Chronic Infections - Hidden Causes Of Fibromyalgia

Rodger Murphree, DC, CNS
with Darin Ingels, ND

Rodger Murphree, DC, CNS
I welcome. I'm Dr. Rodger Murphree, and I'm your host for the Freedom from Fibromyalgia Summit. I have Darin Ingels here. Dr. Ingels is a naturopath. He's a well sought out speaker and author. He specializes in Lyme disease, but he's got a wealth of knowledge on infectious disease, all sorts of functional medicine conditions he works with. But Lyme disease is kind of what put him on the map. He's sort out as an expert for that. And today, of course, when we're talking about fibromyalgia, he's going to share some of his knowledge about how infections can be a trigger for fibromyalgia. And so, Darin, as always, thank you so much for being part of this summit. We were just joking around. It seems like every other week we're on a podcast together are some of the great minds think alike and always come away from our conversations with another aha and thought of that aha. So thank you for being here.

Darin Ingels, ND
Oh Rodger, always my pleasure.

Rodger Murphree, DC, CNS
Hey, so let's just dove right in. So I know a lot of people talk about fibromyalgia is nothing more than lamb or marlin. There's nothing more than fibromyalgia. I mean, you can you can, you know, mixes if.

Darin Ingels, ND
It's just that easy.

Rodger Murphree, DC, CNS
Yeah. And then we have someone like Richie Shoemaker who kind of put more toxicity on the math. And I think we talked some about that and you're on my lungs on it or Shoemaker says that anybody that has a diagnosis of fibromyalgia, there's no such thing. It's all it is, more toxins,

worse, worse. The truth. And he says that they think same thing about line, too. He says that it's not the same as the muscle toxin. So, you know, is it the chicken or the egg? Where do we start with all this stuff?

Darin Ingels, ND
That's a great question, Rodger. And it's so confusing for people. You know, we're always trying to look for the golden egg, right? We want to find that one thing that we can point our finger to go. That's it. That's the culprit. That's the cause. We deal with that one thing and we're going to be healed. We're going to be better. But look, the body's complex, right? I mean, we're dealing with a lot of things. It's really about load. You know, my background is in environmental medicine and we always use this concept of, you know, we're all born with a barrel, right? Some of us have a big barrel and some people have a shot glass. When the barrel overflows as you become symptomatic. So the goal is always to keep that threshold below the top of the barrel so it doesn't overflow. So in reality, you know, we're looking at everything that we're exposed to in our world that impacts our health. So, you know, we'll talk a little bit more about infections specifically, but toxicity is part of that.

And, you know, I mean, it's one of these things where you can keep going down this rabbit hole deeper and deeper. And you could even say, well, even for someone who's got a persistent infection, why do they have a persistent infection? Is it because they're toxic is because their immune system is suppressed or doesn't function the way it's supposed to is because at the most basic cellular level, that cell doesn't do what it's supposed to do. So, you know, you and I, as practitioners, we're always trying to look at these little clues that give us the hint on what that root cause or the etiology is. And I would argue that at least in my population of people with fibromyalgia, it's really never one thing, right? You know, it's probably one of these things that builds up over time. There may have been an event that people could say, you know what, my health was good. And then something happened. I got sick. I was in a car accident. I was in some occupation where something happened. They can pinpoint that thing where the health changed, but that may have just been the catalyst, right? It may not have been the whole of why they feel they way they do.

And so to hang our hat and say, okay, you're right, it was that one event that was it. We deal with that and everything's going to be hunky dory. The reality is, is that it may it may be part of that, but we have to keep digging deeper and deeper and looking at the whole of the person. And, you know, you and I have talked about this in other summits, but the importance of the terrain. Yeah, that's everything that makes up your internal milieu, that really kind of dictates how our body functions. So this is our gut function. This is our cellular page, this is our stress

management, this is our emotional wellbeing. I mean, all of this, you know, feeds into, you know, how we present with our different symptoms. So to make a very complicated question, more complicated than the answer, you know, it's really it's a lot of things. And, you know, for Dr. Shoemaker to say it's just mold. I mean, come on, it's not that simple. Yeah. Yes. There are a lot of people with mild illness that have fibro. I will agree with that. Yeah. But to say that that's the only thing I think that's not accurate. And I do find a lot of people do have underlying infection as part of their etiology.

Rodger Murphree, DC, CNS
So, you know, as you mentioned, everybody's looking for the smoking gun and we want to be able to find the smoking gun. And there it is. And that's the cause. It's much more complicated than that. I mean, there's some common things that people have that they're dealing with that can bring on fibromyalgia. But I really like the whole barrel thing. You know, you're putting toxins as you go through life in the barrel. And that explains why someone all of a sudden starts to develop food allergies. They've been eggs their entire life and also narrow down the eggs they blow up like a balloon or someone that has never had seasonal allergies. All of a sudden now they can go out, you know, we can go out in the springtime because they sneeze or, you know, head off and, you know, get sinus infection. It's a process of these toxins building up. And then one day a straw comes along, the breaks the camel's back in fibro. It's this cross between maybe genetics.

We don't we know we're not sure about that autoimmune. I'm not sure about that. But something comes along that is the straw that breaks the camel's back. And they can't get back to where they were. And, you know, so different, you know, there's again, there's different there's common things, common triggers, low serotonin, this thing called central sensitivity pain syndrome, where the nervous system is disconnected to the hormonal system. But let's talk about infections as a trigger. So that's one of your specialties. And there's a lot of debate on, you know, some people think that that's the only cause. You know, Epstein-Barr virus, cytomegalovirus. For a number of years, they tried to lump fibromyalgia in with chronic fatigue syndrome together as being caused by some of these viruses. Can that be a trigger? Absolutely can. But it's not the only trigger.

Darin Ingels, ND
Absolutely. I mean, you know, we'll use Lyme disease since that's something I work with a lot as our poster child because it does cause a lot of connective tissue problems, including fibro. And I think when you look at a lot of these conditions, like fibro, like chronic fatigue, these sort of vague diagnoses, you know, it's a label, but no one can really tell you the why, right? So it's again,

it's probably a multitude of things. But when you look at what infection can do as a whole, of course there's a direct effect of whatever that infectious agent is. Now, again, there's a difference between a bacterial infection, a viral infection, a fungal infection, a parasitic infection, and how it may manifest can vary quite a bit. Lyme disease being a bacterial infection, you know, a lot of bacterial infections can produce toxins. So sometimes the effect you're feeling is the production of that toxin. We know that strep makes toxins. We know that Lyme can make toxins. A lot of bacteria can make toxins. Yeah.

So there's that toxic effect and we talk about toxicity as a whole, much like mold or micro toxicity. You know, it makes our cells sick and they and then the cell doesn't function well. And the end result often is some element of inflammation. And the connective tissue. Now beyond that, you know, we know that something like Lyme can also cause an autoimmune problem. And it's not autoimmune like lupus and rheumatoid arthritis. But we know from the research that Lyme can cause and effect on the gray and the white matter of the brain. It can affect our peripheral nerves, it can affect our joints in other parts of our connective tissue. So if it's affecting our central nervous system in that way, what's going to happen? What's the downstream effect of that? Well, it's going to be pain, right? It's going to be neuropathy. It's going to be sleep disturbances. It's going to be mood problems. It's going to be behavior changes. It's going to be anything tied into your nervous system. So I think there's an element of fibro that explains it quite well. And again, my experience is that if that is really the problem, we treat the infection and the symptoms get drastically better.

You know, if we can stop the toxicity, if we can downregulate that autoimmune response, you know, the body actually gets a chance to heal. And I think if you look at something like Epstein-Barr virus being a little bit different, being of course it's a virus. And, you know, the overwhelming majority of people by the time they're 18 get exposed to this virus. And we think of Epstein-Barr being a cause of mono. But there's plenty of people who get Epstein-Barr that never had mono, right? So again, we could get into this very deep philosophical question, is it the germ or is it the terrain? Right. You know, we kind of come back to that. I'd say there's a lot of germs or bugs out there that are not inherently harmful. They become harmful because our body doesn't deal with them in the way it's supposed to. And in many cases, again, has this kind of autoimmune reaction. And I think COVID was a good example that, you know, we saw people who got sniffles, we saw people who died.

There was a very extreme reaction. The virus itself really wasn't the problem. It was the immune reaction. That cytokine storm that everyone kept hearing about. It was this sort of over abundant response of your immune system that created the respiratory problems, the difficulty breathing

and so forth. So when you've got a hyper responsive immune system that is reacting stronger than it's supposed to, that can create a lot of inflammation in the body. So again, it gets to be a bit complex. And when we look immunologic early, you know, we've got these cells in our body called T helper cells, we've got T helper one and T helper to and we think of T helper one cells being the direct scavengers of your immune system. They see a virus, they see a bacteria, says, Hey, I don't know you, you don't belong. I need to get rid of you. And then we've got our T helper, two cells that don't directly get rid of a bug, but they kind of signal other parts of the immune system, say, hey, there's a problem over here, you guys need to deal with that. And that really helps stimulate B cells to make antibodies and so when we're measuring blood tests and antibodies against Lyme antibodies against Epstein-Barr, it's those B cells that are responsible for that.

So that th1, th2 is really a balance. It's a teeter totter. And one of the things that an infection can do is it can upset that balance, because as you increase one, you can suppress the other. One of the things I see a lot in my practice is that after someone gets Lyme disease, now they're allergic to their world, food bothers them, mold bothers them, pollen bothers them, chemicals bother them. Why? Well, because we've upset that balance of, you know, th1 and th2. And for whatever reason, and I don't know why, but we see that it changes that balance so that they become more too dominant and therefore they become more allergic and hypersensitive. And to make this even more complex, there's these things, these cells called T h 17 and to 17 cells really are our responders to microbes. So again, particularly bacteria. So then these t h 17 cells see these different bugs, send an alert to the immune system that can upregulate a whole other part of immune system, including these cytokines.

And then again, that's what triggers this, you know, inflammatory response again in the effort to get rid of the bug, it accidentally damages our own tissue. And again, that part happens to be connective tissue. That's your joint, that's your muscles. You're going to be sore, you're going to be achy, you're going to have joint pain, muscle pain. And so, you know, that kind of ultimately leads to the symptoms that people feel. So, you know, it's just it's so horribly complicated. But I think people need to understand, you know, that as you're talking with your doctor, your health care provider, and you're trying to understand for you what is part of that root cause, you know, ruling out these infectious agents would definitely be part of it.

Rodger Murphree, DC, CNS
So there, a lot of material in there. So one of the things I wanted to talk about is Dan Teeny, a well known physician or certainly was for a number of years in Florida who treat treats fibromyalgia. And his premise is that everyone has a virus as a bug. And there's another there's another

practitioner shaping my brain. He's in Tuscaloosa. He's doing research on Celebrex, and he's a GI doctor. And oh, I can't believe I can't think his name, but it's the Epstein-Barr virus. He thinks it's a you know, and he's trying to get this drug patent, which really doesn't make sense to me because it's Prilosec and Celebrex. I he just take us over the counter. But anyway, I have had a real problem over the years with both US physicians. I like them personally as a person, but it was too simple and years ago when I would test everybody, I do a viral panel and I would look at that and I would see, did they have Epstein-Barr or do they have sort of mega and herpes? And sometimes they did, but there was no clear pattern.

And I was guilty of then to say, well, viruses have nothing to do with fibromyalgia. I was, you know, being candid here. That was probably 15 years ago when I said that. But over the last decade or so, I've realized it doesn't matter if it's a virus, it doesn't matter if it's a bacteria. As a matter of fact, small toxin doesn't matter if it's Lyme disease, it's a trigger and everybody else and everybody can be something different. And it's that trigger. It's the last straw. The thing that makes the bucket overflow. But if you don't find that, you don't fix that. You can't get everything back into the bucket. So I do believe that viruses you know, I do believe these infectious agents can definitely be a trigger for fibromyalgia. What if someone suspected they wanted to know, do I have fibro or do I have Lyme disease without doing testing? You know, we both test, but without doing testing, what would be some of the things that would separate those two?

Darin Ingels, ND
Well, I think, you know, there are some unique hallmarks of Lyme disease that we don't necessarily see in fiber. I mean, joint pain, you know, where fiber tends to be more into the belly of the muscle. And with Lyme patients, often it's the joint directly and it's migrating joint pain. It's my right hip, then it's my left knee, then it's my right shoulder, then it's my neck. You know, we see this wandering joint pain that's very specific to Lyme disease. You know, Lyme disease also tends to cause various types of neuropathy. And I see with some of my fiber patients, I wouldn't say that's a hallmark. So when you start getting this like numbness and tingling and weird sensory distortions, people will describe having like ants underneath their skin or they feel like they have a second degree sunburn all the time. That happens a lot. Chronic headaches, migraines, very common with Lyme disease. Swollen lymph nodes, very common with Lyme disease. Yes.

But there's a few of these physical signs and other symptoms that would make me think there's at least more of an infectious etiology, whether it's Lyme and really other infectious agents can cause similar symptoms. But, you know, the bullseye rash, you if you ever get that big rash that looks like a bull's eye, that's flat and spreads, that's very unique to Lyme disease and the

migrating joint pain. Those are the two things. When we see those, there's really nothing else that causes that. We know it's Lyme even without doing testing where the other 100 plus symptoms associated with Lyme disease, you know, look like a million other things.

Rodger Murphree, DC, CNS
Yeah. So for me, what really separates the two when I'm doing a history and intake, if I hear someone tell me that all these weird reactions, just crazy, weird reactions, crazy dreams, struggling with their sleep, their tongue goes numb. I mean, things that you normally don't see in a fabrication. I don't, you know, 20 years. I don't normally see that, although those are fibromyalgia can have chemical sensitivities, too, and they can have some unique symptoms. But to me, Lyme, it really stands out when you start talking to someone that can't take any medication, can't take a supplement, can't even take a homeopathic remedy because it sets them off. They're just so wired. Their wiring is so dysfunctional from this bacteria that they get all these weird reactions and have all these weird sensations that you just describe.

Darin Ingels, ND
Yeah, it's that's a great way to put it. There's a lot of weird things that happen with Lyme and this. What's the first thing first?

Rodger Murphree, DC, CNS
That's a real it's a medical term. We're real, you know weird yeah.

Darin Ingels, ND
So well you know this is what makes a problematic for people who are suffering with this collection of symptoms. They go to the doctor, you know, maybe they got a diagnosis of fibro, maybe they did, or they got chronic fatigue. And, you know, they keep going to doctor to doctor and nobody connects the dots that, hey, this could be Lyme. And depending on where you live in the world, you know, if you don't live in an area that's considered endemic, doctors don't even think about it. I mean, you know, I lived in Connecticut for almost 20 years in lines named after line Connecticut. I lived about 30 minutes down the road from Lyme, Connecticut. And when I moved to California, I was amazed the number of doctors here who had no clue about Lyme disease. And I hear this from patients. I work people all over the world. And in areas that I know there's Lyme there, doctor's like, no, there's no Lyme. I mean, in California, you know, even the CDC says we're the fifth fastest growing state for Lyme disease. They did a study last year. They measured ticks on the beaches of California that carried Lyme disease. So this idea that you have to be in New England and hiking and camping, that's the only way you can get it. It's been reported in all 50 states, including Alaska and Hawaii.

Yeah. And of course, you know people well before the pandemic anyway, people used to travel. So it may be that you acquired it elsewhere. Maybe it didn't come from your backyard. Yeah. So it leaves people in kind of a tough situation that, you know, my best advice is be your own best advocate. And if you're gut's telling you that something's off and you know, your doctor's not really doing that, that work, you know, find a good functional medicine practitioner that will and there are tests available that can kind of help hone in pinpointing if Lyme or other infectious agents are alleles. Again, part of the problem, you know, no testing is perfect, but there's enough out there that we can glean good information that kind of points us in the right direction and lets us know that this is, you know, part of what's bothering you.

Rodger Murphree, DC, CNS
So true confessions. I was one of those physicians 15 years ago, I guess not quite 15 years, probably more like 12 years ago, that I had a patient that was was doing great, had fibromyalgia diagnosis, living in California, living on the beach, a great lifestyle, developed all these weird symptoms about midway through our program, we were working together and I never could get her back to where she was. I never could get her stabilized. And finally, I just told her, you know, I'm so sorry. I just I'm not really sure what else to recommend. I never tested her for long. She's in California. That was so, you know, and it turns out about six months later, she's sends me an email with a positive Lyme test for my genetics.

And I'm like, Oh my gosh, I'll never do that again. So I've gotten so much better about and I look for, you know, as you mentioned, swollen glands. So do you get do you get swelling at random sore throats? Is your immune system compromised? You get a lot of colds full of sinus infections. Do you feel like, you know, your immune system is weakened? And those are some of the clues and I'm listening for and then some you know, so these are things you talk about some of the strange sensations that they describe. Those are my bells just start going out and I'm mainly writing down I Gen-X panel. You know we're testing this patient for that. So speaking of genetics, do you have faith in Lyme testing for my genetics or maybe maybe to somebody else?

Darin Ingels, ND
Yeah. I mean, I like genetics. I think they do. Good, solid tick-borne testing. I use another lab out of New Jersey called Medical Diagnostic Labs. I think they also do great testing. I like MDL a little better on that. People's insurance and I genetics does great testing, but it can be quite costly if you're doing extensive testing for people, but they run a great lab. I think the sensitivity of their test kits much better than what you're getting at your standard reference labs and understand. And when it comes to testing for Lyme in particular with the best of testing, it's still terrible. You

know, I think Lyme testing still messes misses a lot of people that have Lyme because we're measuring antibodies against the organism depending on when your exposure occurred. You know, we know that immunity naturally wanes with time. So if your exposure was a year, two years, five, ten years ago, why would I expect your antibody response today be what it was at the time of your exposure? It's going to be most robust shortly after that time. And because we measure quantity of antibody, know it's kind of like a home pregnancy test and a woman pees on a stick and you know, you get a faint plus sign in my pregnant and my not well it's measuring the quantity of hormone.

In this case, we're measuring the quantity of antibody. So what's crazy to me is that, you know, in 40 plus years of doing Lyme testing, we've never changed sort of the understanding of what the test really means. And we know that some of the antibodies that we test for are very specific to Lyme and some of them are not specific. So why don't we just look at the Lyme specific ones and not so much on the nonspecific ones and this idea, you know, to call the tests positive this Lyme Western blot test, you have to have two out of three exam antibodies. So exams that antibody we think of acute exposure or five out of ten IgG antibodies. Well, if you've got one Lyme specific antibody, isn't that relevant because it is specific. And if you've got clinical symptoms, so understand the diagnosis of Lyme disease is to this day a clinical diagnosis. It's never, ever been a lab diagnosis. If you go to the CDC website and you read about Lyme disease, it says right on the page. The diagnosis based on signs and symptoms, and particularly if you live in an area that's endemic for deer ticks. But beyond that, the lab test is just kind of confirming your suspicion. You know, the lab testing was never designed to be diagnostic. It was designed to monitor people that had known Lyme disease.

So these are the people that had the bull's eye rash, 105 fever, the headaches, the joint pain, the neuropathy and so forth. So, you know, to use this test diagnostically and this is where doctors fail miserably, is that they said, nope, your test came back negative, you don't have Lyme yet. You had two, three, four Lyme specific antibodies. You've got all the clinical symptoms. You know, you and I were both taught we were in medical school for walks like a duck and quacks like a duck. It's probably a duck. Yeah. So the same holds true. It's like if you've got symptoms, you've got to test with Lyme specific antibodies. You know, I've had people come back like with MDL, they changed their testing methodology a little bit, but the original Western blot they did, there's a 60% threshold. So they compare your blood to a control. So the amount of antibody you make should be at least 60% of the control. And that was said, I think, by the CDC. So the assumption is, again, if you have Lyme, you make a lot of antibody and I would get these reports back at 59%. I'm like 1%. That depends how much water you drank that day. So that's the difference. I mean, it's like being a little pregnant, right? I mean, you are. You are. So if you've got the Lyme specific

antibodies, you have clinical symptoms. What more evidence do you need to start treating people? And again, I've run into this with other doctors over the years where, you know, people even sometimes have a CDC positive test, but they live in California, they live in Alabama and they said, well, we don't have Lyme here. That's a false positive. Yeah. Oh, I was a clinical microbiologist before I was a doctor. I used to do these tests for a living, false positives or extremely rare false negatives? Extremely common. So if you get a positive test, there's a high probability it's true. And if you got the clinical symptoms, then I would definitely trade.

Rodger Murphree, DC, CNS
So what about the patient that comes to you? And they say, I've got all this pain in my knee and my shoulders are in my joints. Sometimes I run a fever, but when I take antibiotics, I feel amazing. What do you now? I'm just curious because I know what I think. What do you when you hear that? Is that something that triggers the idea that's probably like.

Darin Ingels, ND
Well, certainly something infectious. I mean, I have people where when they go on antibiotics, if I just had a patient yesterday that had the exact same thing and I was.

Rodger Murphree, DC, CNS
Not bringing up.

Darin Ingels, ND
This infection all of a sudden, all his other systemic pain went away. And I'm like, Well, it's pretty telling. It's probably at least bacterial now. Is it Lyme, is it strap, is it Bartonella? You know, we got to dig a little deeper to figure that out, right? But at least it's pretty telling. Now, there are some antibiotics that do have a little bit of anti-inflammatory benefit. Is it possible they got some of that anti-inflammatory effect of the antibiotic? Sure. But if you've already been on Celebrex and procurement and all these other anti-inflammatories and it didn't really do much, that's probably not what's happening. It's probably you're actually addressing this infectious agent.

Rodger Murphree, DC, CNS
Yeah. What would you say is probably the most common bug that people are carrying around, opportunistic bug that gives them trouble. Is there one you see in your practices? Oh, wow. That's common.

Darin Ingels, ND
You know, it's really common is mycoplasma. So many people. Mycoplasma is it's technically a bacteria, but it's what's called an A cellular bacteria. It doesn't have a cell wall. So it's under the category of bacteria, but almost behaves a little bit more like a virus and harder to treat than other types of bacteria. But we've got mounds of research on how mycoplasma is a trigger for major connective tissue problems. It can cause joint pain, muscle pain, uveitis, inflammation in the eyes. I mean, all sorts of different body parts. The brain can be affected with mycoplasma.

And because it's so easy to get, you know, especially during the fall, winter time, it kind of travels when the cold flu seasons around. So, you know fall winter someone coughs, sneezes on you get exposed and you may never get, you know, typically mycoplasma causes walking pneumonia, you know, where people cough and hack and the walking wounded, you know, they're are well enough to go to wherever they don't feel great. And this can go on for weeks to months. Months. Yeah, but there's a lot of people that never get walking pneumonia. It bypasses the whole respiratory thing and they just go right into having, you know, these connective tissue problems. And again, we know that mycoplasma is a major trigger for autoimmune disease. Yeah, so that's one against simple blood test. Every reference lab in the world runs that you can run IGG and AGM antibodies to mycoplasma. And again, sometimes we're surprised we'll see this high titer of someone who's got no respiratory symptoms, but they got terrible, you know, joint muscle pain.

Rodger Murphree, DC, CNS
They're which goes back to the terrain, right. So what can you do to protect yourself? So what are some of the tips you can share with the audience about how they can boost their immune system, keep it from being over balanced? You want to, but how can I guess so? That should be part of the too. How do they keep it balanced and yet optimize?

Darin Ingels, ND
It's really quite simple. I mean, it's like basic foundational health principles. I mean, for me, diet and gut is everything, you know, to throw all of these other pills and supplements and medication until you've got your diet and gut functioning well, it's going to be hard for all these other things to really be as effective as you want them to be. You know, you can't outpace a terrible diet if you're living off junk food, processed food, fast food. I understand the convenience and we're all busy and it's easy and know tastes great. But if you're not really eating nutrient dense foods to feed yourselves and more importantly to feed your microbiome, we know how important your microbiome for controlling your immune system, for controlling that to age, to balance, you know, pretty much every chronic disease. Now that I read about seems to have some tie in to our gut bugs. So if you've got a history of a lot of antibiotic use and maybe your

gut microbiome isn't what it should be, again, diet influences that we know a lot of medications, if you've been in a metformin for like insulin resistance, we know that has an impact on your gut microbiome. So all of these factors, you know, toxicity, you know, can influence that. So we need to make sure that the gut is as healthy as possible. You're eating clean, hopefully organic, nutrient dense foods. And, you know, every time I got a side note, you know, every time I talk about organic, I can hear people's eyes were on their head like, yeah, that'd be great. If I could afford to eat a Whole Foods every day, I would. And that's not realistic. But the reality is that the largest retailers of organic are Costco and Target.

Rodger Murphree, DC, CNS
As you say, that's changed. I mean, you can go to Walmart now.

Darin Ingels, ND
You can go to Wal Mart. I mean, I go to all my grocery stores here in Southern California, just the regular grocery stores. Now, they all have an organic section that's cheaper than Whole Foods. Trader Joe's has a lot of stuff. You can buy frozen organic vegetables, which are even cheaper. So if you got something that's not in season, yeah, it's still a healthier way.

Rodger Murphree, DC, CNS
You're healthy.

Darin Ingels, ND
Clean food and for a lot less money. So it's not like the old days where, you know, you had to go to whole paycheck and blow half a paycheck on getting, you know, a stock of cauliflower in like two apples, you know, that's become more affordable. And again, you know, for people who are really need to manage their budget, you can go through, you know, the Dirty Dozen, you know, Environmental Working Group every year publishes like the top 12 most toxic food, say, okay, I'm going to commit to at least these 12 foods. I'm going to eat organic and then everything else if I can. Great. And if I don't find I like greens, collard greens, kale, these kind of things. When you look at the price of organic and conventional, there's really not a huge difference. The organic is still pretty inexpensive. There are other things that can be a lot more expensive. But again, you can pick and choose based on that EWG list.

Rodger Murphree, DC, CNS
Yeah, well, you can't get healthy or stay healthy with an unhealthy diet. You just can't. I mean, that's just what we eat turns into us and you're either going to be healthier or you're not. But yeah. So the you mentioned the Dirty Dozen, so you can Google that. And then I'll tell you the

foods out there that you really want to steer clear of, like kale, which is a big thing. Now everyone's eating kale, but you don't realize if it's not organic, it's some of the dirtiest stuff you put in your body and then the clean 15. These are things that you can eat and not be so concerned. But and the sicker you are, I think the more vigilant you have to be about cleaning up your diet, the healthier you are. You know, I think you can be a little bit more liberal. That's not to give you a, you know, a juicy rationalization to eat a bag of Cheez-Its and tub of ice cream every night. But, you know, it depends on where your state of health is, for sure. So you mentioned diet and in the gut microbiome.

So we look at the gut. One of the things that we know, I mean, that's the first line of defense, really. I guess our lungs and then our gut, you know, we're taking foods in. And you think about how we exposed to the outside world. One way is the foods. That way we're bringing in potential toxins and bacteria and viruses and all kind of things. But the gut is designed to be the first line of defense. In fact, it's our biggest immune gland, right? I mean, our biggest immune organ now and the others think how secret we're go is. The other thing Health Secretary, a part of what it does is it recognize any kind of foreign invader and helps to destroy it. But what we know is stress can compromise. Secretary AGI One outburst of anger or a stressful episode can sabotage your secretary by 40% for up to 2 hours. Yeah, well, and if you're in a stressful job, in a stressful marriage, you're just in a stressful lifestyle and you're not taking steps to address that. You're going to be vulnerable. That's just that's just the way it is.

Darin Ingels, ND
Stress does generally nothing good for our body. And again, you know, I'm someone living with an autoimmune disease. I have multiple sclerosis. And I know personally when stress comes on, I feel it. I feel my symptoms get a lot worse. And I see it in my own patients with fibro and lupus and rheumatoid arthritis. It's like when you've already got an autoimmune issue or, as I say, an immune issue, the impact of stress. And look, you know, stress isn't always negative. I've had people that they got a great promotion at work. They're moving to a place I've always wanted to live. These are good things in their life as a whole, but they're still stressful and so your body doesn't always discriminate. What's negative stress versus positive stress? It's still stress. It still impacts your adrenal glands and your cortisol and that whole cascade of chemicals that are involved. But it can undermine our immune system.

It can, you know, sometimes lead to more inflammation. So our ability to not just manage stress but master stress, you know, it's a bit of a challenge. And I think there's so many great tools out there nowadays that, you know, you can use in Outlook meditations. Great. I got to be honest, I suck at meditation. I don't enjoy it. It's very hard for me. It is for a lot of people. When you first get

started and everyone who meditates for years will tell you, yes, when you first get started, it's kind of tough. But then, you know, you learn how to do it and it's yeah, but I still like things that are more like guided. So there's things like hard math. You know, hard math is a program where it's a little clip that you connect to your phone and it basically helps to teach you deep breathing. But they've done a ton of research on this and little. Within minutes you can go from being stressed to relaxed, so you can train your brain to get out of that sympathetic state, that fight or flight very, very quickly in a matter of minutes. That's doable. I think, you know, it's kind of like with exercise, like, okay, you need to go to the gym, you know, 2 hours over, three times a week for people who are already sick and overwhelmed, they're just thinking it's just one more frickin thing I got to do. But was there something you can do at home for 5 minutes? Oh, yeah.

Rodger Murphree, DC, CNS
Yeah.

Darin Ingels, ND
That's doable. So I like something like that. You know, Annie Hopper's DNR as dynamic neural retraining systems, another great program. We've had a lot of people do that again, just kind of get some out of this fight or flight helps retrain their brain, their limbic system to not like go full tilt every time there's some kind of stimuli that they get in that state and they just can't get out of it. When we stay in that sympathetic overload, you know, the body restores and repairs itself. When we're in our most relaxed state or that parasympathetic state. And this is why sleep is so important. If you're not sleeping well, you know, it's hard for your body to repair and restore itself. And so many of our fiber folks suffer from terrible sleep because they're in pain. They're uncomfortable. So we've got to find that balance that way to help improve their quality of sleep, because all the good things want to happen to our body aren't happening the way they're supposed to. So just one more one more layer that we need to look at.

Rodger Murphree, DC, CNS
And, you know, this whole thing about stress, I always talk about the our power. I encourage my patients to and maybe it's a quarter hour, but I think you can find an hour or two to nurture yourself to do meditation, and you can be terrible at it. I'm not I'm not exceptionally good at it, but I've done it for a number of years. But just having that quiet time and where really focus on you, you know, just just quiet everything down. So your body has that opportunity just to tone everything down. But I you know, after three years, we have talked about it a little bit. I finally got covered. I mean, I've done great. I've been around everybody sick with all three of my kids have had it twice here, right during the holidays. I had a lot going on burning the candle at both ends, both socially and then work wise. And my wife came home from New York. She was up in New

York with my teenage son visiting schools up there, came back. She never gets sick, but she came back. So I just thought, well, she's just tired, you know, because you never get sick. Well, that later on that evening, she's fever spiked up and it's like, why don't we got so complacent. We need to check.

And next thing you know, two days later, I'm supposed to fly out and do a be interviewed and attend a forum out in Vegas. And I was sick as a dog. And it's taken me a month. It took a month for me to get over it. This was nothing like I'd ever experienced. I'm usually really healthy, but. But my body was aggressively trying to get rid of this thing. And fortunately I knew, you know, I knew the protocols. I teach the protocols. I had a nebulizer. I did hydrogen peroxide, inhalation therapy, high doses of IV and C in a C, QUERCETIN All the things that I knew to do. You know what I teach my patients? If I had nothing, I could have gotten in some really serious trouble. But it brought home this whole idea walk the talk, you know, you know, if you're telling people to be careful about the stress and take steps to do it, you better be doing it yourself. So I really for me, it was a going learning opportunity. How important, you know, managing your stress is.

Darin Ingels, ND
Absolutely, yeah. I had a similar experience with COVID. I got it last June and it definitely set off my symptoms and made things a lot worse. Again. And I, you know, again, I eat well and I do all the things I know I'm supposed to do. And it still was a kick in the teeth. And I still feel like I'm recovering from it. But I know it would have been a lot worse had I not done the things that I had done. So, you know, again, I think it all kind of comes down to, you know, we're doing everything we can to get our bodies healthy. I think sometimes we get so hyper focused on one little aspect of things where we lose the forest through the trees and realize that there's a bigger picture in all of this. And if you just think about what steps do I need to take to get healthy? And in that, you know, again, I say this every time I talk, it's like, look, you know, as humans, it is built into our DNA to heal.

You know, you cut your hand, you know, it'll heal on its own. You don't have to tell it to do that to cells. No, it's programed to do it. And with rare exception, you know, do you get to a point where a tissue is so damaged it can heal? You know, you sever spinal cord that's one thing. But by and large, you know, a lot of these things have the capacity to heal. It's just what are the obstacles in the way that stopping that natural process from happening? And I'm certainly not offering that's a simple solution, but there are solutions and there are ways of looking at it. And again, it's just having someone on your team that's going to work with you to do that deep dove into looking at all of these factors that you and I have just been talking about.

Rodger Murphree, DC, CNS
Yeah. Is there a nutraceutical one supplement that you would be your go to supplement to help to build the immune system? They're certainly going to put you on the spot. What is one is hard right? But there's just one.

Darin Ingels, ND
Not hard at all for me. Magnesium.

Rodger Murphree, DC, CNS
Magnesium, calcium.

Darin Ingels, ND
Is the one nutrient you burn through the fast.

Rodger Murphree, DC, CNS
Yeah, that's true.

Darin Ingels, ND
When you're stressed, when you're moving, when you're thinking it's a cofactor in almost every metabolic pathway in the body. Again, if I got no gun to my head, I'd have to pick one magnesium B, the one that I wouldn't want to live out. And I just know personally, I feel so much better when I take my magnesium. Yeah. And if I skip out on it, I don't feel nearly as good. So if I had to pick one magnesium, be it.

Rodger Murphree, DC, CNS
So I would say vitamin C for avoiding affections and getting rid of affection. Just the whole role that vitamin C plays in boosting the immune system, generating hydrogen peroxide into the cell to destroy these different microbes. But personally, since you talk about that, I would say it'd be magnesium, too, and certainly for the fibromyalgia community, because as you said, it's in three and her body process was a natural muscle relaxer. It relaxes these tired, achy fibro muscles, but also relaxes tight colons, helps so much about prolapse. High blood pressure. It's part of the Krebs cycle. ATP generated energy. It's needed to make the neurotransmitters that are low in fibromyalgia, like dopamine and serotonin. So magnesium certainly would be one that you would want. But vitamin C is what I would have said.

Darin Ingels, ND
I got to give a plug to for vitamin D.

Rodger Murphree, DC, CNS
Well, yeah. So it's hard to choose one, right? So if you're buying the D levels low, you're in trouble.

Darin Ingels, ND
If it's all because it's a hormone again, because it is an immune modulator for anyone dealing with immune autoimmune issues. Yeah, that would be at the top of my list too.

Rodger Murphree, DC, CNS
Yeah. And that's and that is something I always encourage. My patients are just the general audience. Make sure that when every year when you're getting your physical, make sure you do get that vitamin D3 level. And if it's below 50, I would highly encourage you to supplement vitamin D3. You really wanted above 50. And typically, you know, 4000 5000 I use a day is is generally enough interesting that vitamin D3 is what I found over the years is that when it's low my patients who already have a low pain threshold, they find that their pain threshold is even lower.vPain is even more magnified and has a mental, mental mood effect. So we see that by many levels a little bit low. Their moods are low. And I can tell you over the years, just getting the vitamin D level up above 50, how many patients have seen that their pain is better? Certainly their immune system is better, but mood wise is better.

Darin Ingels, ND
Absolutely. Yeah, that's been our experience. You know, I lived in Seattle when I was in med school, of course, where, you know, the sun is a rare thing. And most of the year and vitamin D deficiency, of course, is very common and it affects people's moods. You know, seasonal affective disorder is a very real problem in the Pacific Northwest for that very reason. So, you know, getting them, you know, sunlight, getting out of Seattle, getting their vitamin D levels up all made a big difference. So aside from their mood effect, again, I just think it's such an important immune modulator that people need to be very cognizant of their vitamin D levels.

Rodger Murphree, DC, CNS
Yeah. And you know, you bring that up. And, you know, I used to think that if you lived in Birmingham, Alabama or Florida, some of the patients that I took care of and you're in the sun all the time, you didn't have to worry about it. But then when I started testing them, lo and behold, my patients in Florida had low vitamin D. I mean, it's rampant. It's everywhere. So just because you're in a sunny place in the world doesn't mean that you can't be deficient in vitamin D D3.

Darin Ingels, ND
Well, I think, you know, the sunny place, the world, they've done studies and you, Florida, Saudi Arabia, lots of sun. But People are either covered up or they wear sunscreen, both of which are very effective at blocking vitamin D.

Rodger Murphree, DC, CNS
Right? Right. Absolutely. So in wrapping things up, we've talked a little bit about infections. We talked a good bit about Lyme and maybe some of the differences between line and fibromyalgia and some of the common things that we see. I want to ask you a little bit about Marchand's, is this something that was just talking to me about that I had a patient last week, I was trying to explain the to her and it's tough. It's tough.

Darin Ingels, ND
Well, the mark ons has never been shown to be really it's part of the normal Flora Colleg negative staff is part of most people's normal flora. My only consideration for Americans is for people to have truly like recurrent sinus infection. But this idea that it is a major trigger for systemic problems, I've not found that to be true in my patient population. I don't test for it anymore. I don't find any value in it. Again, my concern for someone who's got chronic sinus problems where we're testing for anything that might be causing chronic sinusitis, we'll do that kind of evaluation. But the presence of Markon, which is again this Boag negative staff, again, this is part of most people's normal flora and I don't think is a major contributor certainly to something like fibro. Yeah.

Rodger Murphree, DC, CNS
And fortunately and I should say it the way I don't see it very often, but this individual is really I mean, it's obvious. It's very obvious what's going on is giving it a lot of trouble. But. Well, Darin, as always, we could go another hour. You know, there's so many things we could talk about. We didn't really talk much about other infectious problems. But I mean, there's all kinds of we need to talk much about mode, but we have people giving presentations on that. But I want to thank you so much for being on the summit, and I want people to be able to find out more about you. You got a wealth of resources on your Web site. So where do they go to learn more about you and your work?

Darin Ingels, ND
Yeah, they can just visit my Web site at DarinIngelsND.com. It's just D.A.R.E. N I N G L as R N is a NancyD.com and we'd love for you to join our community and get that information.

Rodger Murphree, DC, CNS
Great. Thank you so much for it. Really appreciate you being on here.

Darin Ingels, ND
Great. Thanks, Rodger.