Introduction to Mold, Mycotoxins, and Chronic Illness

Welcome to the Mold, Mycotoxic, and chronic illness. I'm your host, Dr. Ann Shippy. And today we have Dr. Isaac Eliaz, who is a leading expert in the field of integrative medicine.

He specializes in cancer detoxification and immunity and complex conditions. He's a researcher, bestselling author, educator and mind body practitioner.

And he works with leading research institutes, including Harvard and the NIH, Columbia and others to look at integrative approaches to cancer, heavy metal toxicity and so many other things.

He's the founder of Amitabha Medical Clinic in Santa Rosa, California, where he's used many integrative techniques to help people to heal. Thank you so much for joining us.

Thank you. Thank you for having me. This will. Be great. You have such an incredible background for for our audience. You wrote a book called The Survival Paradox.

Love for you to give us that introduction to some of your incredible work that's a bestseller. And because I think it really is relevant to us, to our audience.

Yeah. Yeah, it's the book in many ways. Level is the culmination of a few decades of studies and research in clinical work, and it presents a new paradigm that really goes along with functional medicine and the paradigm.

And the paradox is that we are wired to to survive. We are wired to stay alive at any cost. But the mechanism of survival that are built within us are the same mechanism that actually get us to suffer in life.

It tends to be reactive that gets us to get sick on an acute basis and on a chronic basis and eventually also shorten our life. And it relates to every area in medicine and it relates particularly to the area to our topic today to two mycotoxins in chronic illness. And it's really because it's innate in in us, it's built, it's built in us.

And because it's built in us, it's automated through the sympathetic system. So the sympathetic system responds with no control in a fraction of a second, as we all know, right.

Or ready to run from that tiger. And without thinking about it, we just do it. Exactly according to survival mechanism. And just like a reflex, it doesn't go up to the brain.

The Survival Paradox and Stress Biology

And it really goes either through fighting to survive, which equates to inflammation, or it goes by as running away or hiding in a field of light where we shield ourselves, we hide ourselves from the world.

We create a micro environment. And this microenvironment we'll talk later today is really the ideal environment for mycotoxins. So these are two very basic movements of the of the sympathetic system which relates to inflammation and relates to creating a microenvironment that is no oxygen.

We are hiding there, it's sealed and to fibrosis, which really causes organ degeneration. So while we are in a sympathetic mode and we can take a deep breath, we can go out to nature, we can relax and we shift back to parasympathetic.

But if we stay more in the sympathetic system, the systems touch changing. And when the body is under great stress for more than a short while and I don't want to go to the to the question in the popular topic of stress

adaptation and its benefits that, you know, when we exercise hard or we go, people take like ice baths.

They do it consciously to get better when we get stressed because of crisis, it's not conscious. It's very different and people are confusing thing and saying that stress is.

Not that you're making that distinction. Right? Because I talk to the oldest people, a scientist is great, but you have to be clinician and logical stress it comes out of your stress is not good for us.

So what happens when we are in stress or is a weak spot in the body? Take, take, take the opportunity. Right. When somebody is under stress, cancer can get worse, autoimmunity can get worse.

And people with Lyme disease know so well. You are in stress. This biology spoke it wakes up mycotoxins are drive this process. So we really want to understand this.

The problem is that when it comes to the sympathetic and parasympathetic, we can shift in a few minutes. But when the biochemical system gets the signal that we need to survive it, start a cascade of events with now is I mean, I've been talking about it for decades, but now it's so familiar to everybody.

It's called the cytokine storm. It's a storm. And now everybody knows because I write. About it now, all right, Exactly. And then suddenly it leads to devastating effects.

So the triggers from a biochemical point of view of certain protein allow in protein with the key one that I've researched for almost 30 years and made some of the key discoveries a called Galectin 3 in these protein has to change very little just to like double itself for C-reactive protein to go up 100 fold or for interleukin six to go up hundredfold.

So we have the biochemical trigger that we are very interested in because there are simple solutions how to block it. But we also want to see how can we change it from lifestyle and especially from mind body medicine, because our body is built to heal and if we can change it so we have the the mind level, something ideal in the study and in practice.

For many decades and we have the biochemical and they all give a complete picture. And this is really, in a nutshell, the survival paradox and how to approach it.

Okay. For the for the people that really want to understand what you're saying and a little bit well, let's nerd out for just a minute and just explain a little bit more about what Galectin 3 is and and what triggers it and then what happens when it gets triggered.

Just so it really makes sense that, you know, there are all these things that we can talk about that we have some control over. But then there's this automatic response that happens that's so subtle but then so significant with these inflammation markers going up.

So the Galectin 3 and then in the book I go through the whole story explanation and every organ system and disease and what to do about it in detail. But in here in briefly the Galectin 3 code behind binding protein.

So we can really look at it as the bus is the shuttle okay. It's like, it's like, it's like the Uber you are calling, you know, something is happening and you dial I'm in trouble.

Galectin 3 gets excreted by immune cell by macrophage also, but by many cells, but a lot by macrophage. And it's also triggered by certain toxins. And then it drives to the area of problem and it brings with it different ligands that can help us to repair the injured.

And these are inflammatory ligands, certain growth factors, cytokines, and then we start getting an inflammatory fibrotic area of galectin 3 could have spiked for a few minutes and go back to normal.

Nothing would happen. But even if it spikes for a few hours only, it will end up. For example, I do a lot of work with sepsis, which is related to, you know, a little bit.

I mean, in a certain way to the topic of toxin. So people are saying sepsis is. Yeah, is infection of the blood, that if it gets bad in you in the ICU and you have kidney damage, you're talking about 60% mortality, six zero.

So for for this, you need a very dramatic work.

Galectin-3, Inflammation, and Sepsis Research

So for example, have been working the last ten years almost only I'll show it because it's moving to clinical trials. It's a it's a it's a biotech project.

I'm working on a filter to take out just Galectin 3, so Galectin 3 and it's going to you're going to take out the blood, separate the plasma, the fluid from the cell and take out, take out, remove this Galectin 3 This Galectin 3 is present in nanograms in ten to the minus nine 0.0001.

Gram amount. By race amount. So the whole amount you pull out of the body is 100 microgram. You can see it with your eyes. Okay. And what we find is that when you when you induce sepsis in animals, even in large anymore, it does similar to humans.

Galectin 3 comes up first before interleukin six. And when we put it a very unique model, well, when we put that the in a poison pill model, when you put the animal into severe sepsis, you in 45 minutes are going through sepsis.

And while you're putting them in sepsis, you remove Galectin 3 for only 3 hours. The animal will never go into sepsis, never going to sepsis while the regular animal will die and it will not get kidney damage.

So that's how dramatic it is in in the in the in ICU study that we're just doing and that we will publish the second papers soon. So kind of gives the exact data we are showing that what determines who who which of the patients who come in to the ICU with sepsis in general, 40% mortality, the ones who will die will have a clear curve of Galectin three rising in the ICU while the ones who survived, regardless of how sick they came in, while the ones who go down will not die and interleukin six will go down in both patients who die and don't show.

A really important distinction, which I think is very important for our viewers, is that there may be somewhat of a genetic predisposition to. America. Number three.

Very important. And so in the sepsis patient, it's probably just part of that acute illness. But what we're talking about with the mold and mycotoxins and other chronic diseases is just where it is up and it stays up and maybe continue to get ramped up over time.

Yeah, so it's very important. So is a genetic predisposition how much Galectin three. We excrete into how it's present. It can be presented in a pentameter so or in a monomer.

So when you're in the monomer, it can penetrate to small areas more easily. And then once it brings ligands, it creates a of mayo and it gets a co, it creates a coating lattice formation.

And this information is the backbone of the biofilm is what I have in metals where mycotoxins where pesticides are going to hide in the gut. And I was thinking about it and I would love to hear your opinion about it.

People who have the mycotoxin and chronic illness and they're feeling better and they go is in an environment of a tiny amount of mycotoxin and they get immediately aggravation right?

You know, especially the one with. Like upswing in morning or grinding. And so it's not that they are overwhelmed by mycotoxins from the outside, it's just that mycotoxins are getting a signal, oops, we are home, we are in control.

You know, the whole world becomes our biosphere. Then we can start to know. And that's what really happened. I was thinking today, wow, it's really an outside signal for the mycotoxin, The survivors signal.

Well, the party starting now, we are we are safe to raise our head up. And, you know, it's fine. I would love to hear what you think about it. You know, it's.

Yeah, no, I really think that that's I think especially when people are in the recovery stage, you know, they're starting to improve. I do think that aspect of the immune system is really hypervigilant.

I mean, that's what I experienced myself. Like, you know, I would, you know, travel to a conference and have to change hotel rooms or hotels sometimes multiple times to find one that I could actually sleep in.

Whereas now that my immune system is back into a good regulated place and my toxin load is pretty low, it takes a lot for my body to scream at me. I actually have.

It's just that the Functional Medicine conference a couple of months ago and it was in Orlando and it was extremely moldy and I would suspect if I could have measured my Galectin three, it would have been through the roof.

I think I'm probably one of those people from a genetic standpoint that can upregulate it, because I started to get all kinds of symptoms that I hadn't had in years and years and years where I was getting renos from just holding a cold glass of water.

My body felt like I was hit by a truck. My brain was all foggy within a good learning environment for me, and it happened within 24 hours. I have speaking with a family member years ago in a Lyme conference.

And it's interesting. And now and many, many years later, they are you know, they are they can go into a moldy environment. It's not an issue anymore.

There is a point you will see where it's not an issue anymore, where your body regulates to the point where your immune system is no longer recognizing this is a danger as a problem.

Receive the survival response. Your body said, Oh my God, I got to survive. And then it goes into this cytokine storm. And a certain point, the comfort zone changes.

It's a big, big topic in medicine in general. You know, it's like we can be on a more and more restricted diet, which often people do, but if we are really healthy, we can eat more things and we can tolerate.

And so it's an issue of really of, of tolerance of the body. And that's a big that's a whole topic to do. And we could go so many different ways with this one.

You're exactly right. There were times in my life where I was reactive to carrots and blueberries or is now I don't even think about those kind of things.

So it's I think the thing for our audience is to let them know there's hope. And by addressing a lot of these things that you really can down regulate.

So what I want to do is have you dive a little bit more into your thoughts on somebody who knows that there in this inflammatory state there Galectin three is likely elevated and and they're working through their whole recovery from the liquid toxin.

Right. So maybe I'll start by saying that you cannot rely on the level of Galectin three to decide if you need to address it. Because of the genetics, you can still have low Galectin three and still have a major issue with Galectin three.

It driving the issue especially with Lyme disease, with the with Mycotoxins, where the Galectin three may be

sequestered inside the biofilm, inside the structure, and where we don't have an appropriate immune response.

So you will see patients sometime with Lyme disease with very low Galectin three and you may have seen very low C-reactive protein. They can't respond, but TGF beta will be skyrocket because they are driving fibrotic processes and TGF beta is driven by galectin three.

Mycotoxins, Biofilms, and Chronic Immune Reactivity

When they balance out Galectin three will go up to a normal level to 7 to 8 from like for the lowest one you see in these patients and then see up instead of being undetectable becomes 0.10.2 and TGF beta dropped from 20,000 hopefully to 3000 and then you know, now they have balance.

So there are going to the fibrotic tendency, the hiding tendency, and this is very critical for people with chronic disease. And I'll get you to strategy.

I'm a practical guy if you think about. Yeah. Go ahead. So if you think about Mycotoxins Mycotoxins, you just gave the example from Orlando. Mycotoxins don't thrive in dry, warm weather.

They drive in them especially hot place right in places that hate places which are not ventilated or in our basement, right when it's really humid and not ventilated.

When you have areas in the body with microenvironment where the cell metabolism is also changing, it changes. Then it allows mycotoxins and fungus to to thrive.

It's an anaerobic environment. And what happens is that in this environment, the cell has to survive without oxygen. So a lot of it is driven by Galectin three and by this lattice formation.

And then what happens? Galectin three will block insulin receptors in the cell will get a signal, AMPK gets blocked. What produces ATP in an efficient way in the cell gets this, gets a signal, Oh my God, I'm joking, I don't have oxygen.

Then I proxy inducing factor goes up. I'm describing them now. You can visualize it inside the cell, which again, classical for mycotoxin, for chronic disease.

The mitochondrial listening might occur. That is mitochondrial dysfunction. Right. So I love it that you're like at the cellular level explaining what's happening, of course.

And then the mitochondria gets blocked and the cell goes into crisis. So in an anaerobic glycolysis mode and in an aerobic glycolysis is more like in cancer effect, we produce 100 times more energy because we are in crisis, but we produce it at 5 to 6% efficiency, which means we are producing, we are digging in 2000 times more glucose, 2000 times with all the lactic acid will all the byproducts.

And these byproducts creates more acidity, less oxygen, and the mycotoxins are jumping up and down. We are hall Right. It's more damp, it's more sticky.

And that's what happens. So we need to change the environment. So the ways to do it is we need to peel off these pockets of McClintock's needs. The problem is that many patients know when they use binders they get aggravation.

Why do they get aggravation? Well, if you open all the drawers where you shuffle all the stuff you don't want and you throw it on the kitchen floor, it's going to be messy.

So it creates an inflammatory side to kind of response just what happened to you in Orlando. Right. Right. So when we block Galectin three, it was modified, it was baked in.

We picked the soil, which I developed almost 30 years ago and have no longer any financial interest in. So I'm talking to the researcher when we block it.

So motivated to respect him is a phenomenal binder, but it regulates the inflammatory response. So what you hear with so many mycotoxins is I tried everything and I took modify it respecting and it changed my life. Why?

Because it downregulated the inflammatory response. It allowed you to be in a place where, for example, in Orlando, you don't react wisely to remove the mycotoxins.

So that's really the fundamental movement in on this. You can use anything else, whatever you're using. And so for me is about I just have balance through clinical practice that if I start start with the modified such aspect, everybody does better.

But now you explain the science behind why that is like that's the most gentle and productive way when when we get to that part where we want to start removing the toxins.

So like, so it's very important because my defense it was picking is well published to remove heavy metals, lead, mercury, arginine, cadmium, uranium.

So you've got the heavy metals which are driving, which are driving right there and the anaerobic and you know, and candida and you know, I mean mycotoxins come from, from somewhere right. So it dries them down.

You don't get the methylation of mercury anymore so you don't get it going into the brain and causing a fog. You know, we can't isolate mycotoxins in a country where each of us, for each of us, those £1 of life glyphosate being sprayed every year, right?

So no matter where you are. So if you're in a beautiful resort in Orlando next to the golf course, you're being sprayed glyphosate every day on the golf course and you breathe it in, it goes into your food and then suddenly it this and people don't know what life with it is.

The most common pesticide used. It's a recognized carcinogen, but it creates havoc on the gut lining. It creates inflammation in the gut lining. It triggers issues like mycotoxin.

It works synergistically with mycotoxin. It disrupts absorption of nutrients and allows microdosing to get absorbed systemically. So that that's an example.

So part of this strategy, you also to have to remove a pesticide, which I've came to the recognition of it about the about three for use it goes as well.

Something is missing in my protocol and we all at least we were we were trained by Big Agra that there is nothing we can do. You know, I mean that no matter what we do is going to be a little bit of pesticides.

Okay. Right. That safely. Well, I've never heard that poison can be safe in any dosages, you know, so I made a point. Since they're so synergistic, it's not one person equals two.

It's one plus one 300 or a thousand. Exactly. Just and so and you can see, of course, the effect on the brain, because glyphosate is very similar to glycine.

It can exchange with it instead of having a natural protective neurotransmitter from the smallest amino acid glycine, you get an now excited substance.

It activates glial cells. Galectin three also activates glial cells, heavy metal activated glial cells, and then you get neuroinflammation. And then it's not only the neuroinflammation that the brain get inflamed. And of course, I'm sure you had people interviewed about the brain gut connection.

So I wouldn't talk about it too much. Is it when the brain get insulin, the signaling to the body changes everywhere and then you get a hormonal imbalance.

And all of this started from a disruption to the gut lining that was driven by the chronic predisposition of mycotoxin and hence by by glyphosate. And then you get autoimmunity that is driven and then you live with it.

The body is trying to get rid of life of this with the kidneys. We got a dramatic increase in chronic kidney disease. And then of course, it's really I mean, people are not aware 17% of the population.

So when you address mycotoxins, you can't look at it is it is one thing you got to address pesticides, you got to address heavy metals, you've got to address your lifestyle, and you really have to follow the functional route.

And within all of this, you have to look at the mindset that helps mycotoxins. Right. So I'll talk to you about in a moment, but I want to talk about what happens if it doesn't work.

And often, you know, there are cases where it doesn't work, right? Okay. Then you have to revert to more dramatic treatments. And the most dramatic treatment that is expensive.

Unfortunately, it's really considered a disruptor in this on a global level. This is what I do research on is therapeutic offerings is.

Detox Strategies: Binders, Glyphosate, and Heavy Metals

Really I'm so glad you mentioned this because that has actually been an area that I have not personally explored in my practice, but it keeps coming up and I like what I'm learning about it, is I really want to be able to offer that to patients.

So it's a very unique treatment. It's actually I was the first one to offer it in this country for, for non elevated lipoprotein and LDL and it's different than people who do it now.

People do something called Ebro in the Ozone in the blood. It's not the same. Ebru is not is not their beauty. Go for it is there is a confusion. And so the plasmapheresis too, right?

Right. Yeah. Well, this is plasma exchange. In plasma. Exchange. Is a is a tough procedure because you also removing protein. And then also it's usually done in a hospital environment.

And it's you know, it's it's it's intense. It's a risky treatment. A therapeutic offer is is is extremely safe. Not one person ever in the history of races died from what.

I guess saying. It's a good sign right like 30 years all over the world. What happens is if you take the blood and you remove selectively things that are not good for.

You know what's so interesting that the filters who remove LDL, it is a bit oxidized lipids. This is where the mycotoxins are sitting. They like sticky non sticky environment.

So we therapeutic offerings and we have ways to do certain IVs during the process to enhance it. You get people suddenly the they follow up the different labs and suddenly they don't have mycotoxins.

It's remarkable. So for certain people it's a game changer very quickly. For certain people with a detox, pathways are not good and they have a huge load.

It takes multiple treatments, but often that's what you need for the other treatments to really to really respond. Well, I think sometimes people, so many pathways are jammed with these toxins, proteins not working cell membranes and not healthy mitochondria poison in it.

It can be so hard to like just get their head above water and get some of these functions, the processes and the body working together and getting the inflammation down.

So this looks like a really great thing for people to think about when they're about, you know, just really, really compromised and need that extra boost to get their pathways working again.

Right. So, so so this is exactly and the one thing that determines or certain people I will recommend in certain people, I will say you just have to do this.

And we just wanted to just have to do this. The ones we were like of protein is genetically elevated. I know where there's a lot of oxidized LDL because, you know, when you have this in the big round, you it's not going to work because when you have a lot of lipoprotein a which is a certain lipid in in simple language that really affect oxidation of the cell, it really is called the silent killer.

You know, as you know, if the cell is not getting oxygen in when you know, it was very popular in integrative medicine in the nineties where it was discovered and people were taking heparin for it.

Yeah. So when you you have something that doesn't allow oxygen to come to the cell anyway, mycotoxins are going to thrive. So the real issue can be that you have elevated lipoprotein a nobody is checked and so dietary strategies supplement can help, but very limited because it's really genetic and the one thing that makes things complicated for your work is the COVID has really shifted this for the worse because for many, many COVID patients, even with very light disease and many people who had issues with the vaccine, it's the same package that there is a reactivity of the lip of the of the lipid in the vascular and the calculation system with rise in lipoprotein A and rise in oxidized lipids.

And that's really it's going to change medicine, unfortunately, it's going to shorten the life of many, many people. So we're talking solutions here. So I think that's and really just changing the whole way that we think about cholesterol and we think people either think of it as just something genetic or lifestyle.

But what we know is that it's just part of the body's response to what the environment is like. There's toxins to deal with or there's some kind of repair process that needs to be happening.

So the body is actually regulated. You can see people with the 300 something cholesterol that have no cardiovascular disease. Yet other people. That are.

Walking time bombs in their forties. Right? Yeah, yeah, yeah. So one very often is the lipoprotein. And you know what now finally is being done finally is the I'm talking I take lipoprotein a since 1993 on every patient so it's early for me but it's people looking at the fractionation of lipids.

It can have normal lipids in us so oxidative and if tiny particles you're going to be in trouble and you can have cholesterol of 250 and your HDL is 130 and your cholesterol, it's all in the green and normal level, all your particles, you're not going to have a problem.

Cardiovascular. Ali Of course, in Orthodox regular medicine, it all goes by standards, right? And double blind clinical trials. The individual doesn't have the place in this model, Right.

I mean, I think. That, you know, I really just think that the regular cholesterol panels with the five readings. The waste of time. Should not be done because.

I agree. But, you know, there are certain countries in the world because they're working diligently where you can get the you can get the differentiation of the fractionation and people are treated just based on their cholesterol class.

So it's a very big topic. I mean, I love it. I mean, we are going a little bit beyond, but for example, do you give a statin drugs to somebody who has elevated level of cholesterol?

Right. Well, we want to figure out what's causing it right. And the time that you should, your time you shouldn't. And so you look at the metabolism and you said what's happening?

What's happening to them and see what, if any, to lipoprotein. A But with Mycotoxins, they're almost the the is the canary in the mine. You know, when something is wrong in the mind, when there's no oxygen coming, they're going to scream.

And that's where our our mind response comes because many people, as Mike Baker talks in especially people with chronic micro toxins with with muscle activation and a new popular term, you know, that is is is valid, but it's also labeling people with a condition which it's contrary to the concept of function.

Function means change. When things move, everything can change by mycotoxin mean is static environment. When things are got stuck, they get moldy, they get sticky.

So one of the issues with this group of patients is that and I know from my own journey, from my own health, how I have recovered, you know, is that when they get a symptom that relates to mycotoxins or to muscle activation even more, it triggers in their minds the whole cascade of Now this is going to come and this is going to come back up.

And they put themselves in this road in the Titan, and they're going to this in a survival protection contraction mode, which is exactly what the mycotoxins want us to do.

So this way of working with the mind and using tools like meditation is so important. That's the key, the most important component of my work and my training.

And again, it's beyond this interview, but it's where we shift our the way our mind functions. We move from the head, from the ego driven reactivity, which creates to the open heart, which is all about flow right in the head.

We're supposed to stop and analyze in the heart the moment we stop, we are dead. So the art is about flow and where the heart flows. Not only about the spiritual aspect today, because we don't have enough time when the heart flows into oxygen everywhere and the vascular system relaxes and the tension goes down in the neurotransmitter of tension and stress go down, and then the gut lining relaxes and the whole system changes and then inflammation goes down right that that would you experience in your healing.

And so that's part of the journey. So really the journey of of mycotoxin is addressing I just touched a few points, but also bringing into it our response and our anticipation.

Therapeutic Apheresis and Advanced Detox Support

Very important. People must know what is an allergic response. It's an it's an immune response when it's not supposed to be there. It's being hyper vigilant.

So in this sense, it's like somebody the Chinese, the image of this ancient is somebody sitting in their house and ten days away there is somebody coming on their home.

They may come their way or they may not, and they're already worried, already stressed this embassy and we're in distress this is going I'm going to react to this.

I'm going to react to this. I know I'm going to react to even 0.1 gram of my infected perspective. Guess what? I reacted to it. You know. Our brains are.

Uniquely malfunctioning, obviously. So we give we have to give ourselves the opportunity in this space and the recognition that we can heal. And when we connect to this, what I call echoing open heart medicine, anything and everything is possible.

And I love I love using I love using the the the the phrase not everybody will be a miracle, but anyone can be a

miracle because anything is change and everything is changeable.

And that really is the hallmark of functional medicine. You know, it is the function and function. The end results can change. I love the way you've articulated this message because is really like if anybody is like have one one message to take away from that, it really is the inspiration and how it can heal.

And you just nailed it. So that's so beautiful. I would love to spend a minute on the practical side of using modified citrus pectin, so things like dosing things to look for anything, because I can imagine people listening, they're like, okay, this is going to help me so many different ways.

I want to get started. What would you recommend? So you really have to build to the full dose of 15 grams of pick this one and it's important when used.

And what if it it was effective that use pick the solid that's the one most effective to respecting that there's been research all the research in not only over 80 published papers including a lot of papers about biofilm and microbiome with with the USDA.

So you start with one scoop a day or six capsules, better to use a powder. And the five grams, if you start with five grams and most people will tolerate it.

Well, if you have a little bit of bloating, a little bit of gas, it's normal, it's a fiber, it's the page is balanced with sodium and potassium, and the ratio of potassium or sodium or 4 to 1 healthy ratio.

So it takes time. And there's a. Of bloating, just deal with it. You've got a lot to. Go along with and then go up to the full dose. You can take a scoop in a half, seven grams twice a day, or if you really have time, you can take five grams three times a day and it's fine to take it only ten, 15 minutes prior to eating.

You can take it with other supplements. It's fine. You can take it with other supplements. The the I created the restriction in 1995 and then we did studies and we showed it doesn't affect absorption of minerals.

It removes heavy metals. So it's not an issue. We don't have to you don't have to worry about pulling out too many metals. No, no, because. Because it doesn't pull them from the tissue, you pull them from the circulation and then through a gradient, you know it will go down.

So and then. So it's so it's like well go ahead and finish. No, no, no, please, please, please go. So it sounds like it pulls out the mycotoxins, the heavy metals, the pesticides.

Is there anything that doesn't take. Well, you know, so it pulls out heavy metals and it breaks the biofilm, it pulls it pulls out some of the mycotoxins, definitely.

But because it you can use it, you can add other binders if you want with it, you often don't. And you can take it to other binders at the same time. Yeah, Yeah, definitely.

But you often don't need to. You'll be surprised. I mean, it's it's I mean the United States quite a few large Lyme and mycotoxins clinics it automatically every patient is put on on on what effect it was taking because of the of the benefits and because you know you look at the effect on longevity of a lower level of the latency.

So that's one thing. And and then you really want to get to the 15 grams a day and then some people will find that afterwards it can keep the benefit in a low dose.

You can go down, but give yourself a chance at 15 grams if you take your. How long do you usually see? That is sometimes for people with tendency for a long time.

People with cancer, for life, you know, I mean, I mean, I tried to take 15 grams when I don't when they skip my evening dose. I see the difference may be no when see wouldn't be as low you know definitely because it really

collectively drives diabetes.

You know, it's the same mechanism. Right, Right. The same The same mitochondrial issue. But then if you are younger, if you have a good baseline, if you are eating really well, yeah, you can go, you know, But in my opinion, it's the most important supplement one can take because it does something that nothing else can do.

The research supporting and it's synergistic. You can see it in cancer with chemotherapy, with radiation. You know why? Because it allows anything we want to do to get to the target tissue in a better way. So that's one part.

And then you got to address pesticides and negatively charged. I like fluoride chloride bromide. And while you do deliver nutrients to the body and this is where I developed like for detox, a really unique product that is focused on removal of glyphosate in pesticide.

Specifically, we haven't finished our clinical trial and so we need a few more cases to show a clear statistical difference. But there is a very dramatic difference.

We are able we know we have something that is pulling out glyphosate that's a big deal. There's really probably would be the first time there will be a supplement documented specifically to pull out glyphosate.

So this is available already? Yeah, of course. And it's a unique product because it includes regular pectin so it doesn't get absorbed systemically and it more is a greater affinity for fat soluble toxins.

It includes alginate which are similar but is a little bit of a different profile. Both Alginate and Pickering's are considered as swamp cleaners, you know, in the environmental industry.

And then it includes kelp because kelp is a remarkable substance. It kelp kelp seaweed has alginate. Those are rich in organic iodine and in minerals nutrients and proteins.

So you you getting it and they live nourishment. And then it has folic acid from from Sheila G. And full week because it is an amazing agent that is documented to bind to to life with it balances the gut lining but it also reduces neuroinflammation and delivers all the microbes.

The all the trace elements are present because. Yeah. So for our listeners, I just want to say like I do a ton of testing on my patients to look at their toxin levels at the best, the best that will perform.

And pretty much every body that has highly mycotoxins or has a mold exposure, they have high glyphosate, they have heavy metals and many other toxins.

So having this kind of approach where there are multiple ways of throwing out that toxins is so important, nobody nobody's immune from glyphosate. Everybody has. So exactly.

I mean, I've yet to see one patient with the urine test is no glory for me. You know, everybody's in even a little bit and then there's glycine, so it helps you to find production.

It exchanges with glyphosate, it helps the brain. So this combination is the winning combination. For Mycotoxins, it's like the rescue kit on top of it.

Then, then, then you do everything else. I, I have a couple of supplements that are on my what I call my desert island line. I can't live without it basically.

So I have airdrop business. So phosphatidylcholine. Like. My because I'm a little down and now I'm adding this. Right? Exactly. So interesting. So it's like talent and glutathione are two things I use during my apheresis process, during.

So I'm exchanging, I'm exchange and afterwards for whatever I didn't catch because I freezes, which is oxidized

and positively charged. IONS So I'm, I'm using phosphatidylcholine I'm exchanging with fat soluble toxins on the membrane, right?

That that alkaline is soluble and the filter takes it out. That's it. That's why I say it's so dramatic for for mycotoxin patients, because if our body is compromised, it's we are getting for a few hours a filter doing the work for us.

And I am I'm fortunate to be able to see what's in people's blood like no one else because I'm seeing a big I'm seeing out oops. So I can see I can diagnose people just by looking at what came out of the bag.

So it's surprising to the Mycotoxins patients will be the ones where, you know, it's supposed to change color but not have any sticky stuff and you get clumps of sticky stuff.

Coming up, clump of growth factors, clump of fibrinogen in clumps of, you know, of mycotoxin and an oxidized lipid the coming together. And literally you can see that what was happening in the body and what the patient would often feel is wow I can think sometime within the treatment you know and know shortly after.

So treatments to people usually need to do.

Labs, Lipids, and Monitoring Chronic Toxicity

For mycotoxins I always say not listen to because what happens when you clean the blood one time, then the tissues can let go of them. And if you don't, people can get worse.

And then it's so important to do these things as a maintenance so that. Right. Back in that state again. So people have mycotoxins this ones will do maintenance even once a year or twice a year.

And then they really they really prevent the need for crisis and for intense therapy for four, four weeks. Yeah. That's great. So one other question on the practical side of things.

Are there labs that you like to do to monitor your progress with things like TGF beta? Do do you have some personality? So TGF Beta, actually, LabCorp is very reliable because of that research and you've been in for between 214 and 217.

So I did like hundreds of patients. They are the. Encyclopedia. This is so fun. Yeah, you know, so they are very I mean, they used to be a lab and, and if you remember total health diagnostics, they went out of business, They had great panels. So.

So for VEGF, plasma node with G. F. serum because it's affected by sort by platelets and then I really like to do LabCorp was for Agent K for for natural killer cells.

We want to see where is the immune system. And then the interesting thing about the different urine tests for mycotoxins and it's a little bit better for mycotoxins, is it?

They really nobody has taken the time to study. What does it mean? Is it a one week? Is it a long term or what? What was excreted in the last 24 hours?

You know, these are very successful. But I really challenge because I took a different road. They need to put money into research. You need to tell us what does it mean?

So for me it's more I took it documented when they when they do a mycotoxin test you know different labs then and they see that it's elevated, it tells me that there is an issue, you know, and then I will follow up just to see hopefully just to see that there is a change.

But often you will see that it doesn't directly is, you know, reflect how the patient is doing. So the clinical picture is really very, very important.

Eventually, you know, we treat the person we don't with the labs, but the lab is becomes a light signals to us. For example with with Galectin three if you're galectin three is even above 14 or 15 or about 12, if you have mycotoxins, it's elevated already.

Now the standard will say normal and 17.8 or is sometimes 22 even because initially the approval was in a patient with congestive heart failure. Most of them have kidney problems. They can't excrete.

Galectin three The standards are higher and above 17. 8.8 is a dime in a much greater percentage than below. But now with a new automated a platform, I mean really being probably the most experienced person in watching Galectin three in patients, anything ten, 11, nine is in our normal range.

Because I take this part of my research, I get plasma from multiple people who will give blood or donate, and I check plasma levels because I need it for my research about depletion.

And most of them are around 6 to 8. You know, that's you would never get 6 to 8 with the manual said if 10 to 12 years ago. But if you galectin three is of a 17.8 and you have an illness, you will need 20 grams of what if I from strict because you get more galectin three to remove it.

Simple equation of blocking blood and you will see is the inflammation gets better. It's not more difficult to speak to remove galectin three it blocks its place.

Where it binds is the inflammation is reduced. Galectin three way to go down. Careful. Look at that. You know the details of what's happening on a cellular level.

It makes the, you know, the clinical so powerful at that level of research that you've done on this does help. Yeah. So I'm curious, make up my mind going on so many things.

I am just so enjoying your, your brilliance here. So the empiricist does not take out some of the collecting. Yes. Yes it does. So it doesn't do this this filter.

This filter will remove 100% of what goes through the blood. And that's what you need. That's why I'm testing it for sepsis, for really for issues of emergency.

But for chronic basis operations will remove about 20, 25% or so. It will. Remove it. So is that a filter that you use with a person's. Galectin three filter is in development.

You know, it's when you go through a regulatory process, you need to raise tens, millions of dollars and you need to get this safety studies. But you know, there is a reason for it.

It has to be safe. I know is that even if I'm I it because especially if you do something that is new takes more time. Right. This idea of in a new invention.

But there is a reason there is a reason to the regulatory system. It's there is an element of protection there you know being abused. Sometimes it's a different story. But but so but the regular filter that is right now, it's it's more for removing LDL and hyper protein.

A this is yeah, this also takes some some GALECTIN three but it will take any it takes all the oxidized LDL that come through. So eventually you filter enough, enough plasma, it will take 80% because it gets diluted in the blood, it will remove 80% of lipoprotein and it will reduce the heavy metals.

Right? It will it right then it will reduce mycotoxins very dramatically. And one of the reasons for doing two treatments in the second treatment there is much less cholesterol in the blood.

You didn't come back. So the filter is more room to really focus on the mycotoxins on the other sticky stick and that's why you would think, wow, the blood is going to be clean on the second if I will have less in my bag.

Right. Usually you have 2 to 3 times more in the bag because the body is now let go and it's collecting it. So we've covered so much such a detail level and so grateful you.

Might find that volume. This is great. Yes. I think it's so important to know not just what to do, but why it works, right. It to me that gets hope and, you know, people are we're using terms that they haven't heard before that don't necessarily make sense.

I think it's reassuring that that there is a lot of detailed science behind it. Is there anything else for people helping to recover from, like a toxin, chronic illness as it relates to cancer or autoimmune diseases, diabetes, all these things that are being caused that we we want our listeners to know about.

So I think it's a very basic and difficult to keep all the time. We got to stay away from refined sugars really with anything that spikes insulin.

Mind-Body Healing, Fasting, and Closing Remarks

And one of the secrets of doing it is drinking enough water and we are all chronically dehydrated. I mean, you will be surprised. We really have to drink about three quarters of water every day and very few people do.

So as simple as drinking two glasses of water, when you wake up and two glasses of water before every meal and then remember to drink two glasses of water twice in the day and before bedtime if it's okay or after dinner enough.

You don't want to dilute the digestive process. And the moment you hydrate the sense of hunger and and goes down, you know, leptin goes up, insulin goes down, and what happen?

The only the best way to satisfy your hungry insulin and then demanding dopamine is with refined sugars. Right. So it also has to be in a way that we don't feel deprived.

So it's really important, you know, I mean, doing diets that deprive us is not a good idea. The other thing is really important is the gut need to repair time, relaxation time.

And in this sense, intermittent fasting is is a no brainer, really. If there's one thing in the in dietary regimen we can agree is are the benefits of intermittent fasting.

And so so we give a break and we give autophagy a chance and the cell gets clean, it can recalibrate itself, which is especially critical for mycotoxin patients because it still feels more refreshed.

It took a good nap. It's not in crisis and once there is more oxygen coming to the cells, mycotoxins are losing the vegetable. They can survive. They simply can't survive.

You know, they don't replace. They can get cleaned up more easily and they can accumulate. And then over time we get better. I love it that we're wrapping up on just very simple things to implement and so powerful.

You know, total. I love it. If you would share how to find the pack to solve and then how find you. Yeah. So people can go to Dr. Eliaz, dreliaz.org That all is.

Of course they can search pick the solid. It's made by a company called Econugenics. And I really recommend The Survival Paradox. Not because I wrote it, but because it really offers for for patients and for health providers.

It offers a different way of understanding how our body function, our how our life functions. And it really goes through a philosophical journey, scientific journey and practical journey.

And then there are three chapters about solution detoxification, where I give a little bit of a broader understanding of what it means. Healing your scars of survival, genetic, epigenetic, and then freeing the survivor paradox, how they're made.

And then once you go through this journey, you've got about 80 pages of protocols at the end of the book. The book really is a journey. It's tools, and then the details are there.

You have details. This is a detox diet and this is decent to do for that. Yes, but it's not a recipe book. It's a book about it's a journey. So we shift our with survival because when we move away from survival, when there is something that comes to us and we all fall into it, but we all have the capacity not to fall into it and we don't respond with anger or with fear, but we accept and we open our heart.

It changes our life. Now, this is not cliche because every cell in the body wants to get nourishment and throws away toxins. It wants to survive the only organ in the body that we open arms takes the blood that everybody let go and doesn't want is the heart.

The heart has to take all the dirty blood in order to connect with the universe, change the quality and give blood without discrimination. Right. The old days, the stiff out of it gives without discrimination.

So the hard survival is to give, to give, to give. In order to do this, it has to take the dirty blood. No dirty blood comes. It can be alive. So we are able to transform what our cells consider toxins, our suffering on an emotional, spiritual, physical toxin level and use it as a substrate is the wood for the fire of nourishment in the heart.

Once it gives blood, it relaxes, and only then it nourishes itself through the coronary arteries. But right there, closest to the heart, because the heart nourishes itself, in order to nourish others and is part of nourishing others, and that self-love is part of loving others.

And that's really important in healing. Don't be hard on yourself. It hasn't helped one person ever and will not help anybody just be opened. So we all have capacity for this.

We all fall. I fall, you for everybody falls into this, right? But we all have the ability for how to just open in the closure, the contraction which allows mycotoxins to thrive.

That's our genetics, our epigenetics, our trauma. It's not who we really are. We really are is just love, because that's how we are wired. That's why every spiritual tradition is the heart and center of the mind or the consciousness know the divine within us.

So every cell has this quality and that's why anything and everything is possible. That's why everybody, it can be a miracle the moment we connect to it.

It's an on of it's like, wow. And that's the goal. That's the ultimate medicine. That's really what I'm interested in. What I teach. I teach for many years, mainly in Israel, and I'm going to start teaching, so I'm going to offer a free zoom.

Seven days and I'm going to take people, even though I know in every day, probably in January of 24, and take them through a simple process to they can have these tools and then start teaching face to face retreats, because it's amazing the transformation that happens, especially for patients with mycotoxins and autoimmunity and chronic disease, because they just peel off.

We all have the ability to do. Oh, I have goosebumps there. And in addition to this brilliant physician scientist, you have such a beautiful heart and your heart has as much wisdom as your brain, which is quite phenomenal.

Thank you. I just love speaking with you and I look forward to more times. Absolutely. Absolutely. Take care. Have a great day.