And it's really, really, really a privilege. And so it is so meaningful. In our clinical trials, encourage people to do as

much as they can as a family.

And so and I let them know that just because what I want you to around the patient the our trial support them and just have one meal when you're away from them, you get to eat what you want.

You know, the kids and the adults. But what people, as they begin to figure out, they feel better eating what our separate needs, they're eating less and less a way, you know, a different diet.

And, you know, people may come back for the three month hiatus. You know, the kids are so much better behaved. The grades are improving, the spouse's blood pressure is better.

And, you know, I'm less irritable and my spouse is less irritable. So the family begins to put it together like, oh, my gosh, this really is good for all of us.

And amazing what incredible work that you're doing. And I'm so, so grateful to you for spending the time. I know you're very busy, you've got a clinical practice and lots of of a family of your own.

You've got lots going on and doing this amazing work in the world. Where can people find out more? And we talked about the trial, but will you give them the web again and we'll have it in So terrywahls.com T E R R Y W A H L S. COM terrywahls.com/MSstudy go to my website terrywahls.com/email signup for my email so you can hear about our research.

We have a little research update and stuff that comes out every week. Follow me on Instagram @drterrywahls, D R T E R R Y W A H L S because you'll get to see what I'm eating and doing.

It's lots of fun. I think everybody would really enjoy that. Really fun. Well, thank you so much. I feel really grateful. I get your email newsletter and I open it and I learn from it.

And I also get to see you in about ten days at a research conference and I am planning to attend your talk and learn even more from you. Every time we connect, I learn something new and I couldn't be more grateful to you for being so generous with everything that you've learned, with your personal experience and just how you show up in the world.

Thank you, Dr. Wahls. Thank you.