Introduction and guest background

Hey everybody. Welcome back to this episode of Reversing Marcel Activation Syndrome and Histamine Intolerance Summit. I'm your co-host, doctor Tom Moorcroft, and today I am super pumped.

We are getting to talk to one of my closest friends and one of the most brilliant clinicians I know, Doctor Darren Angles, and he's a licensed naturopathic physician, author, international speaker, and a leading authority on Lyme disease and recovering from Lyme.

He has a unique perspective because he's a former Lyme patient who overcame his own three year battle with Lyme and after, you know, really failing conventional medical treatments and becoming progressively debilitated, he found that the use of diet, lifestyle management and natural therapies were really what worked to help his body heal and and really work with the natural healing process rather than against it.

And he then went on to apply what he learned in his own healing journey, with his own Lyme patients. And he found that they actually recovered a lot faster and with less side effects than that conventional approach.

To date, he's treated over 8000 Lyme patients with his novel approach and many of who have gone on to live really healthy, symptom free lives. Doctor, Engels has been featured on web MD, Mind Body Green, Be Well motherly, Thrive Global, and The Doctor.

Ron Hoffman's Intelligent Medicine Podcast. One of the most important things for me as a clinician to is that Doctor Darren also wrote a book called The Lyme Solution, a five part plan to fight, inflammatory autoimmune response and beat Lyme disease.

And the reason it's so important, is because he's giving you the tools that he uses in his own clinic to apply, you know, if you're not able to get with a practitioner or they can guide your practitioner.

So I'm really excited that that's out there. So I highly recommend you pick it up. And Doctor Darren, welcome. Thanks for coming to the summit. Doctor Tom. Thank you for having me.

Always a pleasure. Yeah. It's like every time we do this, it's like the the list of accolades get longer and longer. But I mean, I think, you know, it's really interesting.

Like today we're going to be talking about mast cell activation autoimmunity and the use of low dose naltrexone. The thing that I think that's really important though is, is I think I'd love to for you to share a little bit about your background.

You know, your story because as, as in your bio is, as there's so much that you've gained as a clinician from doing that. So I was hoping you could share a little bit more about that.

So you can help inspire some folks. Sure. Well, my professional background is I was a clinical microbiologist. I was a medical technologist. I worked at a large teaching hospital outside of Chicago.

And I did, you know, microbiology and immunology testing. And so I worked in a hospital lab for five years and then went back to medical school and became a naturopathic physician.

So it was really great having this background in pathology and microbiology, kind of going into my medical career. And then after I finished my residency in Seattle, I moved to Connecticut.

And for those who don't know, Lyme disease is named after Lyme, Connecticut. I lived about 30 minutes down the

road from Lyme, Connecticut, and I got bit by a tick and I had classic Lyme disease.

I had the headache and the bullseye rash, the fever. I mean, every symptom you read about in a medical textbook I had. And so I started on treatment right away.

And within a matter of days of being on doxycycline, I felt perfectly fine. The timing in which I got that was terrible, because I got bit two weeks before I opened my own practice.

And when I first opened my practice, you know, anyone who's ever owned a business know it's like that. I just I couldn't afford staff, so I was doing everything, and I was answering phones and seeing patients and doing my own books.

So it was just a lot of time invested into the business. And I was working five, six, seven days a week, you know, long hours and eight months into that schedule and really start to wear me down.

And I started noticing some of my symptoms were coming back. I started getting migraines again. I started getting back pain. I started getting neuropathy.

And I recognized right away that, you know, this was a relapse of Lyme in February, in the dead of winter in Connecticut. I had no illusion that I had a new tick bite.

Lyme disease relapse and recovery journey

So I started on treatment again, back on doxycycline, and it didn't do anything for a month. So then I switched to a zero myosin for a month that didn't do anything.

And then I started working with a local Lyme doctor who had known and, you know, I started just a regimen of different oral antibiotics and combinations.

And really, almost nine months into that schedule, I was only getting worse. My gut was a mess. Terrible. I was tired, I lost 30 pounds in that time span.

So I had known of a doctor in New York City named Doctor Zhang, and I had seen patients over the years that had worked with him. He's a medical doctor from China and works as an acupuncturist in Manhattan.

So I went to see him, and he started me on a regimen of Chinese herbs. And in Chinese medicine, herbs are always used in combination, and they're designed to work very synergistically with each other.

So, you know, I started on the herbal regimen and, you know, he also gave me kind of my wake call that, you know, you're not really taking good care of yourself.

You know, you got to eat better. You got to sleep better, do all these other lifestyle factors which you know, are so important and getting well. And once I took that to heart and started, you know, on the herbal regimen, within a month, I felt 80, maybe 5% better.

So, you know, from there, I think to get that extra 15, 20%, it still took another two years again, of really staying on top of my diet and sleeping better and starting to move my body more.

But eventually got to a point where I was 100% symptom free. So, you know, it was my own personal experience. Again, I just started really applying it to my patients and realizing, you know, that, you know, Lyme disease is more than just kill the bug.

It's really looking at the terrain. It's looking at the whole person that's looking at, you know, diet and lifestyle and trauma and all these things that kind of stop us from getting well.

And now having treated, you know, thousands of patients later, I see, you know, that this has been kind of a successful formula in helping people get, well, nice.

You know, I think it's so interesting that, like, you know, for me, it's a similar story. You know, it's like you have it so you understand better, you know, in and and in our summit now we're talking about, you know, mast cell activation syndrome, histamine intolerance.

But also like a bit of autoimmunity. And I was wondering if, you know, through, through both your clinical work, you know, and your personal experience, you know, can you kind of give us some background on how infections might lead to autoimmunity and how some of those other factors that you just talked about may play a role in either creating autoimmunity or helping us to heal from it.

Yeah. Well, you know, we know that infection as a whole is a major catalyst for autoimmune disease. And we have mounds of research showing that there's a concept in immunology that called molecular mimicry.

And what that means is that there's a molecule on a microbe, whether it's a bacteria, a virus, parasite, fungi that looks something very similar, that might be in our own body or our own tissue.

So as our immune system amps up to fight the microbe, it accidentally starts targeting our own tissue. And look at Lyme disease in particular. And now we've got research showing that, you know, there's an autoimmune response to the white and gray matter of our brain.

We can have autoimmunity to our peripheral nerves. We can have autoimmunity to our joints, our connective tissue. So you know, Lyme specifically, we know targets these different tissues.

So a lot of the symptoms that people experience with Lyme disease and other chronic infections, you know, sometimes it's really not the infection itself that's causing the problem.

It's the autoimmune response that really creates the symptoms. I think, you know we're in the era of Covid, right? So again, the virus itself wasn't the problem.

It's the immune response to the virus that causes all these symptoms. The cytokine storm that you know you've heard about on the news is the immune response to the virus.

So again, often the immune response to the microbe is really what creates a lot of the symptoms and the tissue damage more than the microbe itself. And you know, along the lines of that, you know, we also know that microbes can become a, a major player in shifting the balance of our immune system.

And I you know, I'm sure you see this in your practice too, Tom, that, you know, we've got these people that know never had an allergy, never had a sensitivity in their life after they get exposed to Lyme disease or one of these other tick borne illnesses, now they become hypersensitive to their world.

They can't tolerate certain foods. They can't tolerate mold or pollen or dust. And we know that, you know, we've got this part of our immune system called T, h1 and H2.

So for T helper cells and T helper cells are really the conductors of the immune system. And T one cells by and large are really kind of direct scavengers of your immune system.

So if they see a virus or a bacteria, they go right after it and get rid of it. But your H2 cells don't really do that. They're sort of the ones that stay and say, hey guys, there's a problem over here.

Somebody needs to do something about it. And often they signal B cells, and B cells are the part of our immune system that make antibodies. So that T H2 pathway is really an antibody driven pathway.

And we know that with Lyme disease that, you know, that can shift that balance of t h1 h2. I mean, we kind of think

of it like a seesaw. You know, one goes up, the other goes down.

In reality, it's way more complex. Right. But for our purposes here, you know, I'm not trying to make you an immunologist, but just so you understand that this, this balance between T1 and T2 is very delicate.

If we upset that balance and you become t to the dominant, your disposition towards allergy, towards autoimmunity goes way up. And often we see a little bit of both.

We'll see that allergy. We'll see that mast cell activation piece. But we'll see that autoimmunity piece. And you know really for both conditions. What's kind of frustrating as a clinician and as a patient is that we just don't have a lot of great tests to measure, you know, what's going on.

And we know from the research that this autoimmune process happens. But as far as I know, there's no commercial lab that measures that. And for someone who's got, you know, histamine intolerance or mast cell activation.

And by the way, you know, methyl activation is really just a fancy name for allergy. You know, we've had the allergy for years. But you know what, right.

Things that trigger mast cells. You know, it is some sort of allergen that is becoming a trigger. And that allergen could be something like mold or polymer food, but it can be something like a microbe.

So microbes can be just as much of a culprit as anything else in your environment. Well, and I think what you're saying, if I, if I hear you correctly, Darren, is that the once you get say maybe an infection, this can trigger sort of an immune dysregulation that leads you to having having that sensitivity, having like this, you know, almost like a Marcell dysregulation.

So it's not to say that like, you know, mass activation syndrome is not this really important title that gives us a place to look. But it's just saying like, let's look back and say, hey, these infections are triggering dysregulation of the immune system, which in turn the mast cell system is part of that.

And that's potentially why we're getting this increased sensitivity and increased reactivity. Absolutely. And what what's really kind of messed up in this whole process is that even if you're successful at eradicating the infection, often you're still left with that, that dysregulated immune system.

So I find in my practice now, we're often having to go back and still doing other things to get that immune system back in better balance.

Infections, autoimmunity, and immune dysregulation

So, you know, it's almost like, you know, the way I think of Lyme disease is kind of like, know if you're standing on the lake in the morning and it's a nice, quiet lake and a motorboat goes blowing by, the boat can be long gone.

But the waves are still rippling. And I think Lyme does that to our body. It kind of creates a swath of destruction because it can dis regulate our immune system.

It can just regulate our hormone system. It can just regulate our nervous system. And even if we get that bug under control, often we have to go back.

We have to fix the hormone system. We have to fix the immune system. We have to fix spots in these other neurological issues. So, you know, this, of course, is what makes our job terribly complicated.

Is that right? We're trying to put out a thousand fires at one time. Obviously, we want to target the organism because we know that continues to perpetuate a lot of these other issues.

But even for successful at that, we still have to go back and do all these other things to get the immune system functioning better. You know, I think the point you bring up is so important.

Like so yes, folks, you've heard it here. One you can treat and annihilate Lyme. And yes, even if you are successful at doing that, you could still have other symptoms.

Right. And Marcus can be a huge piece of that. But a lot of times you're having a little bit of each. So Darren, like in the situation where like, you know, we have Lyme Bartonella and persistent and maybe even mold like, you know, we have a mold exposure.

We can't, you know, burn our house down and rebuild it from the ground up in a completely dry building. So we're having ongoing exposures, whether that's an external exposure or an internal exposure.

If this is triggered, you know, this this dysregulation of the mast cell system are the things we can actually do, you know, because it's like I mean, like some people like, oh, you got to treat the Lyme in the Bartonella first, then you got to treat the mold first.

Oh, you got to treat the mix. But they're also intermingled like, how do you even start? Well, I think, you know, for me it's really individual. I think we have to look at the individual person and kind of set the priority of where do we see are the biggest, stressors on the body.

And, you know, I know when the Lyme world, we tend to hang our hat that everything's related to Lyme disease. Again, you know, between Lyme and mycotoxins, the mold, you know, there's an 80, 85% overlap in symptoms.

So it's very difficult to distinguish which symptoms are related to what condition. Well, and also like you're saying like in the Lyme world, we say it's the Lyme in the bark we have to do first.

But if you're a mold person, you have to do the mold before you do anything else. So if you're Kasper, you got to do that first. Yeah. Right. Well, I, I, I guess maybe respectfully disagree with those out there that feel like you have to.

Clearly I will too. You know, I my feeling is you got to deal with all of it. Because if it's all creating a problem for you, you know, again, you're trying to put out multiple fires and there's no reason you can't do them simultaneously.

So if someone's got, you know, mycotoxins, they you know, we're working to mobilize that a tissue, get it out. If someone's got Lyme or tick borne illness.

We're dealing with the infection. We're dealing with the terrain. If someone's got mast cell activation, you know, in my practice, we do a lot of immunotherapy to help modulate the way the immune system responds to the trigger.

So, you know, we're we're trying to do it all simultaneously because they're all impacting your health at different levels. And I think this idea of just deal with one.

Well, let's be honest, I mean, dealing with Lyme disease alone, that could take a year. It could take longer. And if you're going to wait to treat all these other things for another year, in my mind anyway, it's just really delaying getting your health back faster.

So again, I, I've not really had any issues in my practice of, you know, doing multiple things at once. But again, you know, if you've got someone who's really hypersensitive, you just have to go in with kid gloves, start small, work your way up, make sure people tolerate things first.

We know with mast cell activation that a lot of these folks, you know, are a history intolerance that, you know, herbs we use, other things we might use might set them off.

So again, it's just really about being delicate with the person. But I think, you know, for people who are watching this and tuning in, you know, you really have to look at you and don't compare yourself with other people.

You know, I see this all the time. It's like, well, I read online that so-and-so has been doing this and the other person doing that, it's like, you are you, your experience is your experience, and it's going to be different than other people.

And what one person does for their Lyme disease or mast cell activation might be very different than what you do. So again, I really try to tailor it to the individual and, you know, meet their needs at the highest level.

Yeah, I think that's one of the the you really hit the nail on the head there with meeting the person's needs as a unique individual, using a strong foundation that's based on this understanding of of what commonly happens in these patients, but also not comparing yourselves.

I mean, when you when you compare yourself to other people, the difference is genetically they're different. Their environment is different, their life history is different.

The treatments they've had are different. There. There's, you know, so funny. Everybody talks about MT FA and all these other things like it's this holy grail.

But like all these things are different between you and the other person. And you have to keep in mind, like they've gone through such a different, different path to get to where they are, that a lot of times that last thing you did that looks like the, you know, the thing that fixed everything is actually just sort of looks that way because you actually had to do the 12 other things that you previously did to get for that one to work.

So I think it's really important. Yeah. Well, and you know, I again, I see this happen a lot when people go online and again, they're reading about what other people are doing in their treatment.

And again, you know, we're we're just so unique by so chemically. We're unique genetically. And we have to honor that, you know, at what works for one person may not do anything for you and, and vice versa.

So that's why I think it's really important that you have a relationship with your health care provider. You're having this conversation and that, you know, you're layering in things slowly and going in and, you know, gently.

But there is a way to do it that I think, I think you can address this multitude of health issues simultaneously without rocking the boat so much. You know, that it makes you feel terrible.

I'm not in the camp that you have to get worse to get better, right? That does happen. But I think if you're being mindful about your approach and again, going in things very slowly, make sure you tolerate things that there is a way to do it, that you can move forward without necessarily having to feel terrible in the process.

Yeah. And I mean, I think it is an individual approach and really saying, hey, like, you know, telling our patients that it might take a while and, and sort of taking a while.

And, and for me, I feel like the beginning is the most important part. And then after you get past the beginning, all the rest is the most important part, obviously.

But but it's like it's so key to set a really good groundwork and under start to have your allow time for like your practitioner to actually understand how your unique physiology expresses itself under the duress of all these different, you know, environmental toxins, you know, so I think it's important when you are looking at folks, I mean, in this day and age, we talk about so many herbs that help us in muscle activation.

We talked about so many herbs to treat Lyme, the Bartonella. We have a lot of research showing that these herbs now are actually great persisted treatments, you know, so helping us better get at chronic Lyme.

But you know, are there any herbs that you would just say like these are really histamine promoting or dysregulated that you might avoid, or is that just unique to the individual as well?

Yeah, it's a it really seems to be I mean, I have some patients that, some herbs that just seem to set them off for whatever reason. I think it sometimes isn't the error of sometimes I think it's the way the herb is prepared, you know, I might find someone who's really, you know, histamine intolerant.

Maybe they don't do as well with tinctures because of the alcohol based. I mean, I do better with capsules or powders. So, there are some herbs to tend to set people off for reasons that honestly, I can't well, explain.

So again, if I've got someone who's really hypersensitive, my preference is always again, start small working with established tolerance first. I tend in that point to use single herbs versus using combinations for that very reason.

If there's an herbal combination like we know in the line world, there's a lot of great companies that make herbal combinations that might have eight, ten, 12 different herbs in it.

The problem with that is if they have a bad reaction, I don't know that it is a my people. Yeah.

Treating mast cell activation and sensitivities

A so this is where I try to use single herbs if I can just so that we can really isolate, know if there is a problem. Which one is it? Okay. Yeah. You did well with these two.

You didn't do well with the third. Let's swap that out for something else. So again it gives us a lot more latitude to again to really tailor what your body tolerates.

No. Yeah I think I, I feel the same way. And it's like you get that better control and you can individualize it a lot more, you know, and once the people have more stability, maybe move into some of these other things.

You know, when we think about treatment, I mean, where do you start? And then I know that, you know, are, well, we want to talk about some low dose naltrexone today because you're also an expert in that.

But you also mentioned the immunotherapy. So maybe like if you can give us kind of like an overview of like where you might start with some if you're looking at someone with mast activation, if there are, you know, something beyond just the completely, individualized thing.

And then how do you use immunotherapy and what the heck is it? Well, I think in terms of where we start, for anyone with mast cell activation and or allergies is the gut.

You know, so much of the immune system is derived from the gut. We know that up to 80% of your immune system comes from the guts of the guts not functioning well.

It's going to be hard for the rest of your immune system to function well. So first and foremost, you know, gut health is, you know, of course, what you're putting in your mouth diet is critically important.

But if you've got leaky gut, if you've got other types of gastrointestinal problems, making sure that you're working to optimize that, beyond that, you know, immunotherapy, you know, there's different types of immunotherapy that that term is used in a lot of different ways.

I mean, they do immunotherapy for cancer treatment. They do immunotherapy like allergy shots. If you go the allergist because you're allergic to dust or ragweed, that's a type of immunotherapy in our practice.

You know we we tend to focus on really two types of immunotherapy. One is called sublingual immunotherapy. So sublingual just means under the tongue. So we do different types of testing to help determine what people are allergic or sensitive to.

Then we make up drops that they put under their tongue. So the concept is very much akin to doing an allergy shot. We know, you know, in 100 years of doing immunotherapy, that by giving you the substance that you're

allergic or sensitive to at the right concentration, it actually starts to build your immune tolerance.

And if you think about allergy at its core, however, you're defining that allergy sensitivity and tolerance. It's really an overreaction of your immune system.

You know, aside from the enzyme issues like, you know, gluten intolerance or lactose intolerance, that's a different problem. But these other reactions is an overexpression of your immune system, your immune system's not tolerance of the world around you, which doesn't make sense, right?

You know, we're all exposed to pollen and dust and things like that. So why do some people react and other people don't? It's really loss of immune tolerance.

So what we're really trying to do is reestablish that immune tolerance, retrain the immune system to say, this is part of my world, this is normal. We don't need to overreact to it.

And so often over time, what we're doing is we're basically slowly building your dose. We give you a little bit and we give you a little bit more. We give you a little bit more, and we keep increasing it till we get to that threshold where your immune system basically just stops react.

So what I like about this therapy is that it has the potential to really cure the problem. Now granted it often is a long term therapy. Like if you go to get allergy shots, they'll tell you usually it's about 7 to 9 years of doing allergy shots before your allergies are cured.

I find with sublingual therapy it happens a lot faster 7 to 9 years. It is a way, you know, like allergies, massage activation sensitivities. Now these are miserable for people.

They just completely becomes disruptive or can disruptive to your life. So I like the fact that this is one of the few therapies out there that I don't see as a Band-Aid therapy.

You know, if we're using antihistamines, if we're using Masshealth inhibitors, or if we're using leukotrienes inhibitors, whether it's natural or or prescription, these don't fix the problem.

They stop the symptoms, but they don't fix the problem. But immunotherapy has the capacity to actually fix the problem. So sublingual therapy again it's been widely used throughout Europe.

There's almost a thousand studies on it, very well researched in adults and children for various allergens. And then we do another therapy called LDA or low dose allergy therapy.

And this has been around since the 1960s. It was developed by an ENT surgeon in the UK. His name was Doctor Len McEwen, and he originally coined it called Enzyme potentiated desensitization, or EPD.

And what he really did is he took these allergy extracts and he diluted them far more than what they were using in conventional allergy. You know, if you get allergy shots, they use a 1 to 100, 1 to 1000 dilution.

Well, he started doing 1 to 10 million, 1 to 100 million, much, much more dilute. And he found that he mixed it with an enzyme called beta glucan. This is an enzyme that's naturally found in your white blood cells.

So the combination the two he would give us a little intradermal injection. So just underneath the skin. And he found again it was helping people with their allergies.

So we now have, you know, a pharmacy in the United States that makes these mixes. So the mix is the same for everybody. So there's food mixes, there's an inhalant mix, and there's a chemical mix for people that are chemically sensitive.

And the nice thing about LDA therapy is that again, the goal is the same. The goal is to help, you know, retrain the

immune system not to be so hypersensitive.

But with this therapy, you only do it every seven weeks. And not too bad. Yeah. So it's not terrible. Doctor Butch Schrader is, he's now retired. He was in Santa Fe, but he's the one that brought EPD over from the UK back in, I think the late 80s, early 90s, and started really teaching doctors here in the US how to do it.

So, you know, between low dose allergy therapy, LDA, sublingual therapy, again, we have a lot of noninvasive, safe tools to help retrain your immune system to not, again, become so hypersensitive to your world.

It only sounds like, you know, the the LDA, it's almost like homeopathy combined with beta glucosinolates, but with the LDA, or the the sublingual immunotherapy.

You're doing, you're actually giving like a little bit more because they've been done doing a lot like with like, you know, like allergy. Right. Like full on, like anaphylactic allergy, like giving people like peanuts if they're allergic to peanuts in smaller doses and increasing it and seeing they, they, you know, regain their immune tolerance.

Right. Yeah. So that's called oral immunotherapy. So yeah, in that case they're actually giving you the substance to your sense off. And they're doing it for a nut allergy peanut almond and so forth.

And they know they do it for other foods. So again the difference really is dose. So often with sublingual immunotherapy we're using anywhere from 1 to 100 up to one to about 80,000 dilution.

So sublingual more dilute than what you would use in conventional allergy shots. The nice thing about when we put it on the tongue is that you don't have a lot of reactive cells in your mouth, so because they go under the tongue, they don't go down the throat.

You know, there's a very, very low risk of having really any kind of serious adverse reaction. And again, you know, we've got a lot of data showing that it's an extremely safe therapy for children and adults.

That's that sounds really good. I think it's you know, it's nice too because it's like like you said, anytime you can find something that's actually potentially able to, you know, cure these conditions and to reboot the system so that your immune system can get back and re be re regulated, improve your immune tolerance.

I mean, getting us off, you know, someone off of medications is amazing like that. You know, the other thing that we wanted to, you know, really touch on because I know that, you know, there's, textbooks on low dose naltrexone and you happen to be one of the, you know, authors in said textbook, but.

So what what is this whole LDN thing? And why do we want to talk about it potentially in patients with massive activation or histamine intolerance? Yeah. So LDN stands for low dose naltrexone.

And naltrexone itself is a medication. It was actually originally designed to help get people off drug and alcohol abuse. So now tracks on it. Full dose basically binds to opioid receptors in the brain.

Kind of helps block it to get people off that, you know, kick of needing to use drugs or, you know, other, you know, alcohol. But what they found at very low doses, it has a very different effect on the body.

So low dose now track. So it'll bind to the opioid receptors in your brain very temporarily. And then afterwards, once they kind of come off that receptor, it then stimulates your brain to make your own natural opioids.

So it's been very helpful in people to have different types of pain syndromes. We've got, you know, several studies showing it helps modulate the immune system.

So at very low doses, no, it has this very kind of broad effect on our body between, you know, the opioid effect. So the natural opioid effect and this immune modulating effect.

And that's probably the most important use of LDN for a lot of us in clinical practice, is that if there's a way that we can modulated disrupted immune system.

So you can imagine that the application to mast cell activation, the application to it for any autoimmune disease, is there. And indeed, we see it's been, you know, the studies on Hashimoto's disease.

There's studies on inflammatory bowel disease. There's studies on autism. There's studies on different types of pain syndrome. Unfortunately, to date, there's no studies on Lyme disease.

So, you know, it's one of these things that a lot of us use in clinical practice. And we see good results based on what we know the medication does and based on what we know Lyme can do in terms of this autoimmune disposition.

So I'm hoping someday somebody will actually spend the money and do a study on LDN and Lyme. But the beauty of LDN is that, you know, the safety profile is excellent.

You know, we get very few people that have really any kind of serious adverse effects.

Low dose naltrexone for immune modulation

The biggest side effect most people experience if they do get it is they'll say they get really wild, wonky, vivid dreams. And we find that that happens sometimes people adjust to it after they've been on the medication for a little bit.

Other cases, we just have to have people take it during the daytime instead of taking it at bedtime. I mean, I'd say in my practice, I've got, you know, maybe less than 1% of people have to stop, but for whatever reason, they just again, they just don't seem to tolerate it.

Like anything out there, there's never, everything's great for everybody. You know, you always have those people that just for whatever their sensitivity level is, don't tolerate it.

But by and large, I find this is a very well tolerated medication. Again, it's typically compounded and, by a pharmacy, you can compound it and whatever dose you know is deemed necessary.

So often we'll start at very low doses and then titrate up slowly as we feel like people need it. The other beauty of it is that it's a very inexpensive medication.

You know, so many people, particularly with Lyme disease or even mast cell activation, are spending tons and tons of money on supplements and other medication.

And, you know, I know the pharmacy that we use that makes our naltrexone here in Southern California, I think a three month supply runs about $45. So it's very cost effective.

So it's nice to have something in our toolbox isn't going to break the piggy bank. Yeah. It I think it's a huge point because it's like, improves compliance.

You got to take it once a day. Cost is so much better when you can afford to actually take it. And it works, you know. Yeah. And I think our pharmacies 54 bucks you know.

So you guys got this beat but for 90 days. But but but it's interesting there. I look out for LDN pharmacies that do a lot of it because everybody can make it.

But I find there's a difference when you go to like sort of the higher level ones that do more and have better quality control. And so but some of our local pharmacies are like 75, $90 a month.

And I'm like, you know, so that not that, not that that's the be all, end all. But I think like you mentioned, it's helpful, you know, and for me, I find it like LDN is like has like you said, such a good safety profile.

And after that first couple of weeks may be where the dreams may or may not be present, so well tolerated and so safe. And I've used it a lot, actually, like in people who are, say, maybe on a different type of immune replacement or modulation, like I've had people on IVIg who got an initial benefit were no longer having a benefit, tried to stop it.

And, you know, then their symptoms flared up and I was able to have them stay on their immune modulator, get them on LDN, and then remove the immune modulator they previously failed coming off of.

So $15,000 a month versus 50 bucks for nine months, for, you know, a 90 day supply. So I think it's a really, you know, potent, you know, medication to be using.

So is there anything you don't use it in? I mean, like, well, yeah, I mean, again, I really kind of keep it for the people again, who are having some element of pain syndrome, any kind of autoimmune process.

Again, I've used it in kids with autism. So I again, it has a very broad application. But like anything else, you know, it's it's one tool in our toolbox of a lot of things.

But I think because of its excellent safety profile cost, you know, my experience with it is that there's some people who try it. It's just they don't get any benefit.

You know, they've been on it for several months. We've tried changing the dose. They don't feel any different. Okay, great. We've tried it. Move on to the next thing.

But the majority of people I use it with get some element of benefit that, you know, warrants continuing on. You know, I don't ever have anyone who's only on LDN and nothing else.

So again, it's just one piece to help manage things while we're working on all these other foundational gut issues and terrain issues. But again, it's just a nice, thing to have in our toolbox given, you know, the effectiveness and the safety of it. Yeah.

You know, I had some folks who, they give me a call and say, hey, doctor Tom, like this LDN stuff. I mean, I can't handle it, right? It's like, they're like, I'm so tired when I wake up the next day, and then they're like.

And, you know, it's because I'm up all night dreaming. So I just. And I have my own opinion about it, but like, what do you what sort of like that to me is a fairly common experience. But.

So what's going on there. Well, you know, again this is the one thing we know about LDN that happens is that some people get these really crazy, wild dreams.

And I've heard people say, I felt like I was dreaming all night long again. I'll often I'll just have people take it during the day. And that seems to kind of take care of that problem.

If they take it first thing in the morning, usually by the time they go to bed, they're not experiencing any kind of, you know, wild, vivid dreams anymore.

In some cases, we do have to lower the dose. I mean, there's a whole nother faction of the LDN camp that's ultra low dose naltrexone. So I think, you know, I think the standard doesn't naltrexone I think 40mg, if you're using it full strength and we're typically using anywhere from, you know, half to about maybe four and a half, six milligram.

So that's no low dose. Now I've got some people are using an 0.02 five milligrams. So you know again there's there's a lot of room to play around with the dose to see if something agrees with you better.

So even at low dose, if you feel like you're having a bad effect from it, you can always talk to your doctor about

trying an ultra low dose and again, see if you have a different effect.

Again, I find with anything, whether it's medication, nutrient, herb, I'm always surprised at how little sometimes it takes to move the needle in the right direction.

So it's not like more is better. And it may be for you, particularly if you're a sensitive person. A little goes a long way. I think it's also like catalyzing.

I mean, everything I've heard you talk about today is about helping the body be re regulated so that it can just do what it's naturally supposed to do.

And a lot of times I think of it as a catalyst. You just need that little push. And you may not need a huge push because you know more is not necessarily better, like you said.

And one of the things like I've noticed with the sleep thing is I find that people sleep deeper. And so a lot of times that fatigue does wear off and and just so people know, you're if you are dreaming, you're not awake, which so a lot it's just one of those things.

It's like, hey, that actually lets you know you are asleep. And I just want to share a quick little personal thing for some of the people who are doing it is I've always been very sensitive to my sleep cycle, and I'm very aware of kind of what's going on.

It's like there's times where I sort of lose the awareness, but then, like, I'm aware I'm dreaming, I'm aware when I'm really light, and if I'm really deep, I'm aware when I come out of it like I'm not just like, you know, almost awake the whole time, but I try to LDN just because I wanted to see what my patients were going through, because I didn't learn about it until after I had actually recovered from Lyme and the V. A., but I was so aware of how light I was.

And it's like I'm looking at your background and I'm like, I feel like your mouth is just out of the water, and every and your nose and everything else is underneath.

That's kind of how I felt sleeping it. Not in a bad way, but like, I was almost I was so close to being awake, but I wasn't. And so, you know, I didn't really need it.

So I it was just kind of like one of those biohacking experiences so that I could share with my patients. But I just thought it was interesting. And it's always nice to share with folks what your experience has been, so that if you feel like that would be someone where I and I also just did full dose, right?

You four and a half right out of the gate just because, you know, it was an experiment that somebody where I might bring down the dose or like you said, you know, even like take it during the day.

So, the cool drug. Yeah. Well, I personally take it and I have multiple sclerosis. And again, it's very well indicated for autoimmune disease. And I've tried periods of like stopping taking it.

And I do feel a difference if I stop it. So I've been on and now for years and no intention to stop it again. I haven't had any adverse effects. It doesn't interfere with my sleep at all.

But personally, again, I find it works. Well. It's awesome. I hope everybody understands why we have these conversations, because it's like when you look at it like what you, you know, hearing about molecular mimicry in the immune response, thinking about, like, immune tolerance and the loss of it or an immune, you know, dysregulation, I mean, it's all scientifically based.

And there's so many, simple things we can do to start to, to move the needle kind of as we wrap things up. I mean, what for folks with Marcel or, you know, activation syndrome, mold or even some of these other things where we do have the of deluge of everything.

I mean, I finally like when I speak with you, you combine like the, the hardcore science, the natural path approach. But then also there's this like element of like understanding how they are weave together and hope.

And so if you're going to share something that you know with folks in terms of like their hope for healing through all of this, what might that be and how could you guide them?

Yeah. You know, you got to be like a dog with a bone. You know, this is your life. This is your health. And don't be, don't be shy about, you know, find find the right team of people to work with you, so that, you know, you're getting the results you want.

I see so many people. Sometimes they just get stuck in a rut. They keep trying the same thing over and over, and it's not working. And it's just, you know, if you've been sick for a long time, it's really easy to get frustrated and kind of feel like nothing's working.

And, again, all you've learned is that whatever you doing isn't working for you at that moment. That doesn't mean you can't find something that will work better for you in the future.

So, you know, there's a great organization, the American Academy of Environmental Medicine, that trains doctors, practitioners how to do immunotherapy.

So, you know, reach out if you don't have someone currently in your team that can help you. Because, again, this is such a powerful treatment that can really help, you know, get rid of these sensitivities.

Nice. And what's what's the the if people are interested in learning more about LDN, what was that book that you, are coauthor in? Yeah, it's written by the LDN trust.

It's volumes one and two, and it's available on Amazon and all, book retailers. And yeah, I wrote a chapter on Lyme disease and LDN. Nice. So hopefully someone will pick it up and go, hey, we need to do research in that avenue.

Right? And if people are interested in grabbing your book or learning more about you, how can they go about, learning about those things and potentially working with you?

Sure. Easiest place just to go to my website. It's just Darren Ingalls, M. D. and is a Nancy Adcom and all my information's there. Awesome. I love it, brother.

Thank you so much for making the time, you know, to come and share your, both your, scientific knowledge and your street knowledge with, and bringing it all together, as you always do.

Just want to say thank you and everyone, I want to say thank you for joining us for this episode of the Reversing Marcel activation Syndrome and Histamine Intolerance Summit.

Until next time, I'm doctor Tom Moorcroft.