A Deeper Dive into the Respiratory and GI Mucosal Immune Responses Especially the Contribution of Dietary Triggers Transcript

(Transcripts are generated by AI and may contain errors)

Introduction to Dr. Tom O'Brien

Welcome. Welcome to another edition of Mycotoxins and Chronic Illness. Today, it's a real pleasure to, have a chance to get to know doctor Tom O'Brien.

I think one of the exciting things about doing this series has been the number of thinkers that I've gotten to meet and learning all the time. I mean, it's it's something that's.

Is this special? And it's part of medicine. It's the heart and soul of medicine that I think often gets lost. But doctors like Tom O'Brien, who have deep, deep dive deep into the underlying science and bring back to the practitioners like us.

The new way of thinking about things. Doctor Tom O'Brien has written several books. The Autoimmune fix. And most recently, you can fix your brain. And I think we're going to talk a lot about fixing your brain.

Because chronic illness almost always affects the brain. And so, doctor O'Brien, tell me, what just what? I guess I would like to know what. What got you started?

What got you excited about autoimmunity? And. And then later, the brain. Well, I'd have to go back 41 years. My my ex and I were unable to get pregnant.

I was an intern at the time, and I called the seven most famous holistic doctors I'd ever heard of and asked the office manager if I could speak with them.

And they all came on the line, said, hello, this Doctor Goodhart, how can I help you? And I'd say, hi. Many allow. And he said, yeah, yeah. What what can I do for you? I said, well, we can't get pregnant.

And I'm wondering where do you begin to look? He said, well, do you know what a category one is? I said, no, he said, learn. I said, okay, category one.

And every one of these doctors, they told me what their thinking was. I put a program together. We were pregnant in six weeks. My okay, that's my neighbors and married housing.

Asked if I'd work with them because they'd been through artificial insemination and nothing had worked. And I said, well, you know, I don't think it's going to hurt you.

How Wheat and Inflammation Entered the Picture

Sure, they were pregnant in three months, so I had to try it before I got out in practice. You know, and we were happy being pregnant. We tell our friends and our friends would tell their sister in Wisconsin, we lived in Chicago, and sister would drive down from Wisconsin to see me in my dorm room. And, and so we just wanted to help people and, and, you know, as you know, there's not much in medicine that's all or every but this was every every person that had reproductive concerns, whether it was premature ejaculation or unexplained miscarriages.

Every person had, as one of the triggers going on, some foods that they were eating that they didn't know were inflammatory for them. So they were fueling more inflammation.

And the most common food was wheat. And so that started me in 1979 on this journey about wheat and its impact in the body. And I did the Gluten Summit.

It was the first health summit online in 2013, and I interviewed 29 of the world experts and just dropped people's jaws. And to when when you hear the chair of hypertension at Vanderbilt University, talk to us about the endothelium, the inside lining of the blood vessels and how they create the the inflammation from eating wheat can trigger that endothelium to start calcifying.

And this is from the head of the hypertension. It's right. You know your jaw drops and so from there with this whole thing about wheat, I realized and I've been following Professor Alessio Fasano now for many, many years.

That's okay. Keep going. No, no, we we had him at a conference that we did in 2008. He was just just starting out and. Yeah. No, he he's quite Danone's keep guy, but he was quite he was quite a at that point, a very interesting young man.

And this is really important. You know, he now he's professor of medicine, Harvard Medical School. Yeah. Professor of nutrition, Harvard School of Public health.

Yes, yes, it's rector of the celiac Center, Harvard, and director of mucosal immunology, Harvard. The chair of pediatric gastroenterology at Mass general at Harvard, five positions where he's leading the direction.

Yeah. Any one of these positions, any one would be a lifetime goal for someone at the top of the field. Yes, yes. And he's always careful of what he says.

Always careful so that he's not misquoted. Yeah. A paper that he published last year says it all. Doctor Gordon says it all. All disease begins in the leaky gut.

The role of Sanji and that's the protein with leaky gut, the role of vanillin in the pathogenesis of chronic inflammatory diseases. And he outlined outlines the five factors in the development of all chronic inflammatory diseases.

And I consider this the paradigm that everyone needs to think about when something's out of balance, that you look through these lenses. Okay, let's look at the five pillars.

Genetics okay. You can't do anything about that. But genes don't turn on and off. Genes are on a dimmer switch and they dim up or you dim them down, but they rarely turn on or off, right?

The second is environmental triggers. That means and the most common environmental triggers. What's on the end of your fork for what you're putting in from the environment gets its hands on your genetics and the weak links in your genetics to turn them up for inflammation or turn them down for inflammation.

The third of the five pillars, the environmental triggers, create an altered microbiome in your gut. The altered microbiome creates all this inflammation in the gut, which creates number four, the leaky gut.

When you have the leaky gut, larger molecules get through the leaky gut into the bloodstream before they've been broken down. Small enough, they're too big.

They're called macromolecules. They get into the bloodstream and your immune system trying to protect you says, what's that? I can't use that to make a phone cell or a brain cell.

I'd better fight that. And now you get systemic inflammation from the macromolecules. And that inflammation manifests wherever your genetic weak link is.

That's very Kano's. Yeah, but very nicely put together. I like that very much. It's and the thing I always like to emphasize to people is that in chronic illness, it's usually not something that's trying to kill you.

It's usually your body's response to something trying to protect you, your own, your own response that's causing the damage.

The Five Pillars of Chronic Inflammatory Disease

And that's that's where medicine doesn't do well because we're still we're that's why we need thinkers like you who are looking at a little higher level rather than just find the trigger.

You know, you're one of the few guys who talk, who sees it that way and who's a teacher that, our immune system is trying to protect us. So the question is what to trying to protect you from.

And that's what you have to address is the environmental triggers as a primary component to any treatment protocol. Of course you want symptom relief.

Of course you do. But symptom relief is not going to fix the five pillars. If and the three in the middle are the ones that we've got complete control over and environmental triggers, microbiome and leaky gut.

Well, that's what I want to hear a lot more about because I, you know, controlling and understanding them is is not always easy, but I bet you've got but there's, there's a lot of of I guess that's what you're going to tell us about the, the easy ones, the ones that we can make a big difference in our lives with if we just pay attention to.

So how have you put this, this story together? So let me hear more of your story. So, this is the micro toxin summit. And so let's talk a little about that one, okay.

What we know now about mycotoxins, is there something in the environment whether, you know, I still remember it was the middle of the night I woke up, I was hungry, so I stumbled out into the kitchen.

I opened the kitchen, the refrigerator door. But I turned away because I don't want the bright light, you know, I don't want to wake up. And I kind of reach in there, and I grabbed the raspberries, and I.

And I close the door, and I'm eating the raspberries. I didn't quite em all. So I put some back, and I come back out the next morning and open it, and I see the raspberries have white mold on them.

Okay, I smell no. Oh, no. Oh. So we're we're exposed to more than my all time. Yeah, all the time. Fine. And what we now know about mold and mycotoxins is they create an exhaust.

It's called the metabolites of these micro toxins. They kill the good bacteria in your gut. And they feed not good bacteria in your gut. Creating a more inflammatory environment which determines dysbiosis, which then can cause the leaky gut.

And now you're off to the races with systemic problems the mold can get in systemically. The micro toxin metabolites get in systemically, they travel in the bloodstream, they go up to the brain, they go through the blood brain barrier.

So, the whole process begins with our microbiome in the gut. And what's your, do you have favorite ways of, looking at this, or are you just I mean, how do you how are you evaluating?

You know, what's the more inflammatory issue? I mean, you just have classes of foods that, you know, like I said, we know that most of the people are reacting to wheat and dairy sometimes.

But what's your way in? Well, there's two, practically every new patient I see. We I recommend two tests to begin with. And then whatever their symptoms are. Right.

The first one is called the wheat Zoomer. That'll be right. It's the blood test where you zoom in on the problem. And there's never been a technology, for accuracy like so.

Silicon chip technology, which is what this laboratory's using. There's never been anything so accurate. And, we rarely, rarely find someone comes back negative, even when they've been gluten free for a year or more.

And the sensitivity and specificity is so high, people are confused and it's cross-contamination. They're getting, inadvertent exposures, or it's because of something called molecular mimicry.

If you're sensitive to dairy and you don't know it. But anyway, you've you've taken wheat out of your diet and you eat the dairy, your immune system gets activated and you can still make wheat antibodies even though you're not eating wheat.

That's called molecular mimicry. Yeah. I just sometimes when you just stimulate the immune system, we wind up doing things like that, getting it, because we got into that problem with, the infections that we look at many times, we're seeing we think we're seeing a bunch, we're only seeing one, but we got the immune system activated.

So you're seeing so and you like this. This is that's very, very good. You found clinically the weak tumor is really critically important. Yeah. Because 78 to 80% current British medical journal of all the prebiotics in our diet in the Western diet today come from wheat.

So I mean, everyone is eating wheat every day and not everything in wheat is bad for you.

Mycotoxins, Mold, and Gut Disruption

The prebiotics in wheat that feed the good bacteria called the probiotics, the prebiotics in wheat feed the probiotics. So when you take wheat out of your diet, if you don't know how to do it properly, you and start eating gluten free foods, which is just white paste.

The result is you starve the good bacteria in your gut. You feel better at first because your inflammation goes down. But by targeting good bacteria for months and months and months and not replenishing with other prebiotics, the result is you start getting sicker in six months or a year than you were before.

It's very, very common. So you have to learn how to do a gluten free diet properly. And that is the healthiest thing in the world for you. Okay, so I'm assuming that you're not big on a lot of the, the, gluten free, replacement foods that people are buying off the shelves.

If I can be professional for a moment with this crap. They're crap. It's white paste. And there's nothing wrong with I. I'm half Italian, so I like. I like a gluten free pizza.

Every once in a while, maybe once a week or a month, I'm going to have a gluten free pizza, but I don't live on that stuff. Every day you and you have to learn how to replenish the prebiotics in your diet with healthy prebiotics.

That's a critical component of rebuilding the diversity of your microbiome to get a good, healthy microbiome. Yeah, yeah. And just to to to get me to to step back for a minute.

I mean, this the inflammation in the gut is probably one of the big, destabilizes that allows people to then become sensitive to mycotoxins because, you know, as we were saying earlier, when you eat those moldy raspberries, I mean, you know, it's we're exposed to mold and mycotoxins in a constant flow.

And we've we've discussed this, several times in people looking at testing and the issues with testing, how much mycotoxins are in the food supply. And but it's our ability to deal with them is what's really.

And your and your excellent points are just I mean and this is what I love is that I just wasn't aware of how much we depended, unless with our regular diets on wheat as a source, to keep what could be a healthy flora.

Maybe if the wheat had not been altered. Because if you remember, your whole experience started in 1979, 1980, you know, because it said infertility was not on a rampage until probably the 70s.

Really. That's what you know. Before that, it was fairly uncommon, right? Right. Well, back back in the 80s, there was one couple out of five. We're we're we're having problems now.

It's more that I don't know the current number, but it's, it's a it's a lot. And one out of five was high. I mean it just wasn't like that. It was unusual.

So you were you were you were seeing the beginning of the issues. And I just realized that, you know, I mean, there's a whole issue of what what's happened to the wheat supply as well as what's happened to everything else, because, like you said, you were Italian and people were doing okay.

Well, people didn't know, you know, our testing was not available. The only testing that still most doctors only use is to test for one of the, clumps of poorly digested wheat called alpha glide in.

And it's, you know, it's a good test, but there are 62 different components in wheat that trigger the immune system. Why are we only checking one? And unfortunately, that's all that was available in the 1990s and 2000.

And most doctors are still using those laboratories that came up with those tests back then. It's a good test, but it's not complete. So I think the problems with weed have been around for a long time.

GMO didn't come on the market until the mid 90s and that makes it worse. But that's not the culprit. The culprit is wheat. I mean, even the ancient strains of wheat like spelt, and they trigger the same immune response if you have accurate testing to identify.

But so that that's that is fascinating that, the problem has always been there. Just that what's changed? Well, something has changed because I think we still don't have as many autoimmune diseases, right as we have now.

So we definitely changed the environment. Yeah, I can tell you what's changed with the autoimmune diseases. I believe, humans never before in history have been exposed to all of the chemicals that we are now exposed to on a daily basis.

It was the, toxic substance control Act of 1976, which is still the regulating federal guidelines for the introduction of chemicals into our environment.

And it's 247 pounds of chemicals per person per day, manufactured or imported into the United States, 247 pounds. It's 550 pound bags for every person, every single day, of these chemicals that are being brought into our environment and, as you know, but our listeners might not every newborn baby that's tested has over 200.

Testing for Food Sensitivities and Leaky Gut

Some studies say 280 chemicals in the umbilical cord blood at birth that are not supposed to be there. And many of them are neurotoxins and that's only the ones we can test for.

Because that's why because those tests, the laboratories don't do those tests. They're very sophisticated tests to identify the chemical. Yeah. And they said that there was some risk per person.

Yeah. There are mass spec tests. And I always tell people you only find what you know, what you're looking for with a mass spec. If there can be something toxic in there and you just won't see it unless you know to ask to look for it.

So it just lets us know this is a huge, huge issue. But and I love the way you're tying it together because the the get it. This is going back to the gut because I want to let you go.

I'm stopping. So keep going. So you're right. My baby wheat is your biggie. You know, if I may, yeah, there's one study I'd like to give as an example, 2016, in Chicago, 346 pregnant women in the eighth month of pregnancy.

They collected the urine, and they ran urine tests looking at five different types of phthalates. Sally. Two chemicals used to mold plastic light and one many of us have heard of is BPA.

And they categorize the results of the urine test into fourths, the lowest for the women with the lowest amount, the next amount the third and the highest amount they then followed the children of these pregnancies for seven years, and when the kids turned seven years old, they did Wechsler IQ tests on them.

The official IQ test rate. There's not much in medicine, that's all. Or every this was every every child whose mother was in the highest quartile of phthalates and urine in pregnancy, compared to the children whose mothers were in the lowest quartile.

Every child over here in the highest quartile, their IQ was 6.7 to 7.4 points lower. Well, that doesn't mean anything to anybody until you understand the one point difference that IQ is noticeable.

A seven point difference is a difference between a kid working really hard, getting straight A's, and a kid working really hard, getting straight C's.

This kid doesn't have a chance in hell of ever doing good in school, because mom was high in phthalates in pregnancy and didn't know it. Now just go to Google and type in phthalates and neurogenesis, nerve growth.

Here come the studies. Yeah. So where did mom get these phthalates? Well, nail polish within 4 to 5 minutes. The family to nail polish in your bloodstream.

Now, there's no evidence that the amount of phthalates that leach out of nail polish into your bloodstream are toxic to humans. That's what the Toxic Substance Control Act demands is, right?

You show that these minuscule amounts harm humans. They don't, but they humiliate for 25 years, for 30 years, or the plastic storage to containers that you put the leftover food into the refrigerator the next day.

The chicken's got phthalates in it. Now, there's no evidence that the amount of phthalates at each other, plastic storage containers, is toxic to humans.

That's how they get away with this. But we're we're taking all this in, and there's more and more chemicals, 247 pounds per person per day coming into the country.

And our bodies are walking sewage dumps. I'm sorry to be so blunt. You know, I mean, and our immune systems are trying to fight all this stuff, and they don't know how to do it because your immune system is the exact same immune system as your ancestors 5000 years ago.

And the only thing our ancestors had to fight was bugs, parasites, viruses, mold, fungus, and bacteria. Not just phenol or red 42 or flame retardants that are in your bedsheets.

That houseguest in the air. Now, there's no evidence that the amount of flame retardant that that chief was toxic to humans, right? Yeah. Or the plastic blinds on the windows that out gas pellets into the air.

Now, there's no evidence that the amount of fouling, that's how they get away with all this. And in the meantime, we're absorbing all of this. Your immune system trying to protect you is going after all this stuff.

And that's what creates the inflammation that triggers wherever your genetic weak link is. That's the development of your autoimmune diseases. Yeah. And I just want to emphasize that was beautifully put because I mean, first of all, the government only recognizes death or or obviously obvious disease and obvious disease doesn't occur with low level toxicity.

I mean, it's pretty obvious, but it's not so that's that and just it's it's why we're swimming in this. But but the other important thing is just for people to understand that your genetics determines, you know, what flavor of illness you will get.

All of us are going to get. So no, no, no, no, you're you're you're excuse me. Your genetics determine what flavor of

illness you're vulnerable to. Your vote.

Thank you, thank you. That's a nice much better way to put it. Yes. You just want the dimmer switch to dim down right for that. And how do you do that? You have to learn.

What are the environmental triggers that my immune system is fighting. And that's going to take you six months to a year to learn. Now this is this is an important concept for your readers, right?

There's the subtitle of my book, you can Fix your. I'm such a simplistic title. You know, we went through so many titles with the publisher and I said, no, I just want this. Right?

But the subtitle is just one hour a week to the best memory, productivity, and sleep you've ever had.

Environmental Chemicals and Autoimmune Risk

Okay, it's not a cutesy subtitle, it's the only way I believe anyone can be successful in arresting and reversing their auto immune conditions, whether it's in their brain or wherever it is.

Is every Tuesday night after dinner, every Sunday morning after services, whenever it is. But every week you tell your family I'm allocating one hour to learn a little more about how we all can be healthy.

Don't bother me. And then you go to my book and you look for the three URLs about glass storage containers. And so you go to Miles kimball.com and you look at those and you go to Amazon.

You go the third one. I don't remember what it was these oh I love those. And then you order three round ones, two square ones. One for the Pi. You pay with your credit card, hit send.

It took you an hour but you're done for the week. And next week you do nail polish. And next week you do air filtration systems in your house. And next week you do sleeping equipment and you just learn.

But a little bit because it's so overwhelming, it'll blow you away and you throw the baby out with the bathwater. It's too overwhelming if you try to change everything now, I'll give you one more, one more point to this.

I'm sorry, but that. Oh, no. Go go go. You're do you go, you go. You're great. 1986 A gastroenterologist in Australia wrote a paper and said, you know, I think that sometimes ulcers are caused by a bacteria and all the other gastroenterologist said, what are you, a nutcase?

Everybody calls ulcers are caused by too much acid and you have to give antacids. He didn't care. He knew he was right. That sometimes. So what did he do?

He did it. Endoscopy. Put a tube down his throat with a camera. Took a picture of the healthy pink tissue in his stomach. Then he drank a beaker of bacteria, a beaker of a bacteria called helium factor pylori.

Then he waited five days until he was as sick as could be, did another endoscopy, took pictures of the ulcers that were forming in his stomach. Then he took the antibiotics to kill the bacteria, waited about ten days until he felt good again, did another endoscopy and showed the picture of the healing of the stomach.

Published the papers with the pictures. Then everybody knew he was a nutcase, but he proved that sometimes ulcers were caused by bacteria. Now the World Health Organization thought that was so important.

They send a message to every medical society in the world, send this paper out to all of your members. Why? Because stomach cancer was the number one cancer killing people.

And it's often caused by a helium back to infection. So if doctors were to look at this, when people have upset stomach and heartburn and not just prescribe antacids right away, they might reduce the risk of stomach cancer.

And they did. It was very successful. But Doctor Barry Marshall didn't care. They still thought he was a nutcase. 21 years later, he wins the Nobel Prize in Medicine.

And this is the exact quote from the Nobel Committee to Doctor Barry Marshall and his partner, who, with tenacity and a prepared, mind, challenged prevailing dogma.

Yes, you want to challenge the direction your health is going. You need tenacity. That's one hour a week. What do you do? You prepare your mind by watching this interview, by watching other interviews in this summit, by reading books for one hour a week, you prepare your mind to challenge the prevailing dogma.

And that's how you win your Nobel Prize in Health. I like it, and I got to get your book because, you know, I have you know, I'm one of those people. Oh, yes, yes, yes.

And then you change one thing and then you, you know, wait another three months until you walk into the wall again, you know, you know, I love that concept because, you know, for those of us who are busy, and, you know, easily distracted, one hour a week is is it doable?

Is it doable goals? Yeah. Yeah, yeah, I think that's the only way to be successful, to stop this true pandemic that's happening about autoimmune diseases and brain dysfunction.

You know, one, one study on brain dysfunction that just shocked me. Just shocked me. Blue Cross Blue Shield, arguably the largest for profit health insurance company in the English language.

They published a paper in February of last year, and they said, we got a problem, that the incidence of diagnosis of early stage Alzheimer's dementia in 30 to 45 year olds between 2013 to 2017, in four years, went up 406%.

Well, not 10%. Yeah, not 20% for terms or four and 6% in four years that our younger generation is experiencing the end stage inflammation, damage that took our generation decades because it wasn't as bad.

It's so much worse now, and also because of what their eyes on computer screens and when they were kids, and all of that inflammation that comes from there.

It's so much worse now that we're seeing end stage Alzheimer's indicators, mild cognitive decline and mild Alzheimer's in 30 to 45 year olds, 406% increase.

You know, that's that's mind blowing. I mean, it's you know, I mean, that's that's it mind blowing. Yeah. No. And yeah, and. Well, we'll get your book quick.

So this is the summit. This summit about about mycotoxins. How does that fit in there? One of the environmental triggers that's extremely common that we're exposed to, and especially people that don't think they've got mold in their house.

Brain Inflammation and Leaky Blood-Brain Barrier

You know, if you your basement flooded and you cleaned it up, you know, you put a dehumidifier down there, you took the carpet out, dried it out, put it back.

And but the drywall got wet and the dehumidifier took it out of there. Well, the backside of the drywall, they have black mold growing in there and you never know it.

You never know. Yep, yep. It's there. And you know, as we when we talked about on it, we had Doctor Richie Shoemaker on and you know, I mean, like his newer research is really showing that something that that most of us realize, it's not just the molds, it's the other bacteria that grow anytime you have water damage, they're growing.

And again, they're not there to hurt us. But when they when they overgrow and our defense system isn't good,

they're going to they're going to cause this inflammation or they're going to aggravate.

And that's why I keep going back. I love where you start. I mean, it is always the gut. We all say it's always the gut, but you are just bringing that focus back there because we know we treat a lot of Lyme disease and a lot of these other things that are important immune triggers.

But the gut, if the, you know, if the guts a mess or if you make the gut a mess, which sometimes we do when we, when we treat, you got to go back and do the work at cleaning it up as best we can.

You know, people. Yeah, I absolutely agree. People often feel when they're trying to deal with a chronic problem, they get a little better, they get worse.

The a little bit bigger. It's like a dog chasing its tail. And it keeps going round and round. The way you stop chasing your tail is one hour a week. You focus on the environmental triggers.

We do some, we do some, we do some. We do some one hour a week every week. While you rebuild a healthy gut along with the symptom. The symptom recommendations, for your symptoms.

You okay? You want to feel better? Great. But we've got to deal with this gut, and we have to deal with the environmental triggers. So one hour a week, environmental triggers to identify them and then rebuild a healthy microbiome.

Critically, critically important to stop chasing your tail. Yeah. You know, you you you laid that out beautifully because that that is when people complain.

I've been to like 20 doctors. It's usually because each one of us has a piece, but we're, you know, and, and or a very good band aid. And because I said what we're trained to do is band aid medicine.

Right, right. Exactly, exactly. That's what my favorite patients are. The ones say, I've been to Mayo and they don't know what's wrong. And I say, oh, that's great, congratulations.

And they look at what that means. You, you you don't have a disease because if you had a disease, Mayo Clinic would find it. You've got dysfunction. Yeah. That's what's not functioning right.

So our tests are different. We're going to look for a functional problem like the foods you eat, the air you're breathing, the chemicals you're exposed to.

We're going to look at all that to see what is your immune system fighting right now. Because your immune system's the armed forces in your body. You got an army, Navy and air force or Marines, the Coast Guard, IGA, IG, IG, AGM, it's the armed forces.

So what's it fighting? That's what you have to eliminate is the need for your immune system to fight all this stuff. You don't shut down the immune system, you shut down the need for the immune system to be activated.

Yes, yes. So so as you go through your process with, with with patients, so you like you you're looking for the, the foods I, I, I mean so just you know, just from your experience what are your like top five or so things that, that you find most people really have trouble with.

Oh yeah. Thanks. And it's all it's so easily identified in the zoomer tests because their sensitivity and specificity. According to Mayo Clinic, I've got five papers from Mayo on this 97 to 99% sensitivity, 98 to 100% specificity.

Right on the money every time. So when? Yes. And when? When you do the zoomer test, as long as you have adequate total immunoglobulins, that's the one kicker.

If your immune system's worn out, the blood test can't tell you what what to do. So as long as your immune system

is not completely worn out, those are the tests.

And so there's the wheat zoomer, the dairy zoomer, the lectin zoomer, the egg zoomer. There's a bunch of the mold and fungus zoomer. There's a bunch of them that you look at the top five would be wheat, dairy, lectins, eggs and soy.

Yeah, I think that that's a that's a that is yeah. That's going to take in most of the people who and and again if you look that's also most of the foods we eat.

And we're not we're not paying attention. Right. Right. And another one is corn. You know that's that's a frequent one also because so many people are eating gluten free foods, you know, trying to be healthy.

And, they're high in corn and they may have a sensitivity to corn because most of the corn's GMO corn, which activates or inflammatory cascade. Yeah. So, you know, just because we don't have a lot of time, I'd love to just get a few minutes about, how you look at the the leaky blood brain barrier and, you know, I mean, and the and the, the, you know, the comparison to our gut.

We used to, you know, when the gut's working, it has also a bit of a barrier. So how, how how we put that together. Really. Good question. The the test for the leaky gut.

The most comprehensive tests are part of the wheat zoomer. The laboratory put them together to make them more marketable to capture doctors interest. And they did a good job.

And so the wheat zoomer tests looks for antibodies against inulin, against actin myosin. And those are the immune markers. And inflamed the gut, causing the leaky gut.

Okay. Well, Zombieland actin myosin occluding are also components of the blood brain barrier. So if you have elevated antibodies to ZoneAlarm, we all identify that with the leaky gut.

Well, yeah, but those antibodies are in the bloodstream. That's where the blood was taken. So they're traveling through the bloodstream. You know, that's the blood was taken out of your arm.

And so the blood is traveling everywhere in your body, which means it goes right past your brain. So the antibodies design you and go after the in your blood brain barrier and so an indicator of leaky gut is strongly suggestive of a leaky brain.

Strongly. But now they came out with the test a two years ago I think it was maybe three called the neural zoomer. Yeah. Plus, yeah, we do that one. Yeah.

You know, the neural zoomer had come out and it looks at eight different antibodies to your brain. And it was it was a it's a good test. But we were on our honeymoon in Costa Rica.

We spent six weeks on our honeymoon four years ago, and, I can be anywhere if I, you know, have a computer because I can work. And, I read 93 research papers on the blood brain barrier on my honeymoon.

Now. Impressive. And when we got back, I called the lab and talked to the labs. Work. Hey, neural zoom are great tests. But did you know about this? Did you know about ganglia?

Side one. Two ganglia, side two ratios. No. Did you know about this? Did you know about, herpes? And I just went through and I sent them a bunch of papers.

Eight months later, the neural Zoomer plus comes out, looks at 48 markers to brain inflammation, including the most sensitive markers for a breach of the blood brain barrier.

I call it B for capital B number, for a breach of the blood brain barrier. And that's leaky brain. So the neural Zoomer

plus will identify that right on the money without question.

And the leaky gut markers are, academically agreed to be also a potential indicator of a leaky brain. Yes, yes, yes. And what's so exciting is that if you I mean, it's better not to have it, but I think that's asking you to find a discrimination between probably family members, those who have them and those who don't.

With as far as symptoms go, I wonder, have you have you seen that or is that, you know, with no thinking with this, this will shock. This will shock people.

Remember what I just said, about kids, in utero and the exposure to five different phthalates and how many chemicals were exposed to the neural Zoomer plus has that sensitivity.

Practical Recovery: Diet, Detox, and One Hour a Week

And specificity that as long as you have enough total immunoglobulins, meaning your immune system's working, as long as you have enough, it's right on the money.

Every time. We've never had a negative test come back on a first test. Now one everyone is positive. Now think about the Blue Cross blue shield. Yeah.

So we need to for everyone has inflammation in their brain now because of what we're being exposed to. And when you see that on a first test now we've had many second tests after doing protocols for six months to a year that come back, they're much better or they're negative completely, but not of this test.

I've not had one come back negative on a first test if they have adequate immunoglobulins. Yeah, that makes sense since the people coming to you are coming to you for a reason, right?

Yeah. You know that that that is, that is fascinating. And and your and your protocol are really goes back to your, your basic principles, which is what you're building.

Yeah. The five pillars that I tell is right, right. That there. Okay. You know, and as far as restoring, how long how just we only have a few minutes.

Just quick wrap up for people. Without looking at your book. How long? I mean, just have some idea. How long do you, I guess, do you add things into the into the diet or just, you know, initially just take things out, you know, they're, the basic premise in functional medicine is get the bad stuff out and put the good stuff in.

That's the bottom line. That's what it is. And, so, people should notice it's it's a rule in my practice. People should notice they're feeling better within three weeks.

What? I don't care what they've got. Once we've got all the information and they implement the protocol, they should notice something's working a little better.

It may take you two years to turn this around. As a matter of fact, we just published a paper of a 16 year old who had gone to the University of Maryland Celiac Research Center and University of Chicago Celiac Research Center and no one could help.

He was a celiac, and it took two years to turn him around. But, the testing, the testing took about six weeks to get all the testing back. But after I was just implementing the protocol detox, detox, detox, and, learning to identify inadvertent exposures to wheat and all of that.

But you should notice you're feeling better within a few weeks to a month. But it can take two years before you. Yeah, yeah. No, I think that clinically, you know, I mean, originally originally my can't help that the doctor the desire to like, let's put a get the right bandaid.

But in the last you know, years as I've had other doctors with me who work more, who are natural gas and, you know, people starting just really with the detox that. Yes.

I've seen 1 to 2 years and, you know, and the reality is I thought, oh my God, how can you keep treating people for that long? And then we look back and realize, wait a minute, we're treating people with our band aid medicine.

I mean, you know, for ten, 20 years and they're getting incrementally a little bit better. But two years is pretty good. Yeah, yeah. You know, when, when you treat symptoms, which is an important thing to do so people can function better.

You have high blood pressure. You better take the medication until you can identify what the triggers are. But when you give somebody high blood pressure medication and they leave and you know they don't come back because they're taking their pills and they drop dead a year and a half later of a massive coronary.

Did you really do your job, doctor? Yeah, yeah, that's always the balance. So I, you know, just a shout out, I guess, since, you know, we can't do this on this this, you know, the week, the week Sumer, the zoomer technology, you know, using that the silicon chip is, you know, vibrant America is the lab.

And they've they've done a very good job. And, they're young people who really, like, jumped on the bandwagon. And I'm really excited to hear that, you were the father of the neural zoomer plus.

Well, I, uncle, I was I was the uncle. Uncle. Well, whatever. Just just having something to do with with creating a more a more, useful, more useful test.

I we appreciate that. That's something that we found very helpful. Well, thank you. And I really think everyone would benefit from doing the wheat zoomer and the neural zoomer.

Plus, because we have such a time and food multiple times a day in most people's diets. Yeah. No, no, I can't I can't agree more because, I mean, you know, nobody wants to give up rye bread.

I love my croissants. I mean, yeah, right, right, right. But you know, and but if you could see what it was doing to you, it's much easier when it's just because I say so.

It's, it just tastes really good. But, nothing like a little bit of evidence, which was really wonderful. I'm so sorry that we that we have to end so, so quickly because, I mean, you are, a man I could talk to for a very long time.

I definitely want to go out and and get your book because, you know. An hour a week. Because I said I have that list of all the things, you know, but luckily, luckily, the house, I mean, you know, I mean, like, we're really careful.

Yeah, there's, you know, the glass containers, but but sounds like there's a lot more things that I might not be aware of. There need to be. There are, you know, the, the, stain resistant Scotchgard, the sofa gases for years, minor amounts of these chemicals.

We're all breathe them every day because of because of the materials that we have in the vast majority of our homes. Now, everyone needs an air filtration system in their house.

Everyone. Yeah. No, you. What got me was, you know, I as you were going through the things I was. Oh yeah. Yeah, yeah I'm good with all that. But the blinds.

Yeah, yeah I had never, I hadn't thought about. They get heated all day long, you know, I mean I'm so that that's why I need your book. Because I said there's things I know your shower curtains, your shower had a bacteria that.

But biofilms form in the shower heads and turn the shower on. You get blasted with millions of Klebsiella or Proteus every time you take a shower. And. Okay, as you read the science in this stuff, your jaw drop.

What what? And so we talk about how do you clean showerheads? Well, you use bleach, but you can't use a regular bleach you buy in a store. It's too weak.

You have to get the 8% from Amazon, which is really cheap, inexpensive. And you soak your showerhead every six months overnight and you're fine. But you know, there's all these little points, but it's overwhelming all at once.

It really is one hour a week every week to the best memories, productivity, and sleep you've ever had. Well, that is a gift. Thank you for sharing that gift, because that was a lot of work to produce over the years, you know?

And that's the thing, we all get little pieces, but you have done a lot to put it together for us. So thank you very much. Really. It's a pleasure. And I'm planning on speaking to you more because I think there's a lot to get out to the world.

Thank you so much for being with you. To a pleasure.