

EPISODE 215

Proven Methods to Reverse Multiple Sclerosis and Other Chronic Autoimmune Diseases with Dr. Terry Wahls

Shawn Stevenson: Welcome to The Model Health Show. This is fitness and nutrition expert, Shawn Stevenson here with my talented, beautiful, smiling co-host and producer of this here Model Health Show, Jade Harrell. What's up, Jade?

Jade Harrell: What's up, Shawn?

Shawn Stevenson: How are you today?

Jade Harrell: I am refreshergized.

Shawn Stevenson: Oh come on now.

Jade Harrell: Man.

Shawn Stevenson: You're going to do that, huh?

Jade Harrell: I am, refreshergized.

Shawn Stevenson: Refreshergized.

Jade Harrell: Yes.

Shawn Stevenson: What is this?

Jade Harrell: Refreshed and energized because I took a break.

Shawn Stevenson: Yes, yes.

Jade Harrell: And was good to myself. I rested.

Shawn Stevenson: That's what it's all about.

Jade Harrell: Yes.

Shawn Stevenson: Treat yo'self.

Jade Harrell: That's right.

Shawn Stevenson: I like that.

Jade Harrell: Treat yo'self girl!

Shawn Stevenson: I like that. Coming back refreshed and renewed.

Jade Harrell: Yes.

Shawn Stevenson: It's always good to step away from the work and let it work on you if that makes sense.

Jade Harrell: It does. I did that.

Shawn Stevenson: So work on your work, and part of that is- you know that's one of the things we talk about, for a lot of people they're always trying to find a way to really hammer their body to try to get the results they want. Right? Working out.

Sometimes it's more important to work in for many people because it's really- all change is an inside job if you think about it. And speaking of inside jobs, our guest today, oh my goodness.

Jade Harrell: Oh yeah?

Shawn Stevenson: The story is just going to blow your minds. This is the kind of information that every single person on this planet needs to know about. We need to know that there are solutions when things go wrong.

We need to know that there are people, there are actually people who are in power positions at high levels who have been through those struggle points, who have been through chronic illnesses, so-called incurable situations and being able to reverse those things, and then teaching countless other people how to do that.

Jade Harrell: That's the key.

Shawn Stevenson: And that's what we're diving into today. So we're going to be talking to a superstar in the health space, but before we do that I want to give a quick shout-out to something that I use every day.

Jade Harrell: Every day.

Shawn Stevenson: You understand? Every day. Sitting by my bedside, sitting there on my nightstand, Activation's EASE Magnesium.

Jade Harrell: Oh yes.

Shawn Stevenson: Now check this out. The Journal of Research in Medical Science posted a study recently that supplementation with magnesium has been found to improve factors of sleep efficiency, sleep time and sleep onset latency, early morning awakenings, so this is preventing people from waking up too early, you know some people have that interrupted sleep, and also I.S.I. score which is the Insomnia Severity Index score, and also- now those were all kind of subjective things, now the objective things were the concentration of serum renin, and that's a marker of efficiency in changing your sleep cycles, right?

Jade Harrell: Right.

Shawn Stevenson: Also serum cortisol were improved, so that was reduced with magnesium supplementation, and increased melatonin. All from taking magnesium.

Please understand all of these things we're looking for for optimal sleep, which translates into an optimal life, which we've talked about many, many times in the show, magnesium is a big component of that because it's responsible for over 325 biochemical processes that we're aware of.

Jade Harrell: Right.

Shawn Stevenson: So again that means there's 325 things your body can't do effectively or efficiently if you're deficient in this particular important mineral, which the vast majority- this is the biggest mineral deficiency in our world today, especially in the industrialized world because this also functions as sort of this anti-stress mineral where it's buffering a lot of these pro-inflammatory processes, these kind of stress responses we're all subject to.

We live in a very different world than our ancestors did, so this is something we need to be proactive at getting into our bodies. Food first, make sure we're getting magnesium rich foods in, but today we need a little bit more insurance.

Taking an oral supplement of magnesium, you've got to be careful with that because you're not going to be able to get your magnesium levels up to the place they need to be because of what's known as this 'bowel tolerance,' a.k.a. you take even a little bit too much and you've got le poop pants. Alright you have the diarrhea.

Alright that's how you say it in Spanish I think, I don't know. Shout-out to everybody listening in Mexico, alright? That's how you say diarrhea I think, I'm totally making that up.

Jade Harrell: I love how you do that. That's crazy.

Shawn Stevenson: But that's what we need to be mindful of, right? So what is the solution? Topical magnesium applied transdermally on your skin. Over 99.9% absorbable in this particular product I've been using for about four years. I travel- I always travel with it, and it's just one of my favorite things.

So make sure to go to www.EASEMagnesium.com/model and you're going to get a 15% off exclusive discount that you're not going to get anywhere else, that I canoodled them into giving us.

Jade Harrell: Did your canoodling.

Shawn Stevenson: I had to put the pressure down that they give it to us, so head over there, check them out, you're going to get an exclusive discount. This is something you should definitely have on hand.

Jade Harrell: Got to have it.

Shawn Stevenson: Alright you're going to use the coupon code 'model' which is all over there on that site. So www.EASEMagnesium.com/model. 15% off, head over there and check them out. And now on that note let's get to the iTunes review of the week.

Jade Harrell: Oh sure, sure, sure. Well this one says, 'Fantabulous. Five stars. I've been listening to your show for about four months and I'm definitely hooked. I just turned 58 and have always worked out and tried to eat organic whole foods and keep treat to a minimum.

I married a wonderful man after my husband of seventeen years committed suicide. Definitely a dark time for me and my daughter who is now fifteen.

I love my husband and my daughter, but they both love their junk food. I found myself getting pulled into my husband's habits a little bit, but listening to your show has helped me move to the next level and stay the course. I've tried a few of the recommended products, and I've read 'The Bone Broth Diet,' and I'm halfway through 'Deep Nutrition.'

I find this stuff fascinating and I started out wanting to be a dietician but ended up being a procurement executive. I'm retired now but very busy, never retired, and I'm struggling with pulling people I love into understanding what they are doing to their bodies, but my best friend told me she's tired of hearing it so I guess I'll stop. Keep doing what you do, it makes a huge difference. -Carrie'

Shawn Stevenson: Wow Carrie, that is such a powerful story on so many levels, all I can do is say thank you for sharing it, and thank you for sharing your voice over there leaving us a review, I truly, truly do appreciate it. Sending you a big virtual hug,

and everybody thank you so much for leaving these reviews on iTunes, it means the world to us and helps to keep the show growing.

And make sure if you're listening right now and you have not yet subscribed to the show, make sure to hit that subscribe button, alright that's important so that you get updates about the show, and when we put out- even we've been sneaking a couple little bonus episodes as well, so you stay up-to-date with everything.

Alright I appreciate you guys so much, and on that note let's get to our special guest and our topic of the day.

So our guest today is the one and only Terry Wahls. Terry Wahls MD is a clinical professor of medicine at the University of Iowa Carver College of Medicine in Iowa City, she's super close to us, and the Director of Therapeutic Lifestyle Clinic at the Iowa City Veterans Affairs Healthcare System.

In addition she's a clinical researcher studying the use of diet and lifestyle interventions in autoimmune and other chronic disease states.

Her current clinical trial features the Wahls Paleo Diet, received the support of the National Multiple Sclerosis Society. She's a leader in the Food as Medicine movement, and she has made it her mission to spread the word about 'The Wahls Protocol' in her own inspirational story of recovery through her TEDx Talk which has over 2.5 million views, something crazy.

Because again, people want to know this story. And her website, www.TerryWahls.com so you can check her out there, and I'd like to welcome to The Model Health Show, Dr. Terry Wahls. How are you doing today, Terry?

Terry Wahls: Hey thank you so much for having me today.

Shawn Stevenson: Oh it is such our pleasure, I'm very, very excited to have you on. And something that we've talked before, but something that I don't know, and I'd like to know this kind of superhero origin story of yours. What got you interested in health, and medicine at the very beginning?

Terry Wahls: Well you know when I was a kid actually I was into fine arts and I went off, I have my Bachelor of Fine Arts in painting. And as I was contemplating getting a Master of Fine Arts I ended up deciding that I would explore my love of science, and that would lead to medical school in being a physician.

And I must say my fine arts background meant I really had a very different- I added to a different point of view going through medical school and dealing with my patients.

Shawn Stevenson: That is so interesting and you're right, you're talking about a whole different part of the brain being active and maybe kind of this whole brain

learning, whole brain patterning. That's fascinating. I had no idea you was into the paint game! I love that.

Terry Wahls: Yeah.

Shawn Stevenson: So when you were going through this process, you know you graduated, you had a thriving practice, but then you hit a pretty significant bump in the road. So can you tell a little bit about what happened with your story with your own health?

Terry Wahls: Well you know I'll say that I was like many conventional physicians. I was very skeptical if people were taking vitamins and supplements and alternative medicine, I thought people were just wasting their money.

And then of course you know God works in mysterious ways.

In 2000 I was diagnosed with Multiple Sclerosis and I believed in the best drugs, newest technology, so I decided to find the very best people that I could find that did clinical research which was at the Cleveland Clinic, saw their best people, took the newest drugs, and still within three years my disease had transitioned to the progressive phase of the illness, so there's no more spontaneous recovery at that point.

I took the chemotherapy in the form of Mitoxantrone, I continued to decline. When it became available I took Tysabri, that first new very potent biologic and continued to decline.

Then I switched to another drug called Cellcept, and by that time I'm in a tilt recline wheelchair, I'm having difficulty with fatigue, I'm walking short distances with two walking sticks, and it's apparent to me that the best conventional medicine is not going to stop my decline into a bedridden, possibly demented life.

I've had pain as a big part of the MS symptoms since the beginning, and so I also saw that my pain was getting more and more difficult to control. And that is when I decided it was time to start reading the basic science myself.

You know what? At first I was looking for the latest on the drug studies, and fortunately I eventually realized that I should be looking for things that I could access, and that was really the vitamins and supplements, and so that's how I started.

Now eventually I discovered the Ancestral Health Movement, I discovered the Institute for Functional Medicine, then I would combine all of that in the summer and fall of 2007 to create what I now call The Wahls Protocol which really led to a radical improvement in my health and function.

Radical enough that within twelve months I went from being unable to sit up, struggling to walk ten feet, having severe fatigue, very poorly controlled pain,

struggling with brain fog; one year later I can walk around the hospital without a cane, I can do an eighteen mile bike ride with my family, my fatigue is gone, and my pain is gone.

So radical, radical change in health, and I'm not on any disease modifying drugs at that point. This is all diet and lifestyle driven.

Shawn Stevenson: Wow, oh my goodness. That's pretty remarkable to you had a pretty severe case where this really took away a lot of your function, right?

Terry Wahls: Oh yeah. You know steady decline, rapid decline over the seven years, severe fatigue, worsening pain that was hard to control, I was beginning to have cognitive changes. My Chief of Staff that summer had said he was going to assign me to the Traumatic Brain Injury Clinic come January, and I'd be seeing patients without residents.

Now I knew, and my family knew that that was really the VA's way of saying, "We're done redesigning your job for you," that it would time for me to take medical disability because no one thought I could do that job.

But of course as it turns out, as I said God works in mysterious ways, because by the time January rolled around in fact, my energy was improving, my mental clarity was improving, and I discovered that in fact I could see those patients.

Shawn Stevenson: Wow.

Terry Wahls: And I brought to that clinic then my point of view that wait a minute, there's so much we can do to restore and rehabilitate brain injury using diet and lifestyle.

Shawn Stevenson: You know this is really fascinating because this particular story to see, I mean this is something you see on a movie, right? Like a Steve Martin movie where he's like a healer, he comes over and the person gets out of the wheelchair. You literally were that person where you were bound to a wheelchair.

Terry Wahls: Well I talk about the day I did that bike ride, up until that point as part of the coping with having a progressive illness, many of us learn to just take each day one day at a time, no expectations.

And so even though I'd had remarkable improvement I was still just taking one day at a time, no expectations, I didn't really know what this meant.

But when I got on my bike, and my daughter was on one side jogging next to me, my son's on the other side, my spouse is on the bike behind me, I pedal around the block, I'm crying, my children are crying, my spouse was crying, and this was when hope comes back into my life because I understand that the explanations for

progressive MS are wrong, that my physician really doesn't know what to expect, I don't know what to expect, and who knows how much recovery and function might in fact be possible.

Shawn Stevenson: Right.

Terry Wahls: And so I call that is the day that hope re-emerged in my life.

Shawn Stevenson: I want everybody to really hear that because sometimes, especially when we're in it, it can be very difficult to have the prospects of something called hope. Right?

But she just said it so perfectly to keep moving forward, taking one day at a time, but I implore you to keep in the back of your mind that as long as your heart is still beating, progress can be made. You know?

And so she was very adamant about finding out those answers. It kind of got to the point where enough is enough and how many of us wait until we get so far gone that we try to make a change?

And so this is a great story here of what's possible. No matter where you are right now, or one of your loved ones, there is hope, there are solutions but we have to be adamant about employing what those things are.

Jade Harrell: Sure and the hope, and then amplify those things, it adds to the opportunity of it. So I love what you said about as long as your heart is beating, then there is a possibility, there's hope there.

Shawn Stevenson: Alright so check this out. Now we've covered some of the background but I really want to dive in and break down what MS is, because this is something that's becoming a lot more prevalent today and according to Reuters, Multiple Sclerosis has increased globally by 10% in just the last five years alone. So most physicians are baffled by it. Can you share what the underlying cause behind the illness is?

Terry Wahls: So the conventional physician will tell you that the immune system is attacking the fatty insulation on the wiring between brain cells and between cells in the spinal cord. That's called myelin.

Now like you can ask, 'So why does the immune cell get confused to attack its normal structures?'

We think it's that somehow there's an earlier infection that I had, some amino acid sequences that looked a little bit like the amino acid sequences in myelin, and that infection triggered this confusion in our immune cells.

And the conventional doc will say, "I don't know how to turn this off so I have to turn off all of your immune cell functions to some degree to decrease the number of acute episodes of worsening, and hopefully maintain your function."

So they'll give people increasingly potent drugs to turn off the immune cells as their treatment. Now the problem that I have with that, is I need my immune cells to maintain and repair my brain, and my body, and all of my structures.

So whenever I take drugs that block that, I cannot maintain and repair my brain and my body so I'm at higher risk for infection, for cancers, and more rapid aging because I'm not able to maintain and repair my body.

Shawn Stevenson: You know what? This is- I'm just writing down very poor solution to this issue, right? And it's kind of obvious.

Terry Wahls: Well it doesn't get to the root cause.

Shawn Stevenson: Right, yeah.

Terry Wahls: Of why people became ill, nor does it get to what are all the environmental factors?

Because the epidemiology is very, very clear that the genetic component is actually very, very small. That each gene that might increase my risk, for the vast majority of folks with that gene, they don't get an autoimmune problem, they don't get MS.

It's a complicated interaction between the genes I have and my lifetime of diet and lifestyle choices and environmental exposures.

Shawn Stevenson: Yes.

Terry Wahls: There is so much that we can do to address those diet, lifestyle, and environmental exposures which probably drive 97% of the risk of why you developed MS, and how severe or not severe your disease is.

Jade Harrell: I'm thinking of man it took a long time to accumulate the conditions that are favorable or open up the door for this to happen. And so to know that within twelve months and that there's something we can do about it is something that's really exciting, but then I wonder how did we address the lifetime of habits that kind of created the condition?

Terry Wahls: Well you know when I would see people in my Lifestyle Clinic, and I must tell your listeners that I retired from the VA, so now I'm just over at the U.

But when I was seeing patients in my Lifestyle Clinic, I would tell my story, review functional medicine, review the protocol, and then invite people like, "Okay you can

decide that you're ready to be 100% all in and work with us in our group classes, or you can say, 'I just sort of want to ease into this and work individually with my nutrition person.' Or you can say, 'You know what? This is too hard, this is not the right time in my life,' and just go back to your primary care doc."

And then people came to our group classes, we would do cooking classes, I'd do a very careful intake showing them how their lifetime of exposures contributed to their health problems. So they would get 'aha' moments and then be willing to do the work involved.

We'd help them identify the diet that would be most successful for them, and then we'd do these cooking classes and show them that bacon and greens could be their favorite vegetable, that green smoothies can be incredibly delicious, and that sautéed vegetables with olive oil after you've done your cooking can be incredibly wonderful.

So it is just very important to help people practice the skills that they're going to need to address their food, their stress reduction, their detoxification processes, and of course moving more.

Shawn Stevenson: Yes, yes. And so I want to dive in and come back and talk about all of those things, but I want to really kind of pin down and hammer in on this point about the condition itself.

You've mentioned that there's epigenetic influences here, because this is one of the things people buy into, is that this is genetic control, I've got some genes doing some things to me, and so can you talk a little bit more about that?

Terry Wahls: Sure. So you know when I went to medical school, I went to medical school in the seventies, we were so excited about the Human Genome Project because we'd get the sequence in our DNA, and then we'd understand how to deal with chronic disease.

But when we got our DNA we discovered that it really didn't explain who was ill and who was healthy very well. The person who helped us tease it out was Randy Hurdle, we had some mice, agouti mice that would develop yellow fur, severe obesity, severe insulin resistance and diabetes. And they were all genetically identical, it was a great animal model for diabetes and obesity research.

But he figured out that if he fed pregnant little mice mamas extra B vitamins and extra methyl groups, instead of having the yellow furred fat little mouse babies, they had normal furred healthy robust babies. Sort of like, 'Huh.'

So changing the mouse chow changed whether or not you had a disease prone sickly little mouse or a disease-resistant healthy mouse. He's replicated that research in many cases now, but we've come to realize that my DNA is speaking continuously to the environment, and the environment is turning genes on and turning genes off,

and so my environment which is the food I eat, the activities I do, the toxins to which I'm exposed, my self-talk, my social network, my physical activity level, how much I'm sleeping, my stress levels; all those things are talking to my genes all the time, shifting genes on and off.

And so I can change my diet and lifestyle choices and shift what should have been a disease-resistant healthy body into an inflamed sickly disease prone body by eating a lot of sugar, junk food, not being active, and being in chronic conflict.

Shawn Stevenson: Wow. We've got to come back and talk about that as well. We've talked to of course many experts over the years and it's kind of becoming more and more well known. We're talking about like upwards of 90% of your gene expression is really dependent on your lifestyle, the environment around you and the environment you create within your body.

And one of the things that I want to ask you a little bit more about because there are people listening with family members who are dealing with MS, or they have MS themselves, and talking about the myelin.

And we've mentioned this a few times on the show, but basically so this is this insulation over these nerve pathways, and the more that we are repeating a behavior, the more myelin is getting laid down. So this starts to basically break down your kind of repeated behaviors like being able to move your body, right?

Terry Wahls: Correct.

Shawn Stevenson: And also like we were talking about earlier, some of the things that can happen with brain function. So can you share some more insights about MS for the listeners?

Terry Wahls: Well so I've told you what the conventional approach to MS is, which is immune suppression. Can I tell you about my point of view on MS?

Shawn Stevenson: Would love to hear that!

Terry Wahls: Should I go there?

Shawn Stevenson: Yes.

Terry Wahls: Let's go there. So I want to address all those environmental factors that are talking to that genetic vulnerability.

So we'll talk first about what can we do to make it easier for the brain to repair that myelin. So you need to turn the genes on that are involved in stem cells in the brain.

How do I do that? Physical activity.

So part of The Wahls Protocol is how to resume physical activity in a safe, gentle way that is not too much so you're overly exhausted, but it's enough to stimulate the nerve growth factors that have to get turned on in your brain to give your brain the signals to repair the myelin. So physical activity is very, very helpful.

Shawn Stevenson: Okay.

Terry Wahls: And then if you're going to repair the myelin, you can't repair the myelin if you don't have the building blocks that go into the myelin. So you're going to need fats, Omega-3 fats, Omega-6 fats, you're going to need cholesterol saturated fat.

All those fats, all four of those; Omega-3, Omega-6, saturated fat and cholesterol go into that myelin sheath. You have to have all of them on board. And then we need sort of the co-factors that we need to do the chemical reactions.

That's going to be like your B vitamins and your minerals. I was glad to hear you talking about zinc- pardon me, about magnesium, I'm going to pitch you out there for zinc as well, I'm going to pitch you out there for organ meats, it's really good for you there, and then the greens, the sulfur-rich, that's the cabbage, onion, mushroom family, and the deep colors.

That whole combination there will do a nice job of making sure that you have the building blocks on hand to do the repair work for that myelin.

Shawn Stevenson: Oh my goodness. We've got some really important bulletpoints there that you just dropped, one that I want to go back to because for some people it's still a dirty word, and that's cholesterol.

You know we've done entire episodes really kind of diving and breaking that down, but some people might not have heard those particular episodes. So let's talk about that. You said cholesterol is an important nutrient for building our myelin.

Terry Wahls: Yeah it's vital on so many levels. So cholesterol and saturated fat make up 70% of our cell membranes, 70% of the myelin. The Omega-6 fat makes up about 10% of the myelin, and the Omega-3 fat makes up about 1% of the myelin for cell membrane.

When people are taking drugs to severely lower their cholesterol, then that can lower the quality of the cell membrane, lower the quality of the myelin, make it much harder to repair the myelin.

And you know, when people think about the literature that said cholesterol is what causes heart disease and heart attacks, that was based on our epidemiology, World War I, World War II where during the wars the rate of heart attack and stroke

declined sharply, and they thought it was because the intake of butter and eggs declined sharply.

At the same time, the intake of sugar had declined sharply, so it was probably a sugar effect. There's more research now that has clearly shown that the blood value of cholesterol doesn't really predict very well who's going to have atherosclerosis or clogging of the arteries, who's going to have heart attacks, who's going to have strokes.

We keep analyzing cholesterol in more different ways to try and zero in on what is it? And it appears that it's the damaged cholesterol molecule that is inflammatory.

Shawn Stevenson: Yes.

Terry Wahls: That molecule got damaged by an infection particle, a virus particle, a bacteria particle from chlamydia, a heavy metal ion such as lead, arsenic, or mercury, and when these cholesterol molecules are damaged they become small, dense, and very irritating. The other thing that damages cholesterol is the sugar molecules.

Shawn Stevenson: Right.

Terry Wahls: That will also damage it. So you know, in my book I talk about we need to protect our cholesterol molecules by getting rid of the sugar, eating vegetables, flossing our teeth- I'll say that again, flossing your teeth. Floss your teeth, floss your teeth.

Shawn Stevenson: I was going to go, "What??"

Terry Wahls: It's really, really helpful to prevent heart disease and stroke and a lot of bad things for you. Get rid of the sugar, I also advocate getting rid of the gluten of course, and that will go a long way to protecting those cholesterol molecules.

Shawn Stevenson: Wow, so powerful. She even dropped the flossing thing in here, and we've talked about that too, just it can be a potential place of this systemic inflammation and the markers that are going up in your body that can contribute to problems, but we don't think about that. And sometimes I like to say that not flossing is like not wiping.

Jade Harrell: Not wiping.

Shawn Stevenson: Alright so just keep that in mind, we want to make sure we're flossing regularly. So everybody check this out, we're going to talk about a little bit of a pattern that I've found, and I want to ask Dr. Wahls about, and this particular nutrient that is getting a lot of press today but I found this to be very interesting. Plus

we're going to talk about how does stress play into this whole equation right after this quick break, sit tight, we'll be right back.

Alright we are back and we're talking to the one and only Dr. Terry Wahls. She shared her amazing story and some incredible insights, but I want to ask you about this pattern that I've found, and there was some really fascinating statistics that significantly more MS cases occur as we move up to the northern parts of the globe, right?

So we're getting less and less sun exposure, so I'm curious what role sunlight, specifically vitamin D might play into this whole equation.

Terry Wahls: Well I'm going to talk about them separately. So vitamin D ties in beautifully to the cholesterol. Cholesterol is modified to make vitamin D. Cholesterol is also modified to make estrogen, testosterone, and a lot of our stress hormones.

So it's a precursor for our hormones, cholesterol, in addition to being important for our cell membranes. So we really do need cholesterol, folks.

Now vitamin D speaks to about 1,000 genes, turning genes on and off, and if your vitamin D level is too low you're at risk for all sorts of bad things; autoimmunity, cancers, mental health problems, pre-term labor, infertility, learning problems with your children, behavior problems with your children. Very important.

Vitamin D works in our immune cells, it works in our brain, it works in our bones. We know when we supplement with vitamin D it's important that you also have vitamin A and vitamin K which is one of the reasons I'm so keen on having liver, great source of vitamin A, also has some vitamin K in it, and I'm very keen on greens for that vitamin K.

Because you want to have vitamin D, vitamin A, vitamin K because you need all that to get the calcium into the bones and the teeth, and there's more and more evidence that the vitamin K is very, very important in making myelin in the brain, and vitamin D, very important in the brain, vitamin A, important to bone health, important to skin health, and important to immune cell health.

Let me touch on skin, we know that the skin- the ultraviolet light, so that's sunlight hitting our skin has an important impact on our immune cells independent of what it's doing with vitamin D.

Shawn Stevenson: Yes.

Terry Wahls: So while I can have people take vitamin D supplements, which I do and we talk about making sure they have plenty of vitamin A, K, and E, I also talk about we actually do need sunlight, folks. That sunlight is an important nutrient that our species for millions of years were out in the sun 24/7, 365 days out of the year.

Now as you went north into areas that had winter, we had to dress warm, but we still had our faces exposed that got sunlight all the time. And this was very artificial to be indoors all day working and doing recreation indoors, and then physicians- and I was guilty of this too, physicians are saying sunlight increases your risk of skin cancer so please put on sunblock which prevents people that need to get that vitamin D made, and prevents the changes of that support immune cell function when you get the sunlight.

So I want people to have sunlight, I don't want them to get sunburned.

Shawn Stevenson: Right.

Terry Wahls: But I do want them to get sunlight exposure every day. The light, for no other reason, to sleep at night. You've got to get outside, take your dog for a walk, take your companion for a walk, take yourself for a walk at least ten minutes, preferably half an hour to get the light into your eyes so that your brain knows what time of day it is and your brain will make melatonin at the right time in the evening.

Shawn Stevenson: I love you.

Jade Harrell: Yeah.

Shawn Stevenson: I just love you, you're bringing together so many of the important points that we've talked about over the years.

I actually did an entire article dedicated to people with the whole sunglasses are cool, right? You look cool, alright? And some people are wearing them, rocking them at night, too. You know shout-out to Pitbull, Mr. Worldwide.

But here's the thing, is that we need to get sunlight through our optical receptors because that's really helping to set that circadian timing, you know? And so also it's just nutritious, and I love the fact- this is what she said, this is powerful right here.

This is that power nugget for the episode. Sunlight is an important nutrient.

Sunlight is an important nutrient.

So I would phrase it like this; your body eats sunlight, right? Your cells eat and consume sunlight. Your skin absorbs it, it's a nutrient. Anything that we're taking in from the outside world, so your body literally eats light, and it needs it not just for the vitamin D production, I'm so glad she brought that up, but also for your immune function.

And we're talking about MS, we're talking about what's going on with your immune system, it's a big, big component of that. And so she just put it here in black and

white, so it's not to run out and sit in the sun all day with pasty white skin, shout-out to Conan O'Brien, and just get sunburnt, but we need to make sure we're getting some adequate sun exposure directly on our skin.

And of course this is something that's becoming a little bit more well-known, but some of these kind of synthetic sunscreens that people are using, putting on their kids, are contributing to skin cancer.

Terry Wahls: Yeah it's definitely a problem. I want people to get sunlight, I want them to get sunlight for their eyes, it's going to help with their sleep, it'll help with their mood.

And I also want to alert your audience, Shawn, that all these interventions that we're doing helped a wide variety of autoimmune problems, a wide variety of metabolic problems, diabetes, heart failure, obesity, and they also helped with neurodegenerative problems; Parkinson's, Alzheimer's, even moderate Alzheimer's we've had people have remarkable success.

Shawn Stevenson: Wow.

Jade Harrell: Even with Alzheimer's.

Shawn Stevenson: Yes, I mean this is so important because we're talking about anything that's related to autoimmunity, she's been so successful at helping to reverse.

But another thing I want to point out really quickly before we move on, is with the sun exposure, again just be smart about it. Make sure you be smart about it.

Of course you can keep your skin covered a little bit, maybe wear a hat, but it's not a good idea to constantly pace yourself up with sunscreen where you're not absorbing and getting these vital nutrients.

Alright and then there's a little bit more natural things like coconut oil has like an SPF of like 4 or something. You know but- so just keep that in mind. Now let's go ahead and move on. I want to talk about the microbiome.

Terry Wahls: Yes.

Shawn Stevenson: How does the microbiome specifically play into this whole equation with MS?

Terry Wahls: Who knew our poop could be so vital?

Shawn Stevenson: Put that on a tee shirt.

Terry Wahls: I'm a pharmacist so I know poop well from a wide variety of species, it's pretty entertaining stuff. And the literature and the interest in what's going on in our poop just keeps growing.

We have more and more papers coming out that the microbiome that is the bacteria living in our bowels is different if you have an autoimmune problem versus being healthy in that we can even tell whose autoimmune disease is active, and whose autoimmune disease is quiet based on what's growing in their poop.

In fact I'm quite convinced that a large part of- when I look at one of the mechanisms by which the Wahls Protocol is restoring health, certainly one of those mechanisms is that we feed and nourish the health-promoting bacteria living in the person's bowels, and we starve out- because we get rid of the sugar and the processed foods, we're starving out the disease-promoting bacteria.

We need to think back, if you look back at the evolution of life when a billion years ago when the mitochondria evolved and were engulfed by larger bacteria, we became multicellular, and then eventually developed a gut.

At that moment in time, those ancient bacteria that were in those ancient seas came into the gut and have been living and evolving in the guts of all species since then. And we rely on those bacteria and viruses to help us eat the food that we're eating, eat each other's byproducts, make small molecules that diffuse into our bloodstream that will then go to our liver.

Now the liver sort of filters out the stuff that's harmful, it keeps the stuff that is helpful because we depend on a lot of those small molecules to make sure the chemistry of life is running properly. And many of these small molecules will go up into our brains, across the blood-brain barrier and influence mood, cognition, behaviors; we are just like stunned.

And some of our scientists are saying like, "Oh my God, the bacteria are manipulating our behaviors, our moods, our actions, and are we just sort of like a glorified bacterial transport unit?"

Which is sort of a funny entertaining vision for a sci-fi novel, yes but we certainly have a collaborative relationship with the bacteria that have evolved over these thousands and millions of generations over time that helped create a healthy robust disease-resistant body.

Shawn Stevenson: Wow.

Terry Wahls: So we started eating a lot of sugar and white flour, and quit eating all of our vegetables, and our good friends that we had depended on for all those thousands of generations are dying off, and they're being replaced with bacteria- a new species that are not health promoting, that are increased in people who have

autoimmune problems, and mental health problems, and dementia, and neurodegenerative problems like Parkinson's.

Shawn Stevenson: Yeah you know what this brought up for me, so many of us, this whole system, it's just amazingly complex and beautiful, but yet there's this simplicity to it.

There's this underlying order that governs the whole thing, and it's really a beautiful thing. You kind of stepped us through the evolutionary process of where we are, but it's still important to understand like we kind of are glorified-

Jade Harrell: Bacterial transport.

Shawn Stevenson: But then it made me think about the movie 'Men in Black,' and it's just like this little bitty teeny little alien that's like driving the human body around or whatever. But it's not like that, but you've got ten times more bacteria cells than you have human cells. At least. At least.

Terry Wahls: Yeah, at least.

Shawn Stevenson: And there's this really important symbiotic relationship, and you just said an important word, species. Right? There are all these species that we've evolved with, and we know today we have many that are endangered species of these bacteria that should be there, and also some are extinct.

So her book right here, and this is the actual 'Wahls Protocol Cookbook,' alright? Finally the follow-up to the bestselling book itself, 'The Wahls Protocol' has some of those specific meals, nutrients, foods that help support that microbiome, and it's all kind of layered in with this tasty goodness.

Terry Wahls: Yeah you know when I was teaching our folks in our Lifestyle Clinic, one of the things I learned is so many folks aren't cooking at home, they've forgotten how, don't know how, or they're pressed for money, or they're pressed for time, or they may be pressed for both.

And so we worked with our patients so I could help them figure out how to do this given their time constraints, given their money constraints, and we were very successful with helping people who are on disability, on fixed incomes, learning how to implement the protocol while still living on a very limited income.

And once I learned that I realized, 'Okay that is the next step. I need to take this message out to the public that yes, here is a blueprint you can use to begin to learn how to cook at home because if you're going to reclaim your health you've got to cook at home, and here's a way you can do it if you're still living on a disability income.'

Shawn Stevenson: Yeah I noticed that too, that many of the ingredients are very simple, easy to find, you don't got to order a lot of stuff. I felt that that was very really refreshing in the book.

Terry Wahls: Yeah, I wrote this with my chronically ill veterans in mind, what we did with them so they could succeed. I wanted people to be successful.

Shawn Stevenson: You know something that we touched on earlier that I think is really important for us to discuss is the stress component. Right? The vast majority of physician visits today are for stress-related illnesses.

Terry Wahls: Yeah.

Shawn Stevenson: So how does that play a part in this whole equation?

Terry Wahls: You know when I did the Lifestyle Clinic during the intake, we'd do a timeline of the person's health events. We do this as a group and we teach them to lay out all their symptoms from birth until now, and then we had them lay out their major stress events in the timeline, and nearly always we saw that it was a major stressful event that was the trigger that tipped them over into symptomatic disease.

I'd say 90% of the time, that was the case. The other 10% it was a toxic exposure that tipped them over. Occasionally it was an infection, but the vast majority is stress and it comes down to unresolved conflict at work, unresolved conflict at home, or money.

Those are the three big issues. Can't do much about money other than help people live within their means, but the unresolved conflict, we spent a fair amount of time talking about the price for unresolved conflict is wrecking your health.

Shawn Stevenson: Yeah.

Terry Wahls: And when you finally understand that, then more people are willing to take a deep breath and begin to address the unresolved conflict.

And part of that is you're going to have to forgive yourself, forgive the other person, and actually speak the truth about whatever that unresolved hurt is. And it's a tough thing, we spent some time role-playing those difficult conversations.

Shawn Stevenson: Yeah, you know a quote comes to mind from Nelson Mandela that, "Resentment is like drinking poison expecting for your enemy to die."

Terry Wahls: Oh that's a very, very good quote.

Shawn Stevenson: And many people carry around- we unknowingly sometimes because we don't want to look at it, this resentment, this underlying anger towards other people, and that anger is hurting us, it's not hurting the other person.

And so often we're waiting around for that person to get their act together so that you guys can be cool and resolve the issue, but chances are a lot of times it's not going to happen. And sometimes we're carrying resentment for people that aren't even around anymore.

They might not even be alive, so how are you going to have that conversation without getting out the Ouija Board or whatever, but not trying to get into that, alright? I saw that scary movie- I didn't see that movie though, but I saw the preview so no thank you.

But we really- it's still within our power, it's within our power to change that mental construct. To first of all, she just said it- like I said, I love you, but to forgive yourself.

Forgive yourself for carrying this and not realizing that I have the ability to change, and to let this go, and to adjust my attitude so that I can be free, and to be happy, and to serve my purpose here instead of wasting so much energy on the back burner, in the back of my psyche with this just anger and resentment towards whoever or whatever else.

And plus of course, we do have the option of there is some conflict resolution available. So maybe working with an expert on that, maybe just even having a heart-to-heart conversation with somebody that you care about. You know, there's a lot of different things here but the bottom line is this has to happen within yourself and within your own psyche.

Jade Harrell: Yes, that's where the meaning comes from. The meaning is what- so there's the event that happens, but we're the ones that put the meaning to it, that associate whether or not, 'Did he look at me like that?'

Shawn Stevenson: You did that today.

Jade Harrell: 'Or did he look at me like that?'

Shawn Stevenson: What's Shawn thinking? Does he want to tackle me or hug me?

Jade Harrell: Right, right. I wasn't so sure so we do- there's room in there for us.

Shawn Stevenson: Wonderfully said. So Dr. Wahls, this has been fascinating. I'm so glad that you tied in this stress component and how important that is because it's so overlooked when we're talking about recovering someone's health or what it could do to our health, and you also brought out those three specific things that work stress, relationship stress, and money.

You know money is making people sick, you know? As crazy as it sounds. And changing our relationship with these things, and how we perceive them is of the utmost importance, folks. So thank you for that.

I'd love if you could talk a little bit more about The Wahls Protocol in the fact that it's not just for people struggling with MS.

Terry Wahls: Sure.

Shawn Stevenson: But what are the other autoimmune conditions that you've been able to help? And should people that aren't dealing with an autoimmune condition look into this work as well?

Terry Wahls: So absolutely. Well first more and more of our diseases are being reclassified as autoimmune in nature.

Heart disease, probably autoimmune in nature. High blood pressure, probably autoimmune in nature. Many of our mental health diseases probably have an autoimmune component.

So my advice is that if you have a chronic health problem, reading 'The Wahls Protocol' and getting the cookbook would be very helpful tools.

Then we have conditions like a concussion. We've had great results helping people with concussions who've had residual mental health issues, irritability, poor school performance, chronic headaches, see all of that resolved following The Wahls Protocol.

And as mentioned earlier, we've had people with Parkinson's get much improved function, we've had people with memory problems, early cognitive impairment, even mild to moderate dementia, they have steady improvement in function.

And then I've had athletes contact me and tell me that their athletic performance has improved.

We've had people with cancer who have gotten my book and have had remarkable success. We have a very close family friend who had widely metastatic cancer with [Inaudible 00:50:19] in both lungs, thought unlikely to survive even six months who is now three years cancer-free, he's ridden the Register's Annual Great Bike Ride Across Iowa, and he used The Wahls Protocol as an integral part of his treatment plan.

And so he and his family certainly attribute what they learned from The Wahls Protocol as to- and so do his physicians by the way, as to a major part of why he's been so successful.

Shawn Stevenson: Definitely. I think this is something that every person who's serious about being the healthiest version of themselves, especially those who are in the healthcare field, need to have a copy of 'The Wahls Protocol' in your library for sure.

Terry Wahls: Yeah. Yeah you know absolutely, I think that would be a tremendous resources for clinicians to be aware of this because I've had so much demand for people wanting to see me, and I did not have a private practice.

We've created a training program for their clinicians who want to learn how to use The Wahls Protocol in their clinical practice, and we have a seminar for the public, and a clinician certifying program, and we have that information on my website.

So I'm hoping some of the clinicians who are listening to this will consider coming to the seminar and getting certified because we need more of you out there.

Shawn Stevenson: Yes, yes, love it. Thank you for extending that invitation.

Jade Harrell: And influencing them.

Shawn Stevenson: Yes, absolutely. Influencing influencers. So I've got a final question for you, Dr. Wahls.

Terry Wahls: Yes.

Shawn Stevenson: And I'm curious about what the model is that you're setting with the way that you're living your life personally, and tied in with that- I'm wondering because I've seen this many times with great healers, great physicians.

Would you go back and change the fact that you were stricken with multiple sclerosis?

Terry Wahls: Oh goodness, no. You know actually I think having progressive MS, becoming profoundly disabled, having horrific levels of pain, becoming bedridden or close to bedridden was a profound gift because I had to experience all of that in order to be willing to go through relearning basic science, reaching out and re-examining my thoughts about complementary and alternative medicine, diet and nutrition, and being willing to blow up everything that I knew and start all over.

So I had to experience all of this, and so I view this as a tremendous gift because it changed me as a person, it changed me as a parent, and it changed me as a physician and as a scientist.

So it had to happen exactly as it did, and you know my two children who were eight and five at the time that I was diagnosed, so by the time I was in a wheelchair they're

eleven and eight, and so this really changes how- you know because we can't go biking, and skiing, and do those kinds of things as a whole family unit anymore, and so it's hard for them- when I say I see having MS as this tremendous gift because it gave me so much, my kids feel like they lost a lot, and yet I also know that my kids gained a great deal because they had to have real chores, real responsibilities.

And they might have complained, "Oh that's not fair, I'm resenting that I have to do the laundry. My friends know nothing about laundry detergent," and I'm like, "Yeah it's not fair, but it's not fair that I have MS, and so this is your job. My job is to work as long as I can and we're just going to do the best we can without complaining, or you get more chores."

And so my kids learned that yes, life's not fair, but we do the best we can anyway. And so actually they were more mature than most of their peers, and they'll be very successful as adults because they got the message that life's not fair but we do the best we can, and they got the message that diet and lifestyle matter a whole lot for everything.

Shawn Stevenson: Wow. That- wow. I really- I receive that myself personally, it's such a powerful insight and perspective on the situation, and I have a very similar experience, in a great gift coming in the form of this apparently tragic thing.

And so thank you so much for sharing that, Dr. Wahls. Can you let everybody know where they can find 'The Wahls Protocol' and 'The Wahls Protocol Cookbook' and where they can connect with you online?

Terry Wahls: Okay so ideally go to your local bookstore and buy it there. If you can't buy it there then please go to my website, www.TerryWahls.com. We have links for you to pick up the book so do that. I'd get the original book and get the cookbook as well.

If you'd like to have more support we have memberships, we have menu programs, we'll have an e-Course coming in May, and then we have the in-person seminar in August.

So we have a variety of tools for you, and I want everyone to sign up for my newsletter list because we'll be announcing my private practice and what the options are to see me and have me be your physician. But you only hear about that through my email list.

Shawn Stevenson: What a gift! Awesome, awesome, thank you so much. Dr. Wahls, wow this is so enlightening and so refreshing to hear, and I'm just very- I don't know if I'm even in a position to say this, but I feel so proud of you and I feel that the work that you're doing- you could have just taken this for yourself, and gotten better, and just kind of moved on with your life as is, but you made it a mandate for you to share this in a big way and I'm just very grateful for you.

Terry Wahls: You know I'm grateful to have my life back, and I felt morally obligated to write this, put the books out there, write the cookbook and now to do the research and get the research going out.

Shawn Stevenson: Awesome. Well thank you so much for joining us today. Truly, truly do appreciate you.

Terry Wahls: Thank you so much.

Shawn Stevenson: Everybody, thank you so much for tuning into the show today. I hope that you got a lot of value out of this.

This is one that you must share with friends and family because whether it's yourself who has been dealing with an autoimmune condition, or friends and family member, the odds are that somebody that you know that's close to you is going to be experiencing one of these- this plethora of autoimmune conditions that we were talking about today, and now we're finding more and more research showing that things like even heart disease is related to autoimmunity.

So whether it's a thyroid condition, whether it's arthritis, whatever the case may be, The Wahls Protocol is essential stuff in helping to reverse the issue. She's got it laid out like very few people in the world can, plus adding in those small components of specific nutrients.

Like she talked about cholesterol in creating your myelin, guys. Like how powerful of an insight is that? That's valuable in and of itself.

So what are the ideal sources of that? How can it go wrong? What is the best way to go about doing that?

Those are the things you'll find in those books. So also I want to let you guys know that I'm going to be visiting some more cities in the upcoming months here, and I've had an amazing time connecting with everybody. D.C. was our most recent event.

Jade Harrell: It was wonderful, yes.

Shawn Stevenson: And what a powerhouse experience. But coming up next is going to be Austin. So Austin, make sure to be ready. You can head over to www.TheModelHealthShow.com/austin and you'll be able to find out the information about the event that we're going to be doing there.

Keep it on the low-low. Alright, keep it on the low-low. It's going to be really awesome, it's going to be at an amazing location that's a superstar place in Austin.

So make sure to come out and join me there. And we've got some more great guests coming up, I mean I can't even wait to share these episodes with you, it's going to be incredible, and also some really important show topics that are going to be big game changers, but one of the most important ones was today, and just understanding how the world is changing.

You know just in the last five years, again we're seeing a 10% increase globally in MS, and MS can be absolutely devastating. This put her into a wheelchair and was going to take away her life, literally end her life prematurely, but fortunately she turned this obstacle into a great gift, and this storm in her life became a great story.

So she turned that into something positive which we all can do because whether it's a health condition or some other kind of drama that's going on in your life, this storm you're going through, you can turn that into a powerful story that's going to be able to serve other people and help others in some form or fashion.

Whether it's your extended family, whether it's just kind of helping yourself and being able to overcome an obstacle and go to another level in your life, or maybe it's helping your community or something on a broader scale.

Whatever the case might be, you're here to share that, and a part of that is you figuring out a way to get through these barriers because these things- it's kind of like life's obstacle course, you know a little training ground for us to develop and express these amazing character traits that we have that are often dormant because we have not been faced with the things that need to be expressed, the things that we need to really draw those out.

So keep that in mind, and also I love that very simple saying that, 'This too shall pass.'

Jade Harrell: Right and hope can return to your life.

Shawn Stevenson: Yes, and use Dr. Wahls' story as inspiration because this is something that's real, this is now a world-renowned physician who's out doing this work, sharing this work, and changing what you're hearing in the media.

It's changing what you're seeing out there in the Interwebs as far as what's possible when people are being told there's nothing you can do about this. There is something that you can do, and this is a great example today.

So thank you so much for tuning into the show today, I appreciate you immensely. Make sure to stay tuned, lots of great stuff coming. I appreciate you so much, take care, have an amazing day, and I'll talk with you soon.

And make sure for more after the show, you head over to www.TheModelHealthShow.com, that's where you can find the show notes, and if

you've got any questions or comments, make sure to let me know. And please head over to iTunes and give us a five star rating, and let everybody know that our show is awesome.

Jade Harrell: Yeah.

Shawn Stevenson: And you're loving it.

Jade Harrell: Yeah.

Shawn Stevenson: And I read all the comments, so please leave me a comment there, and take care everybody. I promise to keep giving you more powerful, empowering, great content to help transform your life. Thanks for tuning in.