Transcript: #452 Why Probiotics Don't Work and The Top 8 Tips to Repair Your Microbiome with Spencer Feldman

Dr. Wendy Myers: Hello, everyone. How are you doing? I'm Dr. Wendy Myers of myersdetox.com. On this podcast, we talk about everything related to heavy metal and chemical detox and anything related to your health that I find really compelling or interesting. We talk about a lot of biohacking on this show.

Really for me, my goal is to help you to feel good. That's why you're listening to this show. That's why you want to do different protocols and take supplements. Your goal is to feel good. I know that alludes to so many of you. So, that's why I do this podcast to help you to get the information you need. Even if one show gives you that little piece of information, you need to make a huge difference. That's why I do this show. Thank you so much for tuning in today.

We have Spencer Feldman on the show. He's been on many times. He's a great guest. I love him because I can just sit back and relax. He's so brilliant. Again, we have another brilliant show. We're going to be talking about why probiotics don't work that well. Spencer's top eight tips to repair your microbiome.

This is full of amazing information and amazing tips. You want to listen to this, even if you don't have gut issues or whatnot. The information in this show can dramatically improve your health, so pay attention.

Today we're going to be talking about, let's see the top five things that damage your gut. We'll talk about why your appendix has a backup copy of your gut microbiome. Trust me, you need your appendix. You do not want to be removing that lightly like you don't need it, as some doctors will tell you. We'll talk about how some broad-spectrum antibiotics can wipe out 50% of your gut bacteria, devastating your health and your immunity.

We'll talk about Spencer's top eight tips to repair your gut microbiome and how to fix your gut if you have SIBO, which is small intestinal bowel overgrowth, a lot of good tips there. We'll also talk about what gut putrefaction is and why this happens. We'll talk about how you can repopulate your gut microbiome in 12 hours. Really interesting info.

I know you guys listening to the show are concerned about detoxification. You are concerned about the heavy metal load in your body. That's why I created a quiz called heavymetalsquiz.com to help you determine your body's relative level of toxins. It's a super quick quiz you can take, and you get your results afterward. Then you also get a video series that answers all your most frequently asked questions about detoxification. How long does it take? What's the best way to go about it? What if I've tried detox and it doesn't work, or I just don't feel well afterward? We talk about the best supplements for detox and the best testing for detoxification. Check that out if you want to learn more at heavymetalsquiz.com.

Our guest today, Spencer Feldman, he's multiple patent-holding inventors with more than 20 years of experience formulating and manufacturing detoxification products for doctors and their patients. His trail-blazing use of suppositories to deliver ingredients that would otherwise require intravenous therapy has changed the way many doctors do detoxification.

He is the owner and formulator of the Remedylink brand of products. Now in his fifties, he lives with his partner completely off the grid on his 100-acre farm, where he spends his time tending his orchard and garden while continuing to design new products to help detoxify people in our evermore toxic world. You can learn more about Spencer and his work at remedylink.com.
Spencer, thanks so much for coming to the show.

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Spencer Feldman: Thanks for having me, Wendy.

Dr. Wendy Myers: Why don't we tell the audience about yourself, your background, and your kind of focus on detoxification?

Spencer Feldman: Sure. Like many alternative practitioners, I started out not being healthy and not getting great answers from the doctors that I was going to. Sort of began this journey of trying to figure out what I could do to get healthier. I found that I really enjoyed figuring out how human bodies got to a point where they couldn't fix themselves and what they needed to do to get past that point and start repairing.

So, for the last 25 years, I've been making detox products. Kind of branched out from there. Started realizing that with detox came a lot of other issues. If people were toxic, they ended up having chronic fatigue. They ended up getting chronic

infections. They ended up aging in a not very graceful manner. From that, as my entry point, I jumped into the whole functional alternative medical field, and I've been making products and equipment ever since.

Dr. Wendy Myers: Great. So we're going to talk about the microbiome today, which is super, super important. A lot of people have gut issues. It's the number one problem that people have. There's a lot of confusion around it. How do you feel about the gut? Do probiotics work? We'll address a lot of different questions of that nature. But the first one is, where does the microbiome come from? How was that formed, and how many gut bugs do we have in our gut? What's going on there?

Spencer Feldman: It was believed that we were relatively stable except for the mouth and the gut. It turns out we're completely colonized. The microbiome isn't just the gut. The microbiome represents or is preferred to as this dynamic living organization of mostly bacteria, but also bacteria phages and viruses and fungi, and I have someone's unlucky certain parasites that all work together sometimes, hopefully for our health and sometimes not.

They colonized our intestines. From the mouth all the way down to the rectum, the entire area is colonized with more and more bacteria the farther down you go. Although there's quite a bit in the gum line. But from the esophagus down, you have more and more bacteria as you go down.

We ended up, along with all other animals, getting a symbiotic relationship with bacteria and bacteriophages that would colonize our gut. They would eat things that we couldn't eat. For example, in the early human experience, we've been around, based on archeological studies, for about 800,000 years. We've mostly been eating tubers and insects and fruit, seafood, wild game, nuts, seaweed, and honey if you're lucky.

What happens is there are parts of these foods that we don't digest. They're called oligosaccharides, a kind of sugar. You could grossly categorize sugars into three categories. You could say they're the simple ones, like fruit sugar, that you digest really quickly. Then there are the complex ones like carbohydrates from grains and beans that you digest. It just takes a little more time, but you have the enzymes to do it. Then there is this class of sugars called oligosaccharides that fall right in between the two in terms of size. We don't have the ability to digest them. We don't really have the enzymes for them, but bacteria do, so as animals are eating plants and other animals, they're ingesting these oligosaccharides that they can't eat. Then the bacteria get in their gut, and the bacteria can't eat them.

Then over hundreds of thousands and millions of years, we symbiotically evolve with these bacteria living inside of us because they want what's good for us. The longer and healthier we live, the longer they get to spend inside of our gut being fed oligosaccharides in a dark, warm, moist, low oxygen environment, which is

exactly what they want. It's in the bacteria's best interest to keep us healthy, reproducing, and living for a long time.

The microbiome is the evolution of this symbiotic relationship we have with all of these life forms living in our gut, where they want what's best for us. They will go out of their way and have the programming to help us in a great deal. I'll explain to you what exactly they do. But it's not just the gut. They actually colonize the entire body. There's a microbiome in the brain, the liver, and the lungs. There's no part of the body that doesn't have some microbiome in it. The microbiome central, the one that runs the whole show and gives marching orders, is in the colon. That's the one that I mostly want to address right now.

Dr. Wendy Myers: I've read that there are a hundred trillion bacteria in our bodies. I mean, there are more bacteria cells than human cells.

Spencer Feldman: Yeah, if you add red blood cells, it's about equal. About equal human cells to bacterial cells. That's not even counting the viral cells that are living with the bacteria. Kind of think of it this way. If you ask someone to draw a picture of a tree, they'll draw the trunk, branches, and leaves, but that's half the tree. The other half is the roots and the bacteria living on the roots.

We don't draw it because we don't see it. So we don't think about it. But if you go to an orchard and there's a tree that's being parasitized, or it's got wilting leaves, or something's wrong with the tree, the good orchardist doesn't just look at the leaf. He looks at the root and wonders, "Well, what nourishment is that root not getting so that it can't provide healthy leaves that can resist disease?"

The microbiome is the root of our biological or metabolic tree. To give you a sense of some numbers, the microbiome makes something like 500,000 different metabolites, representing an estimated 40% of the compounds floating in your bloodstream. The microbiome weighs about three times more than your brain. If you take out all the endocrine glands, the thyroid, the thymus, the testes, and weigh them, the microbiome, there are more endocrine cells in the gut than there are in the rest of the body. There are more immune cells in the gut than there are floating in your bloodstream in your bone marrow. It's a significant part of our health.

Let me walk you through some of the things it does. Because I thought I understood the microbiome, and I didn't. I thought I understood how important it was. Really, if you don't have the microbiome figured out if you're microbiome is off, and it is for most people, there's a glass ceiling in terms of health that we'll never get past because it does so much for us. Let me kind of walk you through this.

Where do we get it? We're getting it from our mothers. We're passing it on during childbirth. In fact, when we are in the womb, the microbiome of the mother guides and manages the development of our brain's neural architecture.

The microbiome wants us to be smarter because the smarter we are, the longer we live, the microbiome increases our intelligence by giving us very complicated brain structures.

Right off the bat, it's making you smarter before you're born. Then, you could say that there are, say, four initiations of the microbiome. Now the first initiation is what happens inside the womb. Our brain neural architecture is being organized. The second one happens when we're born, and the IGA from the mother's breast milk and colostrum mostly informs the immune system that the microbiome is part of the body. Don't attack it.

From there, the microbiome is responsible for educating the immune system. So the microbiome is responsible for expressing "self versus other." This is important because someone who doesn't recognize what self is, well, these are people that end up with autoimmune disorders because they can't see that they're attacking their own tissue. Someone who doesn't understand what "other" is. They have a weak immune function because they can't recognize threats coming from the outside.

The microbiome is responsible for educating the immune system on "self versus other." Now, this is incredibly important for what's going on with people today in terms of the chronic diseases we're having. So let's take a look at parasites and cancer all, and from my perspective, they're very similar in terms of how they work and how you could deal with them. The mammalian immune system is about 200 million years old, but parasites are 500 million years old. They've been around for a long time. They've learned a lot of ways about how to manipulate our immune systems and to infect us.

They can hide inside our cells. Certain types of lime will go inside the red blood cells. They can manipulate cytokine and interleukin signals, basically our immune system's communication system. They can make our immune system say, "stand down," not attack. Perhaps their greatest. There's one other thing they do. They can actually cause good bacteria in the gut to go rogue. And now the immune system has to deal with these rogue bacteria. So, they can create distractions for our immune system to deal with.

I think the main thing they do is they disguise themselves. Consider T. brucei, which is the parasite that causes sleeping sickness. It has over 2000 different genes that are coded for the proteins on its surface. Parasites really are the masters of disguise. When I say parasite, I don't necessarily mean a worm, a helminth. I mean something that is living in and on us in a detrimental manner versus a symbiotic way.

All sorts of toxoplasmosis is a parasite, even though it's tiny and round. It's not there; it's damaging us. These parasites, what they do is they have thousands of genes from manipulating their outer coat. Let's say they get in the body. They got a blue jacket and a red hat. The immune system finally figures out, "Okay,

blue jacket, red hat, that's danger, kill it." It goes after all of the blue jacket and red hat bacteria. But 1% of them were kind of dormant, and they got the message, "blue jacket, red hat" they were onto that. Now they have a green sweater and an orange scarf, and they come out, and the immune system's like, "Well, I haven't seen you before. I guess you're no big deal."

You see people who, especially with lime, who will have these waves of illness. Their immune system will try to eventually figure out that there's a parasite bothering them. Then they'll attack it, which takes a lot of metabolic energy. Then they get better for a bit, but then the parasite shifts from one of its thousands of coatings to another that builds up and then ravages the body. Then eventually the immune system figures that one out and then goes back and forth. It takes very little energy for the parasite to keep shifting. It's a lot of metabolic energy and resources used for the immune system to keep fighting.

It's really important that our body has a very fast recognition of parasites based on how they're changing. That's the microbiome. Remember the human mammalian immune system, 200 million years old from the mammalian immune system, parasites 500 million years old, but the microbiome is 3.5 billion years old. It's been around a long time. It knows every trick in the book. If you were to think of the immune system as the army, then the microbiome is like the generals and the strategists figuring out what to do and giving marching orders. Now the army can still work without a general. It just doesn't work anywhere near as well.

Dr. Wendy Myers: Yeah. I mean, that's really, that's so eloquently put how you describe all of that. I haven't quite heard it described like that before. We have the establishment of what the microbiome is. How exactly is it damaged? I've talked about this before. There are just so many different things in our environment working against our microbiome. Let's list some of those.

Spencer Feldman: Sure. Right off the bat, in childbirth, if the mother is stressed, she is not going to have a healthy microbiome to organize the neural architecture of the baby's brain. We know that the mother's microbiome will shift to Bifidus, a child's microbiome from the other bacteria, the adult bacteria, when she's pregnant to give her child the Bifidus bacteria during childbirth.

Now, if someone's born premature or sunny side up delivery or cesarean, they're not going to get the microbiome properly. Another part of its obvious breast milk. Now the mother's milk makes over 200 different oligosaccharides, those special sugars that we can't digest that are just there for the microbiome. In fact, there's more by weight, oligosaccharides in breast milk, and protein, which shows you just how important evolution thinks the microbiome for the baby is that it wants the microbiome to grow faster than the baby grows.

Indeed, if the microbiome isn't there to protect the baby, the baby's not going to survive childhood very well. Right off, we need a good child birthing sequence

with a non-stressed mother who herself has a good microbiome, and we need to be breastfed.

Assuming we have those, we face three additional stresses as we get older. First, we're not eating the kind of primitive diet we'd have to eat to get these oligosaccharides we need. We'll talk more about that in a bit.

The second would be chronic exposure to toxins like glyphosates, which are antibiotics to the gut. Artificial sugars, certain pharmaceuticals, and oral hormones. These are all very damaging to the microbiome. You could call these mass casualty events to the microbiome. When you take in artificial sugar, the microbiome thinks it is oligosaccharides, eats it, then the microbiome just gets completely screwed up.

Then the worst thing one could possibly do would be certain types of antibiotics like Cipro. Now Salmonella, which is a really nasty bacterial infection of the intestines, will knock out about 15% of the species of the gut, but Cipro can knock out 50%. These broad-spectrum antibiotics really do a number on the gut. They also knock out the bacteria in the appendix, which is your backup.

So, if someone just got Salmonella, had the runs for a few days, and lost a bunch of bacteria, the appendix could be reseeded with the backup copy of the microbiome. But when you take these strong antibiotics, and it kills the bacteria, even in the appendix, it takes a lot longer because now you have to get it from the environment.

We're now into our third generation of the discovery of pesticides, antibiotics, and chemical food additives. In every generation, the microbiome gets weaker and weaker and weaker. We're getting to this point where we're starting to see the collapse of the microbiome, where so many keystone species are gone that the microbiome is no longer able to hang on. Then, as a result, we're seeing a lot of chronic health issues.

I mentioned that the microbiome is responsible for our immune system. That's just one very important part of what it does. It's the regulatory agency for virtually everything in the body. The body wants to be in a homeostatic state. It wants to have blood sugar, not too high, not too low. The immune system is not too aggressive and not too weak. You want your neurotransmitters. You don't want so much dopamine that a person's manic, but not so little that they're depressed.

So many systems have to be managed, and this is the job of the microbiome. You would think that the brain does the managing, but not really. The brain is there for cognition and for organizing sensory and motor information. The day-to-day, moment by moment, second by second sampling of your bloodstream for all of the different neurotransmitters, antibodies, hormones, and messaging signals,

to determine what's going on and what needs to be balanced, that's the microbiome.

When you see people falling out of balance and out of the center, that will be the microbiome. You might think, "Well, I don't have a gut issue, so my microbiome is fine." Surprisingly, the gut issues are not necessarily what's going to show up in a bad microbiome. The two more common things you're going to see are fatigue and brain fog or mood issues because the microbiome is so important for our neurochemistry. One of the things you'll see is people will just won't feel good emotionally, and they'll get tired.

A good question might be, "How do you know if your microbiome needs help?" If it's not just a matter of, "Oh, my gut feels good. I'm fine." I'm sure you're aware that there are quite a few tests you can do. Have you done any of them through the yes tool analysis, Wendy?

Dr. Wendy Myers: I haven't personally. It's something that I really personally haven't had any kind of health issues surrounding. I just haven't bothered to do any of the gut tests.

Spencer Feldman: They're great if you can do them. They were about $500 each. What I want to offer to listeners is a couple of ways you can kind of tell if your gut microbiome is out without going through expensive testing.

Now, the first question you can ask yourself is, does your stool smell bad? A healthy microbiome creates stool that has almost no smell, maybe a little acidic from the short chain, fatty acid. If it smells really bad, that's just [inaudible 00:18:02] future faction. We'll get into that in a minute.

The second question is, do you need a lot of toilet paper? Now, a healthy microbiome means you wipe once, and there's nothing on the toilet paper. Some people think that's impossible, but when your microbiome is healthy, that's what happens. Another thing you can ask yourself is, what's your transit time? Meaning, how long does it take between food being eaten and going into the toilet?

Now, some people will say, "Well, I go to the bathroom every day, and my transit time must be fine," but not necessarily. If you look between your belly button and your pelvic bone or pubic bone, sometimes you'll see a little pooch. That is often backed-up food. If what is coming out of you is something you ate three days ago, even if it comes out every day, if it's coming out three days later, that's an issue. That's transit time.

One of the ways you can do that is you can go get some organic blueberry extract. Eat a tablespoon or two with a smoothie or whatever. Pour it on your fruit for breakfast. Then check the toilet and wait to see when your stool starts turning darker or purple. It should be 18 hours a day. That's pretty rare. I'll tell you why and I'll tell you actually how to get it.

Then an inexpensive test you can do would be to check your stool pH. What you want to do is you want to get some pH paper. But it's important that you get the pH paper that goes from 6 to 8 or 6 to 10. You want a narrower range. The ones that go from 4 to 10, there's such a wide range that you're not going to be able to get the defined gradations you're looking for.

You want your stool pH to be 6.6 on the money, right there. If you have a stool pH of 6.6, that doesn't mean you have a perfect microbiome, but if it's not 6.6, if it's significantly higher or lower, the microbiome is definitely out. I would say, anytime you go below 6.2 or above 7.0, that's definitely something you want to address.

Dr. Wendy Myers: Can we go back to some of the things that damage the microbiome? Can you talk about smoking, because I know that's a big issue with a lot of people. How does that damage the microbiome?

Spencer Feldman: I haven't seen smoking per se. I haven't because I'm assuming that anybody looking to work in the microbiome is probably not going to be smoking because they're already trying to improve their health. I would have no doubt that smoking or excessive alcohol drinking, or any number of things, will definitely stress the microbiome. I believe I remember reading that, although I couldn't quote you the numbers of which bacteria it affects specifically.

Dr. Wendy Myers: What about antibacterial soaps?

Spencer Feldman: Yeah, sure. We live in a world where we're trying to create sterile surfaces that don't exist. There are no sterile surfaces. If they are, they are not sterile 30 seconds later. We really want a world where all the surfaces have good bacteria on them. By continually washing your hands and sterilizing these surfaces, what we're pushing for evolutionarily is bacteria that can survive these sterilants.

Making more and more aggressive bacteria is the wrong direction. We want to cooperate with nature and cultivate bacteria that are good for us. I want bacteria on my cutting board that is good for me when I chop my food and eat some of it. That is, I think, a better way of doing it than trying to sterilize it with bleach every time. Then eventually, getting some bacteria on there, that's just a super monster.

Dr. Wendy Myers: Yeah, that drives me nuts when people are constantly trying to sterilize their environment. You know those people that are spending a lot of time and energy putting disinfectants and bleach and alcohol and ammonia, and all kinds of other products in their home to make it germ-free, which is "clean." It is just really kind of. They are barking in the wrong direction.

Spencer Feldman: They mean well. They're afraid. I understand because modern media is pushing a lot of fear porn. I would pose to them to let go of the idea that there's such a

thing as clean and realize that you're much better having a symbiotic relationship with the microscopic world than trying to kill it.

I think we've gone over a little bit about what the microbiome is. We could talk about it for hours. I'd like to give your listeners eight kinds of secrets to a healthy microbiome. Kind of like eight takeaway points that they could think about and use to improve their health.

The first thing you think is, when I talk to people about the microbiome, they're like, "Oh yeah, yeah, sure. I take probiotics. I'm good." I'm like, "All right, well, okay."

The challenge with probiotics is they're mostly Bifidus and lactobacillus because they are somewhat oxygen tolerant. You can grow them in a lab much more easily. You can mass produce these things.

But these are not the bacteria of an adult, right? Lactobacillus comes from the birthing canal, and Bifidus comes from the fecal matter. During childbirth, the baby's exposed to both of those, and that's the beginning microbiome with the baby.

But the adult gut doesn't really have Bifidus or lactobacillus in it. The skin has lactobacillus. The adult human gut is like 0.01% lactobacillus and Bifidus. They're not what we're meant to be using. So yes, you can get probiotics. They're a great idea, but it's not going to repopulate your gut because that's not what your gut needs.

Then the question is, "Well, if I've not got some of my bacteria and if probiotics aren't what I do, what do I do?" Since we're not yet at the point where they're being made. We're close. There are some very large gut simulators in a laboratory level where they're making things like Akkermansia Muciniphila and some other really cool bacteria. Perhaps 10 years from now, we'll get to the point where you can go and buy a lot of really good bacteria. We're not there yet.

There are three reserves for your good bacteria. The first is dormant cells. Yeah. Dormant cells are the ones that are your good bacteria that just haven't been fed. We're always getting some oligosaccharides in our diet. These are the sugars our bacteria eat. It's rare unless someone's gone through some serious antibiotic use for them to knock out all their good bacteria. Typically what happens is they just go dormant. They hibernate because there's just not enough food for them.

The easy thing is that if you just give the gut the illegal saccharides that it's expecting or was hoping for, then the dormant cells reproduce. If you think about it, a single bacteria with a doubling time of 20 minutes can go from one

bacteria to 34 billion in 12 hours. It doesn't take long to repopulate your gut, assuming your first gut reserve is in there. For most people, it is.

The second reserve, as I said before, is the appendix. I know many people were told it's a vestigial organ with no purpose. That's not actually true. It's part of the disinfectant station that is in between the small and large intestines. We can get into SIBO if there is time for that. It's also the backup for the bacteria. If you've lost some, your appendix can repopulate for you.

Now the third reserve is the environment. Every person you meet, every hand you shake, every salad you eat, the microbiome is everywhere. It's in the air. It's on every surface. That may sound disgusting, but life finds a way. You are constantly being supplied with a microbiome just by being alive. Not probiotics. It's oligosaccharides. That's the key. Feed the bacteria.

Now, what happens if we can't get enough of these oligosaccharides in our diet, well, then what? All right, well, you could. You could eat a primitive diet. You could eat a lot of tubers, but they have a lot of Rhapanus in them. That can make most people incredibly flatulent and cause a lot of stomach upset. And eating a lot of insects. It's not the way that I would want to go. Eating a primitive diet. It sounds romantic, but when you actually get to it and realize that you're going to have to be chewing on tubers two hours a day, it's a part-time job.

What I ended up doing was researching. If I was eating a primitive diet, what would I be eating, and what kind of oligosaccharides would I be getting? I came up with eight key oligosaccharides. I put them in what I thought was the ratio of what you would be getting if you were a really successful primitive hunter-gatherer. Product hit. There's the product. There it is. It's a powder. It's got those oligosaccharides, and I'm going to tell you what's in them. So if you want, you can just make this stuff yourself.

What we've got are galactooligosaccharides. Those are the oligosaccharides you find in tubers. That would be like what you'd find in jicama,artichoke, and that kind of thing.

Xylo-oligosaccharides and fructooligosaccharides are things you find in fruits and vegetables. Then you find a special kind of connective tissue oligosaccharide in the wild game. You will find it in all meat, but in factory-raised meat, where the animals have no exercise and have no connective tissue, you're not going to have as much in it. If you want connective tissue in normal meat that you don't hunt, assuming you don't have a relationship, you can't get grass-fed animals, go for brisket.

Then you have the chitin oligosaccharides, which you find in insects and mushrooms, and fucoidan oligosaccharides in certain types of seaweed. Then there are the isomaltooligosaccharides you find in honey, miso, and kimchi. The product we make has about 200 times more galactooligosaccharides than you'd

find in beans and 300 times more fructooligosaccharides than you'd find in Brussel sprouts. It only takes a quarter of a teaspoon with a meal. A little goes a long way. You might say, 'Well, gosh, do I really need to get eight different oligosaccharides?

There are a few reasons you want a bunch of these things. One is oligosaccharides act as decoy molecules that prevent pathogenic bacteria and fungi from attaching to the gut wall. The wider the range of oligosaccharides in your diet, the more protection your gut has against a wider range of bad bacteria.

Secondly, different bacteria require different food sources. So the greater the diversity of your oligosaccharides, the greater the diversity of species in your microbiome.

Third, oligosaccharides are not interchangeable. I'll give you an example. I have a friend in her twenties. She was two years into a serious and worsening health crisis. I did one of those symptom questionnaires, those six pages where you write every symptom you possibly have, and you try to figure out what organ system is most damaged. Basically, every organ system she had was at a dangerous level of dysfunction. She was moving towards needing full-time live-in care in her twenties. I mean, her chronic fatigue was that bad now.

What I did was I started going down the list of her symptoms, starting with the top one. Heart took her to a top cardiologist. My heart was fine. But he said, "But she has some inflammation, but her heart's fine." Then endocrine, no, her endocrine levels were out of whack, but that wasn't what it was.

Every time we kept trying something else, something else, finally, I got down to one of the lowest things on her symptom questionnaire, which was her gut. I'm like, all right. I didn't think we were going to turn her around, but I thought if I could help her 20%, that would be a great win. Three days into taking the oligosaccharide, she was happy and energetic for the first time in two years.

Remember when I said that in 12 hours, you can regenerate your microbiome. Yeah, it could be that fast. She finally recovered. We were both very happy. Then I ran out of one of the oligosaccharides in the blend that I made her. I figured, all right, no big deal, she's getting seven out of eight, right? Three days later, she basically collapsed again.

I said, okay. I sourced that one, oligosaccharide. I gave it to her along with the other ones, and two hours later, she was able to get out of bed to make herself lunch. And over the next four days, she got back to health.

What was the takeaway? Oligosaccharides are not interchangeable. A healthy microbiome needs a mix of oligosaccharides to function properly. The second takeaway is that if you have the right materials to work with, you can quickly

retain your health. I mean, she was able to recover in four days, which it took her two years to lose. That was pretty amazing.

Dr. Wendy Myers: That's absolutely incredible. You have a lot of stories like this as well. You're obviously quite brilliant and come from a depth and breadth of background studying a lot of different modalities to help your clients.

Spencer Feldman: We were pretty pleased with her. We've had a lot of turnarounds now in things that you wouldn't think would be related to a microbiome. I'm at the point now where anytime someone counsels me, right off the bat, I ask them about their microbiome. You'd be surprised how many people with bad chronic health problems had a very difficult birth sequence. They were premature delivery in which they probably got some hospital-based infections in their gut they never got out.

So secret number one, take oligosaccharides, either my product or you now know the ingredients, you can do it yourself. Keep in mind that the ratio is important because if you get the ratio wrong, you can grow good bacteria but to inappropriate levels.

What's the second secret? Fiber. Humans are estimated to have been here for around 200,000 years in our current form, 190,000 of those years, we were hunter-gatherers. For the last 10,000 years, we have been farmers, and for the last 100 years, modern man.

Hunter-gatherers eat about a hundred grams of fiber a day, early farmers about 35 grams, and modern man eats 15 grams. Again, I'm not going to try to eat a hundred grams of fiber like a hunter-gatherer because I'd have to be eating tubers all day long. But I think 35 grams of fiber, like our farmer ancestors, did for 10,000 years since I don't have agriculture, is a good idea. If 35 grams of fiber work for the last 500 generations of humans, how do we go about getting 35 grams of fiber? Now you might say, oh, well, I eat a lot of salad. Okay. Would you care to guess how many grams of fiber are in a cup of shredded carrots?

Dr. Wendy Myers: Not probably very much.

Spencer Feldman: Three. Yeah, salad isn't going to do it. The answer is beans. Beans were the first crop we ever cultivated. We cultivated them before grains. A cup of beans will give you 17 grams of fiber. You're halfway there. The rest you can do with grains and fruits and vegetables. If you make beans a staple part of your diet, you can easily get to 35 grams without having to eat salad nonstop.

Dr. Wendy Myers: No shortage of beans here in Mexico. There's just like everywhere, for a reason.

Spencer Feldman: Yeah, and if they give you gas, I suggest soaking them and draining them a few times. If that's still not enough, adzuki beans. If you soak those, they're pretty silent. They're silent beans. If you want to get past 35 grams, let's say you read

that for every gram, there's a ratio. I don't remember what it is, but as your fiber intake increases, the risk of all forms of death decreases.

Yes, you can get past 35 grams. You're probably going to take a fiber supply. The problem is that insoluble fiber can really irritate a damaged gut. Soluble fiber can create methane gas, which aside from flatulence, is paralytic. The methane paralyzes the gut and slows transit time, which is not what you want. So the second secret is beans.

Now that takes us back to transit time. Depending on the kind of food you eat, the food will take around one to four hours in your stomach, six hours in your small test, and then 10 hours in the large intestine. If your trans at the time is less than 16 hours, you're probably not getting enough time in the gut for your food to be absorbed. If it's more than 24 hours, that's likely for most people, then you are going to go into a dysbiotic cycle. Remember, just because someone says they're not constipated, because they go to the bathroom every day. If what is coming out of them was something they ate three days ago, that's constipation.

How do you speed up transit time? Don't take things like Cascara Sagrada. These are stimulants that your body gets used to, and then you can't go to the bathroom without them. Here's the trick. Consider the Hadza of Tanzania, which are arguably the most well-researched hunter-gather in the modern day. They eat a hundred grams of fiber daily, but they also do 135 minutes of vigorous exercise daily. That comes to 1.35 minutes of vigorous exercise per gram of fiber.

So, if you're eating a standard diet of 15 grams of fiber, that means you should add a minimum, do a 20-minute hike, or a 30-minute walk once a day. If you're going to eat 35 grams of fiber, that's about an hour walk a day. Intestinal transit and peristalsis are very muscular activities. This is one of the reasons why exercise speeds up transit time. If you have weak muscles in your body, you're going to have weak muscles in your intestines, and they're not going to move food at an appropriate speed. So, the third cardio secret is exercise and not necessarily heavy-duty weight-bearing exercise. Although any exercise is good, it is more like cardio and long walks.

Now here's another secret to transit time. You've heard not to eat at night. Grandmothers will say, "Don't eat late at night." But then they're also going to give you milk and cookies, so that doesn't make sense. Anyway, there's a special kind of peristalsis called the giant migrating attractions. There are a couple of different names for them, migrating motor complex. This is how the gut cleans itself up leftover debris.

What happens is that the small intestines are supposed to squeeze everything out of them a couple of times a day. They won't do this as long as there's food in the stomach or in the intestines. That means if you were to eat at eight o'clock at night, if the food's in the stomach for four hours, that's 12 at night. Then if it's

in the small intestine for six hours, that's 6:00 AM. Then if you wake up, it's 6:30 to go to work, and you don't get that peristaltic cleanse, so the small test never cleans itself out.

What that means is that there are things in the small intestine. They're just kind of hanging out there long term. We're going to get into future factions in a minute. But one of the keys is, don't eat late at night. Try to have at least 13 or 14 hours between when you have dinner and when you eat breakfast. Enough time to have that cleansing cycle in the small intestine. That's the third secret. Have an early dinner and then 14 hours before breakfast.

It's important that fiber and oligosaccharides are the only things entering the large intestine. If you eat beyond your capacity to digest and absorb, then carbohydrates and proteins, and fats spill over into the large intestine and cause problems. Fats and proteins in the large intestines stimulate the growth of a petrifying form of clostridia, which is the same kind of bacteria that digests fat and protein in corpses and is responsible for their horrible smell. Carbohydrates other than the oligosaccharides and fiber in the large intestine, ferment and create gas and alcohol and formaldehyde, and candida.

The idea is to eat enough to nourish yourself, but not so much as you spill excess food into the large intestine and get putrefaction dysbiosis. This is also why transit time is so important. Let's say you do decide, you go to a birthday party, you ate a bunch of chocolate cake, or you go to a family barbecue, and you just had ribs all day long, and you ate more than you could digest. All right, as long as you got that cleaning cycle, it doesn't stay in there for five days. I'm not saying never go out and feast. I'm saying, understand its price and how to deal with it. So the fourth secret is don't overeat.

Then that brings you to the question. "Well, what happens if you don't digest even small amounts of food well, so that you're spilling over undigested food, even with small amounts?" There are three hacks for this. One, you have to chew your food well. If you don't have a good bite alignment, go see a good dentist.

The second is that you have to make sure your bile is flowing because if not, it's going to limit fat digestion. It'll back up in the pancreas. It can give alkaline burns and [inaudible 00:35:05] digestion. We have that glutamic product. You can look at that for.

Then the third is to take digestive enzymes with your meals. That way, you are helping your body digest whatever it is going in and making less undigested food appear in the large intestine. Now, if your stool, breath, or body smells bad, you've probably got undigested protein spillover putrefying in the colon. If you have gas, you probably have undigested carbohydrates spilling over and fermenting in the colon.

If you have gas that smells bad, you've probably got both protein and carbohydrates spilled over, and that's putrefaction and fermentation. Secret number five is to chew, keep your gallbladder healthy, and take enzymes with your meals.

I'll give you one more bonus here on this. If you are getting methane production, which is one of the types of gas, you can take a quarter of a teaspoon of food-grade Epsom salts a couple of times a day with water. What that does is it'll shunt methanogenesis into acetate production. I don't have time to get into my metabolic biochemistry of it, but it'll make you make less methane.

Here comes the next secret. There are two prebiotics, which are what oligosaccharides are, that aren't in the panacea formula. It's because they're really easy and inexpensive to make. You have to take so many of them that I wouldn't have room to put anything else in the product. I'm going to tell you how to make those. Retrograde starch or resistance starch and beta-glucan.

Retrograde starches are made by cooking starchy foods like grains, beans, or potatoes. Then you put them in the fridge for four hours. That causes the starch to crystallize, turning it into a time-released oligosaccharide. This is also really great if you have blood sugar issues. If you are diabetic or pre-diabetic but still want to enjoy some potatoes or rice, chill them first. Or noodles are put in the fridge for a few hours.

Now, beta-glucan is not an oligosaccharide, but it is a prebiotic found in whole oats. You can get both of these really easily. All you have to do is cook whole grain oats, then put them in the fridge for four hours. That's going to give you the beta-glucan and the resistant or retrograde starch.

Then the last secret I want to tell you is to have a good attitude. The microbiome affects your moods, but moods also affect the microbiome. The microbiome produces, consumes, and regulates the neurochemicals that create our emotions. But our emotions also stimulate the growth of various bacteria. So the emotions of fear and anger and stress, respectively, adrenaline, noradrenaline, and cortisol, will stimulate the growth of pathological bacteria and increase the virulence of otherwise harmless food bacteria.

On the other hand, oxytocin, a neurotransmitter, is associated with feelings of love and compassion. They support the growth of good bacteria, and good bacteria can also make oxytocin. It's really important to cultivate a good attitude because it's going to cultivate a good microbiome.

I will give you a takeaway. Let me tell you what happened to me personally when I started doing this. I'm in pretty good health. There wasn't anything specific that I was hoping to get, but I had a lot of amazing things that did happen. One of the first things I noticed was I was in front of the computer, and suddenly my reading glasses were too strong for me. I'm like, "Well, that's interesting because

typically, eyesight gets worse with age." The blood vessels that go to the eye are very, very fine. They're very small. When people start having issues with their muscles or blood circulation, the eyes usually get it first. My eyesight got better.

The next thing is I have a gym in my garage. I went out, and I was working out and doing bench, and suddenly I was able to do a lot higher rep counts on the same weight. I had to put some more weights on there. So my physical strength went up, which I kind of plateaued. Another thing is my endurance has improved. I was able to do the same exercises for a lot longer.

Another thing that happened is my sense of balance improved. I've never had a good sense of balance. I think it was from brain damage when I was in a childbirth sequence when I was mid-forceps. I was coming feet first, and they reached in and grabbed me with forceps, and crushed my head. I've never had a good balance. I could never dance. Now I can lift one foot up, put a shoe on and take it off, and put it back down again. I don't hop around. I can dance now for the first time in my life, which is great because it's a lot of fun. I've got a lot of dancing to catch up on.

Then the last thing is my skin got a lot stronger. As an example, I live off-grid, on a farm. I was walking barefoot, and my foot got caught in a tour. It got jammed in such a way that I felt the top of my foot and my Achilles get jammed up. It hurt. I hobbled back to my house, and I was prepared to clean it out, irrigate it, and figure out if I needed stitches. I'm looking at it, and I'm not bleeding. Not only was I not bleeding, but the skin wasn't damaged. It was red. It was irritating, but it wasn't damaged. That was amazing to me because a month ago, that would've just torn my skin to pieces.

Then it kind of dawned on me what all these things had in common, the eyesight, the strength, the endurance, the balance, my mood was getting better, my skin got stronger. These are all things that get worse with age. Basically, in return for feeding my microbiome the oligosaccharides it needs, the microbiome was returning the favor and was literally making me younger.

Dr. Wendy Myers: Wow. That's amazing. I mean, that's some spectacular results just from taking these oligosaccharides. You're making me want to eat more beans again, for sure. Sometimes I don't eat them because of that side effect. They make you a little bit musical. It's not pleasant, especially when you have a boyfriend or a significant other. Can you tell us more about your product and where we can get it?

Spencer Feldman: Remember, just soak them. Take the beans, soak them in water for 12 hours, rinse them off, soak them again for 12 hours, and rinse them off. Again, the adzuki beans, you're going to have very, very little gas from those.

Dr. Wendy Myers: Yeah. I had been doing that. I had been doing that. Still, there are some issues there, but I do have some adzuki beans.

Spencer Feldman: Yeah, try those.

Dr. Wendy Myers: Yeah. Yeah. I also cook them with combo seaweed, and that also can help reduce the gas as well.

Spencer Feldman: Absolutely. The panaceum product, there it is. It's basically those oligosaccharides because oligosaccharides are sugar. It actually tastes good. I kind of put it on top of my fruit or whatever you're cooking. After you've cooked it, I don't want to heat it per se. It doesn't take much. It's like a quarter of a teaspoon with a meal and good to go. I should explain if you have SIBO and you know that you can't do fructans and all the FODMAPS. Do you want to talk about SIBO, because that's an issue we can get into.

Dr. Wendy Myers: Yeah. That's a big problem. Yes. Let's discuss that.

Spencer Feldman: Okay. All right. SIBO is when you have bacteria, and it isn't always bad bacteria, but it can grow in the small intestine. How does it get there? Let's talk about that process.

You should have stomach acid, which should disinfect most of what gets into your gut. Then you have bile, which is also a detergent to break down bacteria. You have pancreatic enzymes, which are going to break down bacteria. Then you have, I think it's the FXR receptors at the ilium, which are stimulated by the bile to create natural antibiotics at the ilium.

Basically, there are two ways bacteria can get into the small intestine, top-down or bottom-up. The top-down means you have to make sure you've got enough stomach acid, bile, and pancreatic enzymes to deal with stuff from the top down. You can look it up online on how to test yourself for stomach acid. Just take some betaine hydrochloride if you don't have that resolved.

Now, what about coming from the bottom up? There's a valve called the ileocecal valve, which is sort of like midway between your belly button and the prominence of your right hip. Its job is to open up when food is coming down from the small intestine into the large intestine, then close again. However, there are some things that can cause problems with this valve, and then food can back up from the large intestine and bring bacteria into your small intestine, and it can overgrow there.

One thing is any kind of adhesion. If someone has had any kind of abdominal surgery and it's pulling on the fascia, it can torque the ileocecal valve open. You can just massage the ileocecal valve for a few minutes every day to see if it's tender there.

The ileocecal valve is important. Then remember we talked about those migrating peristaltic functions. We want to make sure that there's no food just

hanging out in the small intestine. We need once a day to make sure while we're sleeping that there's no food in the gut. So we can squeeze all of the food out of the small intestines, so no bacteria and fiber, oligosaccharides, and undigested foods are sitting there all night to grow bacteria.

If somebody has SIBO, that's a relative contraindication for Pentium orally. They still need it. They just can't take it orally because they'll end up growing the good bacteria in the large intestine but also growing some of the bacteria in the small intestine. My suggestion for that and what we do with someone is getting a 35CC catheter tip syringe. These are just like plastic syringes about this big with a little plastic kind of nozzle on end. And you mix the panaceum up with water or maybe a little bit of saline, and you take it rectally.

You lay on your back. Bring your knees up and let it squash inside your gut. That way, you're getting the oligosaccharides into your large intestine but bypassing the small intestine. That way, you're not going to overgrow the bacteria in your small intestine, but you will feed the bacteria in the large intestine. Then while you're doing that, work on a SIBO protocol and again, work on the bile, work on the pancreatic enzymes and work on the stomach acid, work on the ileocecal valve and work on getting the intestinal transit moving. That's my SIBO addendum.

Dr. Wendy Myers: I love that because SIBO is such a huge issue. So many people have a lot of stressors, even childhood development stress and things like that. It causes them to have poor vagal nerve tone that cannot innovate that migrating motor complex in the small intestines. There's an issue with that that I think is a big underlying root cause of SIBO, but we need to have solutions for that. People still need to take care of their microbiome, their gut microbiome. That's a great way to do that.

Spencer Feldman: What I would say is, I don't think of SIBO as an all-or-nothing event anymore. I think of SIBO as something that everyone has to a degree. Because if someone just has a little bit of gas, colonic bacteria can pop up when the gas pops open in the ileocecal valve. There's always going to be some reflux from the colon up to the small intestine. It's not a perfect system.

Unless you've got someone who has got an 18-hour transit time, perfect digestion, perfect ileocecal valve, there's always going to be some SIBO there. Understanding what we can do to minimize it is a really important phenomenon, and it's not hard.

Dr. Wendy Myers: Thank you so much for coming on the show. That was so educational. I love having you on the show because I can just kind of sit back and relax, and you just have this amazing presentation for everyone. I really want to thank you very much for coming to the show. I love your line of products at Remedylink products. You can find that on remedylink.com. There are links on the show notes as well. Amazing line of suppository and detoxification products. Now this

product. I love your work, and I appreciate you coming to the show to educate us.

Spencer Feldman: Thanks for having me. I'll get a panaceum so you can play around with it and see-

Dr. Wendy Myers: Oh, I would love that. I would love that. Everyone, I'm Dr. Wendy Myers. Thank you so much for joining the Meyer Detox podcast. It's just such a pleasure every week to interview all the world's health experts and help educate you and make those little distinctions you need. Any just little idea or little fact or little product or protocol that can help you really make that difference in your health. That's why I do this show because you deserve to feel good. It's just my pleasure to be able to help you do that. Thanks for tuning in, and I'll talk to you guys very soon.