## Opening and Guest Introduction

Welcome everyone to the Gut Health and Longevity Summit. I am so glad you are here, and I want you to pause for a second, because today we are going to go somewhere we haven't gone yet this week.

We are going to go outside, past your plate and into your soul, your water and the ground you actually stand on. We built this summit because your gut doesn't exist in a vacuum.

It is in constant conversation with everything around you. And today's guest has spent her career proving that health of the land and water feeding you is inseparable from the health of the microbiome living inside you.

Today we're going to talk about soil, pesticides, water, and why reconnecting with nature. Maybe one of the most overlooked levers in gut health and longevity.

My next guest is known to hundreds of thousands of people as Doctor Outdoors. She spent 25 years as a physician and over a decade making the case that nature isn't a nice to have for your health.

It is medicine, and I could not agree more. DoctorMelissa Sundermann is a double board certified in internal medicine and lifestyle medicine with advanced integrative medicine training from the University of Michigan and mind body training in the center for Mind Body Medicine.

She is a founding chair of the Nature as Medicine Subcommittee for the American College of Lifestyle Medicine, and the Medical Director of Lifestyle Medicine for Cornell Health System, where she runs culinary medicine.

Shared medical appointments including cooking for health, which I love that cooking up a good a onesie and a new menopause SMA. She's also the chair of the Global Wellness Institute's A lifestyle medicine initiative, and her debut book, Doctors Outdoor Guide to Nature and Lifestyle Medicine blend science and story on healing through the natural world.

She's also, for fun, a 13 time Boston Marathon finisher and three times full Ironman finisher and currently training for her first ultramarathon and lives by the line.

Age is not your cage. Couldn't we agree more? So welcome so much, Dr. Sundermann I am so glad you're here and I'm looking forward to taking this conversation outside.

Absolutely. Thanks for having me. I'm excited to dig in. No pun intended. All right. So you're the physician who put nature as medicine on the map in the lifestyle medicine circles.

Before we get into soil and water, specifically ground us, what does the evidence actually show about the pathway from time outdoors to gut health and inflammation?

Wow. Well, yes. As you said, I am doctor outdoors. You may also know that. I mean, that's my medical degree. I'm a doctor. Osteopathic medicine. So it's just serendipitous that this has come to fruition.

So we know that stress is detrimental to our health, to our gut microbiome. We know that 70% of our immune system resides in the gut microbiome. And dating back to Earth studies done in Japan.

We know that spending time outdoors actually lowers our cortisol level, lowers our level of inflammation, lowers our heart rate, our blood pressure. It actually elevates and improves and optimizes our natural killer cells.

So we have these concrete biological mechanisms to show that hugging a tree is not just for, you know, hippies

and flower children. Actually, there's scientific evidence that spending time outdoors is good for us, both physically and mentally.

I would absolutely agree. I mean, I do retreats around the world, and one of the main things we do is we go out into nature. And I just remember last year at my longevity retreat, we went to the Azores and we went into this beautiful forest of like these tall trees and I mean moss so green.

I had never seen it. And literally we were in there to increase our natural killer cells.

## Nature, Stress, and Gut Health

And I know that they did some research back in during the time of the pandemic around sulfur springs and nature, and how individuals who had exposure to this had much better responses and improvement in their health when it came to their Covid exposure.

So, absolutely, I would say nature is medicine and we mean this literally, not just metaphorically. So let's go underground for a second. You said that human health starts with soil health.

So walk us through that chain. How does what's happening in the dirt actually end up shaping our gut microbiome? Right. So when we think about our plants, if you go to your garden and you see the end product, you see your tomato, you see your beautiful cucumber, you say that it just came out of the dirt.

It just appeared from the dirt after I put that seed in there. But actually healthy soil is very complex and it's actually a living organisms. So just when you scoop up that soul that's going to contain Tyrian fungi and protozoa and so many other other organisms, and also there's to be plant roots.

There's going to be minerals, water, air and decomposing organic matter. So this is very complex. And this community of organisms proportions a lot of essential functions.

Right. So it helps break down organic material cycle nutrients. It supports the plant roots. It retains water. It contains the soil structure and protects plants from certain pathogens.

So these fungi for example have these complex relationships. We call it like the the you know, wood wide web, right. So they're all communicating. And soil actually has its own microbiome.

And yes, the soil microbiome and the human gut microbiome are not exactly the same, but they both are dependent upon this diversity. Right. So having balance resilience and diversity and social actually affects, you know, how the food that we eat and plants do not create nutrients in isolation right.

They depend on salt, sunlight water microorganisms and farming practices. So we know that our soil health can affect the ability of plants to access nutrients.

It affects water retention and drought resistance. It is plant resistance to disease, agricultural productivity, erosion and runoff. So the soil does a lot as a big job.

And so what we do hear about now, and some people will advocate that we in certain situations need to take supplements. That's because modern agricultural practices have reduced the nutrient density of certain foods.

And in my in our Nature as Medicine subcommittee for American College of Lifestyle Medicine, we actually had Gladys Zanetti, who is one of the head researchers for the Rodale Institute.

And it's just fascinating to learn what they're doing at Rodale about looking at soil nutrient density. So unfortunately, through certain practices, we are seeing a decline in the cult of the soil, right.

So there are some ways that we can rotate crops that we can, you know, affect the growing conditions and the

tilling to protect that and optimize that soil nutrition, as we could say, of the health of it.

So really there is this soil planet gut connection and this microbiome access. So we know that the soil micro organisms can influence plant health and compounds that produce them.

And then when we have this, you know, healthy soil on the plants, these plants will provide us with the fiber, with the resistance starches, with the polyphenols, with the vitamins and so many other bioactive compounds.

We know that when the plants that we ingest contain fiber. And I know you've been talking about the gut microbiome throughout the summit, is that that fiber, when that's ingested as a prebiotic that produces a short chain fatty acids, right.

So we have appropriate butyrate, acetate, and those are messengers that go all over our body to help heal and protect and optimize. So a lot of things going on, right.

Some of the short term fatty acids, the polyphenols. And really it's about plant diversity. Just like our soil is a diverse microbiome, our gut microbiome.

Love that plant diversity. And what Bullseye Woods will say, and many others will say, is that trying to get that 30 different plant variety per week, it's really about maybe not the number of servings, but that diversity to increase and optimize our gut microbiome.

## Soil Health and the Microbiome

Absolutely. And we do have a 30 plant, 70 recipe book for the viewers, which if they haven't downloaded, they can grab that. But I would totally agree with you because I think because our nutrient supply and diversity of our food has decreased, that has also influenced the microbiome diversity, which is absolutely important to keep inflammation and chronic disease down.

And it's we're not very intentional about getting that variety when we do choose foods. And I know my mom, who's a gardener, she has a very flourishing garden in Pennsylvania and a number of different varieties of food.

She grows out there, you know, fruits and vegetables and all this. And many people don't even know how certain foods grow that they commonly eat. Like, I'm a big okra fan.

I know a lot of people don't like okra because it's slimy, but I love it. And the way okra grows is it grows up like this on a plant, right? So it's upside down. Same thing.

Asparagus. A lot of people like asparagus. How does that grow? So we don't really you know, we're so used to going to the grocery store and just picking up our usual, like, apples and bananas and carrots and potatoes without knowing that there's this whole, you know, host of foods that have phytonutrients and all these ingredients in there.

So that in itself has decreased over the last 70 years because of industrialized farm crops. But one of the most fear driving topics in nutrition right now is pesticides.

And so can you share with us what does the actual evidence say and how do we talk about exposure? Honestly, without scaring people away from fruits and vegetables, which we know are so beneficial for them?

Absolutely. And, you know, I think that so often, especially with everything that's scrolling on TikTok and Instagram, people get into the weeds again, another pun intended there.

So and pesticides comes up a lot. And we know that pesticides I mean they were created to do some benefit, right, to manage insects and weeds and fungi and other organisms that can damage crops.

And they can also improve agricultural productivity and reduce crop losses. However, there's a detrimental effect

to them because they're biologically active.

And so what we find is that there seems to be two extremes. People who say pesticides are good. We can, you know, it's going to we're going to be able to produce these, you know, crops, you know, at a lot of them.

And we're going to it's good for the farmers to be able to not have a lot of losses. And then the other extreme, it's like, oh my gosh, if you can't eat organic you'll bother, right?

So that any kind of pesticide is bad. So I think it's really looking at the difference between hazard and risk. Right. So a hazard is the potentially of something to cause a risk to cause harm.

So hazard potential to cause harm. And then risk actually considers the likelihood of harm at a specific exposure level. Right. So we we think about sunlight.

So we know that ultra UV light can damage skin. So that's a hazard. But the actual risk depends on the intensity. Like are you at you know on the beach just or for me I'm a big skier.

So my on top of the mountain at altitude with the sun reflecting from the snow. The duration. How long are you out there? What time of day, what kind of skin type?

I'm, you know, fair skin, blond hair. So I have a higher risk of skin burn. And are you using any kind of protection? Do you have clothing to cover it?

So I think we need to differentiate between something that's hazardous and what's the actual risk. So when we look at pesticides rather than just, you know, just a blanket statement, you know, all are horrible.

We want to know, like, you know, which pesticide was detected, how much was present, how toxic is that particular chemical? How frequently are you actually consuming that food?

Is the exposure coming from multiple sources. So are you consuming something or are you are you working on a farm that uses a lot of pesticides? You live close to an agricultural facility or is the person getting exposed in a vulnerable population so very, very young, very, very old or immunocompromised.

So those are important nuances to know. So that really means that just because a pesticide is detectable, it doesn't automatically mean it's dangerous.

And that, you know, all pesticides are not equal. People who are farm workers are their pesticide applicators and their families or people living near these facilities are likely at a higher risk of direct exposure.

Right. So then we get the conversation of organic or not. So, you know, the questions are, does eating organic food actually reduce exposure to certain pesticide residues.

And many, many studies it says yes. Second question is has eating organic food been conclusively shown to prevent chronic disease or extend life? And I'm going to say that's a little less certain, right.

So when you look at the studies of people who are consuming organic food, there's probably some confounders there, because likely individuals who are consuming all organic food are probably at a different socioeconomic level.

They may also be healthier in general, which means they may be more they be maybe have a higher percentage of nonsmokers. They may have higher incomes, are already eating more plants.

So it's really difficult to tease that out. And remember that organic does not necessarily mean free. So just because it says organic, they could be using some pesticides that are approved pesticides and natural, it doesn't automatically mean mean nontoxic.

So just to know about that. And so then the question is, you know do the pesticides if you are consuming produce that has been with pesticides, is that going to affect the gut microbiome.

And, you know, there are studies that suggest that certain pesticides may influence the gut microbiome composition, you know, in a detrimental way. And again, taking about the hazard and the risk.

So I think a practical strategy is to reduce exposure without increasing anxiety. And how do you go about doing that? Try to eat a wide variety of foods so that the exposure is not concentrated in one repeatedly consumed item, right.

Always wash your produce thoroughly under running water and you know, rob your firm produce or use like a clean produce brush. Remove damaged areas and discard outer leaves when appropriate.

Wash produce before cutting or peeling it, and try to avoid using soap, detergent or bullets. It's not going to be good, and if you are consuming more produce on a more regular basis, if you are in the position, try to choose those as being organic.

And of course, if you have a home garden, growing food at home, purchase some of your fresh produce from local farm markets where you can actually talk to the farmers who are growing the food.

And if you are in a profession that has occupational exposure to pesticides, just being aware of that and trying to mitigate any additional risk. Absolutely.

So I do believe that the actual public health risk of eating too few fruits and vegetables really outweighs the the residue risk for most. For most people.

One of the things I write about in my book, The Anatomy of Well-Being, is how are different ways that you can clean food like so I will often do depending on the food like baking soda and water rents or white vinegar rents, you know, so there are like a few.

And you don't need to go buy those expensive sprays or anything like that. Just like some basic household items can really be helpful. But let's talk about for people who can't buy everything organic, how should individuals use, you know, some of the tools that are available for us that, for example, the Environmental Working Group has put together the clean 15 and the Dirty Dozen, which you know, is available every year.

How should individuals be utilizing these lists, like from a, you know, if they're on a budget, what is practical? What's the nuances? Yeah. And I want to circle back to what you said.

I see patients several days a week. The medical director of lifestyle medicine for the largest health care system in Michigan. And I'm seeing patients in a lifestyle medicine capacity.

And so I'm taking a deep dive into those pillars of lifestyle medicine. And we talk about nutrition. Most the majority of the patients they see are under consuming fruits, vegetables, beans, whole grains, nuts and seeds. Right.

Not getting appropriate amount of fiber.

## Pesticides, Organic Food, and Produce Safety

And so we really want to encourage them to increase consumption of these foods that nurture or gut microbiome. So I totally agree with you. So going back to you just reminded me of something that.

So I have an assistant who sometimes works with me and we'll be doing like meal prep and stuff together, and then I'll be like, even though the vegetables are, did you wash them?

She's like, I didn't know you were supposed to wash like the carrots and the lettuce. And I'm like, and this is a

young person in their 20s. And I'm like, so I think some of the things that we think about food, it really comes from what you actually know.

And you've seen your family maybe do like maybe, you know, your parents didn't cook. So you don't know that when you buy food from the grocery store, that what needs to be washed, what needs to be in a certain way.

So and I think people come from different levels of that. You know, some people grew up on frozen dinners. You know, I remember I had a patient who she was in her 60s and, you know, we started getting her to eat dark leafy greens and salads and stuff.

And she came back to me. She said, doctor B, it took me three hours to prep this salad. And I'm like, darling, what were you doing? And she was like, well, I had to wash all the leaves, and then I had to put them all out to dry.

And and I'm like, okay, we don't need to make health that complicated. But I just had a woman just this week and we were talking about whole grains. And I said, why don't we get to, to to do that instead of white rice with quinoa?

Because it's got fiber and protein. She's like, I don't know about that. That sounds really complicated to to cook. And I said, well, do you know how to boil water?

She said, yeah. I said, okay, then you could cook keema, right? So it's just, you know, experience. Right. And just makes is why we love doing cooking classes, right?

Like I'm like, I'll do stuff and I'll be like, look guys, how simple this was. Absolutely. So circling back to that environmental working group that you're right, they come out every year with their clean 15 and their dirty dozen.

So just to review what they came out for 2026. So dirty dozen. So it sounds just so negative. Right. So these are the foods that could be at higher risk of absorbing those pesticides okay.

So what they've listed for the 12 Dirty Dozen for this year are spinach. And then kale collard greens mustard greens strawberries grapes nectarines teaches cherries apples blackberries hares potatoes and blueberries.

Okay, so not that. I mean, come on. These are all great things. So, you know, dirty doesn't I mean, we want people to consume these. So these are just going to be things that are higher risk.

And if you think about it, these are things that don't have skin that you peel or just like strawberries. They've got those pits where, you know, the pesticides can, can kind of get caught in so clean.

15 these are going to be the lower risk things. These are the things that you could maybe or not. Maybe that you could feel safer buying conventional non-organic.

So pineapple that makes sense. Or not eating that core on the outside. Sweet corn. Avocados, papaya. Onions. Frozen sweet peas. Spaghetti. Cabbage. Cauliflower. Watermelon.

Mangoes. Bananas, carrots and kiwi. Right. So and again I have a variety. There's a wide range of patients who are from different ethnic backgrounds, different ages, different socioeconomic.

And my goal is to get more fruits and vegetables and whole grains in. Now let's talk about obstacles. And, you know, getting the the clean 15. You can get those anywhere. Right.

And then those that dirty dozen. I'd really rather have you eat those rather than not eating them. And like you said, washing them with water, with baking soda, with the the white vinegar.

Using a brush grows in fruits and vegetables can be a great, great tool. And I have a lot of patients who maybe live alone, or they're an empty nester and they're cooking, you know, they buy produce.

And like, I just don't even want to get fresh produce because I spend a lot of money to do it. And then I'm just one person and it goes bad. And so I said, that's where frozen is excellent as well.

And they're like, well, it's not as nutritious. I was like, actually, it's really nutritious because they picked those fruits and vegetables when they're ripe and then they're flash frozen and, you know, poof.

And so when we're making smoothies and things like that, that's where a lot of these can come in handy. And we talk about, you know, places like Aldi and Trader Joe's where these can be lower price.

Like we don't always have to go to Whole Foods in these fancy grocery store to get all of our produce. So I would rather have people just eating and consuming fruits and vegetables.

We know that the average American is fiber deficient. You know, 95% of the patients I see are fiber deficient. Average consumption of fiber in the US is, what, 15, maybe 18g?

Where really our gut microbiome wants 35, 40 plus grams. So I really don't want this to be an all or nothing. So I think, you know, just some thoughtful choices for, you know, key points is that to buy organic selectively rather than universally.

Right. So if you're going to buy organic, maybe going towards more those dirty dozen of the produce that you're eating or your family tends to eat most often.

And so prioritize those foods that you eat most frequently and always, you know, compare prices with organic. Because sometimes at certain grocery stores, organic versions are going to be similar price if it's in season, like, you know, berries are in season right now.

So organic versus conventional are going to be very similar price again, using those frozen fruits and vegetables and then beans, you know, you can do canned beans.

Look for low sodium. Always rinse them off to get that excess sodium. It also can reduce the gas production as well by seasonal produce because the prices are going to be cheaper and so perhaps more affordable in the organic and try to grow some at home, right?

Having your own fresh produce and shopping at farmer's markets, talking to to the people who are growing the food. Absolutely. I've got sprouts growing right now on my window sill waiting to see them just pop out.

I see them brewing. There are so like it's so fun. You're like nurturing these babies, right? And they grow. So I've also got guavas growing like a bunch of. Oh.

Guava tree. Wow. Yeah. That's cool. Talk about you don't know how certain foods are grown. I was in Africa running a retreat last year. And jackfruit, like, I see jackfruit, you know, at the grocery store, and I love jackfruit.

And you had finished, you know, walking around and one of our guys was like, hey, do you want to have some jackfruit? We're like, yeah. It's like, okay, let me just, you know, way up on the tree.

Those things are huge. And you're like, how does that brand support huge? So he just, you know, took his ax, it landed. And so it was very fresh. So it was sweet, right.

We know that when it can either be very sweet jackfruit when it's young, but then it's also going to be very savory. So I was just now I want Jack. Oh I love jackfruit.

And it was just my gosh to see it come down from the tree was great. All right well next question. What are your gets almost no airtime when it comes to gut conversations compared to food.

What should people actually know about what is in their drinking water, and how do they decide if they need to test

or filter it? Yeah. So water we know.

And as doctor outdoors we talk about blue spaces all the time. And we are a there's our fluid component for our own bodies is a very large percentage.

So we know it's water is essential for circulation, for temperature regulation, for our digestion, for kidney function, virtually every biological process.

So when we talk about water, a lot of patients will come to me and be like, what filter should I buy? Tell me which filter. So I want to flip that and say, actually, the first question that you should be aware of is where's my water come from?

What's actually in it? So are you getting water from a public system or do you have a private well, so where I live, I live in the woods. It's beautiful.

It's on two acres. We move from like in a city. So when we bought this house, we found out, oh, you've got your own. Well, we're like, well, never had that before.

So we, you know, we were required for the inspection to get it tested. But I'm so happy we did. So you really want to know where your water is coming from first off.

So if you're getting water from a public system, the utility is actually required to provide an annual consumer confidence report. So you have access to that. You just have to ask for that.

So that report is going to describe the source of the water, the regulator, the regulated contaminants that were tested. It will have to release detected concentrations and how those concentrations compare with regulatory standards and any violations or required corrective action.

So you have full access to that. You just have to ask and you usually can find the report if you are on a city well city water through the utility website, they have to do a report for that.

So that's what you want to know. And then if you're getting water from a private well like myself you it's at the landowners of the homeowners sort of discretion.

We were required to do it when we when we moved in. But it's your responsibility to do that. And actually ideally you should be checking that annually for coliform bacteria and nitrates.

And then if there's any kind of regional conditions, if there's been floods, if you've had, well, repairs, if you notice a change in taste, odor or appearance, if there's been nearby construction or perhaps a chemical spill, or maybe you're newly pregnant, or there's a young infant that's new in the home, or suddenly people in your family living at home or getting like some GI symptoms.

Or if there's like a change in land use near the property. So the important contaminants that you want to be aware of, first and foremost, lead. Right?

I live in Michigan, so I don't know if you remember, there was the big whistleblower, the pediatrician, the heroine who found out that there was lead in the water in Flint and was the whistleblower.

So that, you know, is very important to know if there could be lead and this will be at higher risk if there's older service lines or older plumbing, older fixtures.

And we know that there's no safe level of lead exposure. And it's difficult because lead, you don't taste it, you don't see it, you can't smell it. So it's really important to be testing for that.

## Water Quality and Filtration

Just good rules of thumb. You always want to have cold water for drinking and cooking. You want to get that stagnant water out and flush that, you know, clean your faucet aerators once in a while.

And if you need to, we'll talk about some filters also to be aware of PFAS. So these are large, you know, large family of persistent chemicals used in many industrial and consumer applications.

So if you're, you know, near landfills, manufacturing plants, firefighting foam can have PFAS. So and important to know that not every filter is going to remove PFAS.

Also you can have nitrate contamination. This is going to be really more prevalent in agricultural areas. And you'll notice that more in private wells.

And then always testing for microorganisms like bacteria, parasites and viruses. And this is again going to be more of a concern. And private wells I'm after flooding.

Or if there's been a failure in the public water system we hear about that. Right? So like, hey, there's been a failure. The water systems down, you're going to want to use bottled water.

So filtration. So you want to understand the contaminant that you're at risk of first before you're deciding if a filter is necessary and what type of filter.

So a couple different different types of filtration systems. So we have activated carbon filters. And this may help to improve the taste and odor and could reduce chlorine and certain organic compounds.

Some certified products will reduce lead and specific PFAS compounds. But there's you know in varies as far as performance. So don't automatically assume that your standard refrigerator or your picture that has that filter is going to remove every health related contaminant.

So then we move up to reverse osmosis. So that can reduce a broader range of dissolved contaminants. And it's going to cost more right. And could potentially waste more water.

But and then also could remove some minerals along that are good for us with the unwanted substances. But that's going to be a step further. Step up is going to be like a whole house filtration.

And that might be useful when the contaminant actually affects bathing inhalation or every household tap. So that's kind of the different layers as you want to go up from just the simple carbon activated carbon up to reverse osmosis up to whole house.

And so what's really important is that you want to look at the certification, the certification of your water filter. So there's these like standard 42, standard 53, standard 58.

So you really want to check what kind of certification is related to that water filter. So again I think the rather than saying what filter do I need, find out what your water actually contains and where your water is coming from.

So decision pathway like identify whether you use public water or private well. Review that utility report. If it's from public water. Assess whether your own internal plumbing could be an additional risk.

Like we live in a very old home. So again our plumbing is old. So we need to to be worried about that. Identify if there is what that contaminant is. Choose this water filter that's certified for that contaminant.

Make sure you install it and maintain it correctly and then retest on a regular basis. Absolutely. I will say one of the things that I use with my patients is I do like the environmental working Group tap tap water database, which allows you to put in your zip code.

And from your zip code you can determine what you're on. And they already do a lot of the testing so you can see

what the exposures are. And then the beautiful part of it is depending on what those exposures are, it also guides you to go, all right.

Is a carbon filter enough. Do I need reverse osmosis based off your location? Now I know personally in my house I have a whole house filter. Plus I have a reverse osmosis.

Yeah, but yeah, because water is absolutely essential for cellular health and cloud water. Yeah. Next question for you. You spent your career helping patients rebuild health through lifestyle medicine.

Can you share with us a about a patient without breaking any privacy where reconnecting with food, soil, the outdoors was actually a turning point in their health journey?

Yeah. Oh so many, so many wonderful stories. And with my job role currently in lifestyle medicine, we are so blessed to not only have a robust lifestyle medicine program which has physicians, nurse practitioners, dietitians, health coaches.

We have a wonderful culinary medicine program with a robust teaching kitchen. It is beautiful. I've been speaking to groups the past couple days, and in my slide deck I have a picture of her teaching kitchen, and I swear every single time I put up that slide, people are like, oh my gosh, I want.

I love that because I'm trained in culinary medicine. So I'd love to come out to your kitchen and check it out. Oh, we would love to have you. So I think that when people, like you said, you go to the grocery store, you know, you're so disconnected from the food, right?

It's wrapped up, it's in a can, it's in a bag. And you just don't even think about where that food came from, how we're connected. And as doctor outdoors, one of my things that I am always communicating is if you if you look at the word nature spelled NATURE, you'll notice the letters you and r.

And so what I say is that you are nature and bringing people back to that, like we as humans are nature. And the more that we can have that biophilia.

Biophilia is the innate connection of all living creatures. So we are connected to everything that is living, right? So we're connected to the the earth.

We're connected to all of our plants. We're connected to all the animals. This is this one health concept. So I think that bringing that up to people, that the food that is grown from the earth, like we all stem from, you know, carbon and we're connected.

So we bring our patients into the kitchen. We actually do something called shared medical appointments. So we build these two insurance and we bring people together and we'll bring them into our teaching kitchen.

Usually we'll start off with a talk. So maybe it could be, you know, eating closer to the earth. Or it could be how to cook with healthy fats or how to cook with natural sugars.

And so they they learn some didactic components, some the what and the why. And then we shift a couple feet over and we're actually in the teaching kitchen with our chefs.

And so whatever we've talked about, we put it into practice and we're teaching skills. So just like you said, like some people didn't grow up learning how to cook, you know, frozen food and processed foods and bagged foods.

It was just something quick, easy, you know, going through the drive through. So no fault, no shame or anything like that. It's just that, wow, you're never too young to learn, never too old to to change.

Right? So wherever you are on this trajectory of life, we can always be curious and always learn. So they learn skills and then we're trying from a lot of people new things.

Right. So we love to try tofu or tempeh for the first time, because that seems to be one of those things that people are like, oh, you know, it's very polarized.

## Lifestyle Medicine and Patient Transformation

The number of cooking classes I have done with tofu because I love tofu. Yeah, it takes time. Yeah, I agree, I agree more tofu just has a bad rap of being a sponge, right.

This is like and so really getting people to connect with each other and learning together, just that community support I'm a big advocate of that, that connectedness pillar because that does mean connection to the to the earth and the environment, but connection to others and social support and learning new skills.

And so as we brought in that conversation of, you know, do you know what your food came from? Well, yeah, I came from the grocery store. Where? Well, I came from five well no no no, no, no where to come.

Well I don't know. Someone delivered in a truck. Well where did it come from? There. I guess someone grew it. Yeah. So where did that come? Came from the earth.

Okay. Like, this is like, what? Do you go outdoors? Do you grow? You know anything? Do you have your own garden? Well, no, I live, you know, in an apartment.

Well, you could. Do you have a deck or a window? Yeah. And just like you said, with your microgreens. With your sprouts, like, do you have, you know, just an area, a shop that you could grow something.

So getting more people to do this. And so talking about patients like this is, I think one breaking it down like we always say, meeting people were there at or just 1% better.

And a lot of the patients I see, they spend a lot of time indoors. Right. So the EPA did a study several years ago, and the average American spends 93% of their day indoors, whether that's at their homes or workplaces, public transportation, only a 7% of the time is spent outdoors.

So first step is can you get outdoors? You know, can you step outside for 20 minutes a day? We know that being outside in the early morning with early morning sunlight exposure, circadian rhythms, eating according to our circadian rhythm, being outdoors with natural light, how that optimizes our melatonin secretion.

Our cortisol elevates our serotonin. So getting people to be knowledgeable about getting them to step outside, getting them to be curious about where their food came from, appreciating that.

Right. And so I have some patients that I've gotten them to connect with themselves outdoors. I think that, you know, I grew up in the 70s, a long time ago, and my sense and I know that as children, we are connected to the earth.

We know this instinctively. Right? When I was growing up, I just wanted to climb trees. I wanted to dig in the dirt, dig holes, and find worms and other creatures that were living below the surface.

Turn over a log and see what was under there. Pick up, you know, catch fireflies, pick up caterpillars. We were just curious because we knew that we were connected and we could learn from each other.

And as we get older, we get away from that, right? We get busy lives, we get technology, which is good, but we get so disconnected from our origins of you, our nature, and that our DNA is is actually tied to nature.

So I think that getting people to step outside, getting people to maybe take one of our shared medical appointments, of learning how to cook with Whole Foods, encouraging them, hey, you can actually maybe try to grow this on your own.

I think when we educate our patients about, you know, eating healthier to lower their a onesie, the lowering their lipids like that sounds great for us as physicians, but I'm not so certain that really translates to completely motivating our patients to change.

But if we say you're going to feel better, you want to sleep better. Yeah, I want to sleep better. More energy. Yeah. Do you want to like your body to ache less?

And I know you're having some conversations in the summer to about reducing inflammation with plants. Those are the things that people want to feel and that's what they hear.

So that's the language that I use.

## Practical Takeaways for Gut and Longevity

You want to pick up a new skill and learn how to cook, try new foods, meet, make new friends, just feel like a kid again and get outdoors. So lots of patients who we've taken just small baby steps 1% better and it works perfect.

I agree, it definitely works. So last question and I want to be concrete somebody watching this and wants to start shifting their gut and their longevity trajectory through their environment and not just their plate.

What is the one thing they should do this week? And let's be concrete, what is the one thing I'm just going to say? First and foremost, do not let perfect be the enemy of good, okay?

What do I mean by that? I just like this whole summit is said is eat more plants, right? Doesn't have to be organic, right? Don't be freaked out about pesticides all the time.

Don't be like, freaked out of what filter you're going to have to use. Don't be scared of oxalates. Yeah, I have to add that one. I tastes oxalates and fights and lectins, right?

Just the more plants, the more whole foods eat the rainbow. As I say, not Eminem's and Skittles eat the rainbow. There's there's so much good that we can do.

Think of abundance rather than restriction, right? Yes. More plants. All right. Thank you so much, Doctor Sundermann for this has genuinely been refreshing.

You've made the case that the gut health doesn't start at the grocery store. It actually starts in the ground and in the water long before that. So thank you for bringing us outside today.

Doctor Sundermann can be found at the Doctor outdoors.com on Instagram and a YouTube at the Doctor's Outdoors. And then her book of course. Here is the key takeaway for this episode.

The health of your gut is downstream of the health of the soil and your water. Take care of the ground under your feet and it'll take care of you back.

So stay tuned for another episode and don't go anywhere else. Thank you, thank you.