Introduction and Dr. Eliasu2019s Background

This is Doctor Talks, real talk from real doctors on the issues that matter to you most. Welcome to the Mold Microtoxin and Chronic Illness Summit. I'm your host, Dr.

Anne Chippy. And today we have Dr. Isaac Elias, who is a leading expert in the field of integrative medicine. He specializes in cancer, detoxification, immunity, and complex conditions.

He's a researcher, bestselling author, educator, and mind-body practitioner. And he works with leading research institutes, including Harvard, 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, Dr. Schicke. That would be great. You have such an incredible background for our audience. You wrote a book called The Survival Paradox.

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

Yeah. Yeah, the book is menu level. It's the culmination of a few decades of studies and research and 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 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.

that get us to be reactive, that get 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 mycotoxins and chronic illness.

And it's really because it's innate in us, 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?

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

And it really goes either through fighting to survive, which equates to inflammation, or it goes by us running away or hiding, right? Fear of light, where we shield ourselves, we hide ourselves from the world.

The Survival Paradox and Stress Response

We create a micro environment. And this microenvironment we'll talk later today is really the ideal environment for microtoxins. So, these two very basic movements of the sympathetic system relate to inflammation.

and relates to creating a microenvironment that has 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 system starts changing.

And when the body is under great stress, for more than a short while and I don't want to go to the question and the popular topic of stress adaptation and its benefits that you know when we exercise hard or we go people take like ice bath 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 think that stress is not right because I talked to some of these people.

A scientist is great but you have to be a clinician and logical. Stress that comes out of pure stress is not good for us. So what happens when we are in stress All the weak spots in the body 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, the spirochet wakes up.

Microtoxins 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 a signal that we need to survive, it starts a cascade of events. What now is, and 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 yeah now everybody knows because now oh exactly and then suddenly it leads to devastating effects so the triggers from a biochemical point of view are certain protein alarming protein with the key one that i've researched for almost 30 years and made some of the key discoveries called galactin-3.

And this protein has to change very little. It has to like double itself for C-reactive protein to go up 100-fold or for interleukin-6 to go up 100-fold.

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 mind level, something I did in the study and I practiced 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 people that really want to understand what you're saying at a little bit, let's nerd out for just a minute and just explain a little bit more about what the Galactin-3 is and what triggers it and then what happens when it gets triggered, just so it really makes sense that 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 Galactin-3, and in the book I go through the whole story explanation in every organ system and disease and what to do about it in detail, but here briefly, the Galactin-3 is a carbohydrate-binding protein.

so we can really look at it as the bus, as the shuttle. It's like the Uber you are calling. Something is happening and you dial, I'm in trouble. Galactin-3 gets excreted by immune cells, by macrophages, also by many cells, but a lot by macrophages, and it's also triggered by certain toxins.

And then it drives to the area of problems, 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.

If Galactin-3 could have spiked for a few minutes and go back to normal, nothing would happen. But even if it spiked for a few hours only, It will end up, for example, I do a lot of work with sepsis, which is related, you know, a little bit, I mean, in a certain way to the topic of mycotoxin.

area is infection of the blood that if it gets bad and you're in the ICU and you have kidney damage, you're talking about 60% mortality, six zero. So for this, you need a very dramatic work.

So for example, I've been working in the last 10 years almost, only I'll show it because it's moving to clinical trials. It's a biotech project. I'm working on a filter to take out just galactin-3.

Galactin-3, you're going to take out the blood, separate the plasma, the fluid from the cell, and take out, remove this galactin-3. This galactin-3 is present in nanogram, in 10 to the minus 9. 0.0001 grace amounts.

So the whole amount you pull out of the body is 100 micrograms.

Galectin-3, Cytokine Storms, and Sepsis Research

You can't see it with your eyes. And what we find is that when you induce sepsis in animals, even in large animals that are similar to humans, galactin 3 comes up first, before interleukin 6. And when we put, it's a very unique model, where when we put the, in a pose and a pig model, when you put the animal into severe sepsis, where in 45 minutes they go into sepsis, and while you're putting them in sepsis, you remove galactin-3 for only three hours, the animal will never go into sepsis, never go into sepsis, while the regular animal will die.

and it will not get kidney damage. So that's how dramatic it is. In ICU studies that we're just doing, and we will publish the second paper soon, so I can't give the exact data, we are showing that what determines which of the patients who come into the ICU with sepsis in general, 40% mortality, the ones who will die will have a clear curve of Galactin 3 rising in the ICU.

while the ones who survive, regardless of how sick they came in, while the ones who go down will not die. And interleukin-6 will go down in both patients who die and don't die.

I think that's a really important distinction, which I think is very important for our viewers, is that there may be somewhat of a genetic predisposition who can over-create.

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

Yeah, so it's very important. So it's a genetic predisposition to how much galactins we excrete and to how it's presented. It can be presented in a pentamer or in a monomer.

So when you take in the monomer, it can penetrate to small areas more easily. And then once it brings ligands, it creates a pentamer and it creates a coating, a lattice formation.

And this Latinformation is the backbone of the biofilm, is where heavy metals, where mycotoxin, where pesticides are going to hide in the gut. Now we're thinking about it and I would love to hear your opinion about it.

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

You know, especially the ones who have… The body is like, oops, warning, warning. We're in danger. Exactly. So it's not that they are overwhelmed by micro toxins from the outside.

It's just that the micro toxins are getting a signal, oops, we are home, we are in control. You know, the whole world becomes our biofilm. We can start, you know, and that's what really happened.

I was thinking today, wow, it's really an outside signal. for the micro toxin, a survival signal. Well, the party is starting now. 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. 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 hyperventilating. I mean, that's what I experienced myself. Like, I would 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 was just at the functional medicine conference a couple months ago and it was in Orlando and it was extremely moldy and I would suspect if I could have measured my Colectin 3 would have been through the roof.

I think I'm probably one of these 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 my nose from just holding a cold glass of water.

My body felt like it was hit by a truck. My brain was all foggy. I was in a good learning environment from for me. And it happened, you know, within 24 hours.

I have experienced with a family member years ago in a line conference. And it's interesting. And now 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 as a danger, as a problem.

You see, it's a survival response. Your body said, oh my God, I've got to survive. And then it goes into this cytokine storm. And at a certain point, the comfort zone changes.

That's a big, big topic in medicine in general. We can be on a more and more restricted diet, which often people do. But if we're really healthy, we can eat more things and we can tolerate.

And so it's an issue of really, of tolerance of the body. That's a big, that's a whole topic too. No, no, I know. And we could go so many different ways with this.

And you're exactly right. There were times in my life where I was reactive to carrots and blueberries. whereas now I don't even think about those kinds of things.

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

love to do is have you dive a little bit more into your thoughts on, you know, somebody who knows that they're in this inflammatory state, their Galectin 3 is likely elevated, and they're working through their whole recovery from mold and microtoxin.

Right. So maybe I'll start by saying that you cannot rely on the level of Galectin 3. to decide if you need to address it. Because of the genetics, you can still have low Galactin 3 and still have a major issue with Galactin 3 driving the issue, especially with Lyme disease, with mycotoxins, where the Galactin 3 may be sequestered inside the biofilm, inside the structure.

and where we don't have an appropriate immune response. So you will see patients sometimes with Lyme disease with very low Galactin-3. And you may have seen very low C-reactive protein.

They can't respond, but TGF beta will be skyrocketed because they are driving fibrotic processes and TGF beta is driven by Galactin-3. When they balance out, Galactin-3 will go up to a normal level to seven to eight from like four.

The lowest one you see in these patients. And then CRP instead of being undetectable becomes 0.1, 0.2. And TGF beta drops from 20,000, hopefully to 3,000. And then, you know, now they have balanced.

So they were going the fibrotic tendency, the hiding tendency. And this is very critical for people with chronic disease. And I'll get into strategies.

I mean, I'm a practical guy. If you think about, yeah. So if you think about mycotoxins, mycotoxins, and he just gave the example from Orlando, mycotoxins don't thrive in dry, warm weather.

They drive in damp, especially hot place. in places which are not ventilated or in our basement, when it's very humid and not ventilated. When you have areas in the body with microenvironments where the cell metabolism is also changing, it changes then it allows mycotoxins and fungus to thrive.

Mold, Mycotoxins, and Cellular Dysfunction

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 galactin-3 and by this lattice formation.

Then what happens? Galactin-3 will block insulin receptors. And the cell will get a signal, AMPK gets blocked, what produces ATP in an efficient way, and the cell gets a signal, oh my God, I'm choking, I don't have oxygen.

An epoxy-inducing factor goes up, I'm describing now, you can visualize it inside the cell, which again, classical for mycotoxin and for chronic disease.

The mitochondria… Listening might have heard that as mitochondrial dysfunction. Right. So I love it that you're like at the cellular level explaining what's happening.

Yeah, of course. And then the mitochondria gets blocked and then the cell goes into crisis. So in an anaerobic glycolysis mode and in an aerobic glycolysis mode like in cancer, in the Warburg effect, we produce a hundred times more energy.

because we're in crisis, but we produce it at five to six percent efficiency, which means we are producing, we are taking in 2,000 times more glucose, 2,000 times, with all the lactic acid, with all the byproducts.

And these byproducts create more acidity, less oxygen, and the mycotoxins are jumping up and down. We are home, right? It's more damp, it's more sticky.

And that's what happens. So we need to change the environment. The ways to do it is we need to peel off these pockets of mycotoxins. 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 cytokine response. Just what happened to you in Orlando, right? Right. When we block galactin-3 with modified citrospectin, with Spectosol, which I developed almost 30 years ago and I have no longer any financial interest in, so I'm talking as a researcher.

When we block it, so modified citrospectin 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 modified sit-respecting and it changed my life.

Why? Because it down-regulated the inflammatory response. It allowed you to be in a place where, for example, in Orlando, you don't react while it's removing the mycotoxins.

So that's really the fundamental movement. And on this, You can use anything else, whatever you're using. And so

fun for me is I've found that, you know, I just have found this through clinical practice that if I start with the modified such as pectin, everybody does better.

But now you've explained 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 right, so it's very important because Modified Citrus Pectin is well published to remove heavy metals, lead, mercury, arsenic, cadmium, uranium. So you've got the heavy metals which are driving, which are driving, right, the anaerobic and you know, and candida and you know, I mean, mycotoxins come from, from somewhere, right?

So it drives them down, you don't get the methylation of mercury anymore, so you don't get it going into the brain and causing We can't isolate mycotoxins in a country where for each of us there is one pound of glyphosate being sprayed every year, 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 and it goes into your food.

And then suddenly it dis… and people don't know glyphosate 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 mycotoxin to get absorbed systemically.

So that's an example. So part of the strategy, you also have to remove a pesticide which i've came to the recognition of it about about three four years ago that wow something is missing in my protocol and we all i 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, there's going to be a little bit of pesticides, they're okay, right? There is a safe level. 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 plus one equals two, it's one plus one might… A hundred or a thousand. Exactly. And you can see, of course, the effects on the brain because glyphosate is very similar to glycine.

It can exchange with it. Instead of having a neuroprotective neurotransmitter from the smallest amino acid, glycine, you get a neuroexcitatory substance.

It activates glial cell. Galactin 3 also activates glial cell. Every metal activates glial cell. And then you get neuroinflammation. And then it's not only the neuroinflammation that the brain gets inflamed.

And of course, I'm sure you had people interviewed about the brain-gut connection, so I won't talk about it too much. It's that when the brain gets inflamed, the signaling to the body changes everywhere.

And then you get the neurohormonal 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 glyphosate.

And then you get autoimmunity that is driven, and then glyphosate, the body is trying to get rid of glyphosate through the kidneys, so you got a dramatic increase in chronic kidney disease.

And then of course, which really, I mean, people are not aware of 17% of the population. So when you address mycotoxins, you can't look at it as one thing.

You got to address pesticides, you got to address heavy metals, you 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 mycotoxin thrive. So I'll talk to it 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, I'm considered a disruptor in this on a global level.

Detox Strategies: Modified Citrus Pectin and Glyphosate

That's what I do research on is therapeutic aphoresis. I am 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 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 A and LDL.

And it's different than people who do it. Now people do something called Ibu when the ozone is the blood, it's not the same. Ibu is not, is not therapeutic.

There is a confusion. And so there's the plasma phoresis too, right? Well, this is plasma exchange and plasma exchange 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 intense.

It's a risky treatment. Therapeutic aphorosis is extremely safe. Not one person ever in the history of therapeutic aphorosis died from it. That's a good sign, right?

Like 30 years all over the world. What happens is that you take the blood and you remove selectively things that are not good for you. Now what's so interesting that the filters who remove LDL aphorosis, the bad oxidized lipids, this is where the mycotoxins are sitting, they like sticky non-sticky environment.

So with therapeutic aphorism, we have ways to do certain IVs during the process to enhance it. You get people suddenly, 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, whether 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 respond. Well, I think sometimes people, so many pathways are jammed with these toxins, proteins not working, cell membranes are not healthy, mitochondria are poisoned, and it can be so hard to just get their head above water and get some of these functions, the processes in the body working together and getting the inflammation down.

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

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

And which are the ones that I just have to do this? The ones where a lipoprotein A is genetically elevated. One where there's a lot of oxidized LDL. Because you know, when you have this in the background, It's not going to work because when you have a lot of lipoprotein A, which is a certain lipid in simple language that really affects oxidation of the cell, it's really called the silent killer, as you know.

The cell is not getting oxygen. It was very popular in integrative medicine in the 90s where it was discovered and people were taking heparin for it. So when 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 that nobody has checked. And so dietary strategy supplement can help but very limited because it's really genetic.

And the one thing that makes things complicated for your work is that 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, is that there is a reactivity of the lipid and the vascular and the coagulation 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. I mean, people either think of it as just something genetic, or lifestyle.

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

And so the body's actually regulated. You can see people with the, you know, 300 something cholesterol, but have no cardiovascular disease. Yet other people are walking time bombs in their 40s.

Right. Yeah. So one very often is the lipoprotein A. And you know, what now finally is being done finally is I'm talking, I check lipoprotein A since 1993 on every patient.

So for me, But it's people looking at the fractionation of lipids. You can have normal lipids and you are so oxidized and have tiny particles, you're going to be in trouble.

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 cardiovascularly.

Of course, in orthodox regular medicine, it all goes by standards, right? And double-blind clinical trials, the individual doesn't have a place in this model, right?

I mean, I think, you know, I really just think that the regular cholesterol panels with the five readings, It's a waste of time. It should not be done because…

I agree. But you know, there are certain countries in the world, because they work internationally, where you can't get the differentiation, the fractionation.

And people are treated just based on their cholesterol. 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 starting drug to somebody who has elevated levels of cholesterol, right?

Nobody wants to figure out what's causing it. Right. Or the time that you should, the time you shouldn't. So you look at the metabolism, as you said, what's happening?

What's happening to the hemoglobin A1C, whatever need to lipoprotein A. But with mycotoxins, they're almost the canary in the mind. 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 mind response comes, because many people with mycotoxins, especially people with chronic mycotoxins, with muscle activation, a new popular term that is valid, but it's also labeling people with a condition, which is contrary to the concept of function.

Function means change. When things move, everything can change. Microtoxins mean a static environment when things get 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 recovered, you know, is that when they get a symptom that relates to mycotoxins or to muscle activation even more, it triggers in their mind the whole cascade of now this is going to come and this is going to come and this is going to come.

And they put themselves in this road and they tighten. And they go into this inner survival protection contraction mode, which is exactly what the micro toxins want us to do.

So that's where working on the mind and using tools like meditation is so important. That's a key, the most important component of my work and my training.

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

In the head, we are supposed to stop and analyze. In the heart, the moment we stop, we are dead. So the heart is about flow. And when the heart flows, not going about the spiritual aspect today because we don't have enough time, when the heart flows, then there's oxygen everywhere in the body.

and the vascular system relaxes, and the tension goes down, and the neurotransmitter of tension and stress goes down, and then the gut lining relaxes, and the whole system changes, and then inflammation goes down, right?

That's what you experience in your healing. So that's part of the journey. So really the journey of mycotoxin is addressing, I just touched a few points, but also bringing into it our response and our anticipation.

Very important. What is an allergic response? It's an immune response when it's not supposed to be there. It's being hypervigilant. So in this sense, it's like somebody, the Chinese image of this ancient, if somebody is sitting in the house and 10 days away, there is somebody coming on a horse.

They may come their way or they may not. And they're already worried. Or distressed. That's the MCA. And when distressed, 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 modified introspecting. Guess what? I reacted to it. Yeah, of course. Yeah, you knew it.

Self-fulfilling prophecy. So we give, we have to give ourselves the opportunity and the space and the recognition that we can heal. And when we connect to this, what I call open heart medicine, anything and everything is possible.

And I love using the phrase, not everybody will be a miracle, but anyone can be a miracle. because anything is change and everything is changeable. And that's really is the hallmark of functional medicine, you know, that is the function and through function, the end results can change.

Therapeutic Apheresis for Severe Toxic Load

I love the way you've articulated this message because that is really like if anybody is like have one message to take away from it, it really is the inspiration and hope that their body 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 are like, okay, this is going to help me in 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 pectin. And it's important when you use a modified pectin that you use pectin. That's the one modified pectin that has been researched, all the research, only over 80

published papers, including a lot of papers about biofilm and microbiome with the USDA.

So you start with one scoop a day or six capsules, better to use a powder. and five grams. 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. The pH is balanced with sodium and potassium at a ratio of sodium of four to one, the healthy ratio.

So it takes time a little bit. And then go up to the full dose. You can take a scoop and a half, seven and a half 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 10, 15 minutes. Prior to eating, you can take it with other supplements. It's fine. You can take it with other supplements.

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.

You don't have to worry about pulling out too many metals? No, no, because it doesn't pull them from the tissue. It pulls them from the circulation. And then through a gradient, no, it will go down.

So, and then- So it sounds like pectus. Oh, well, go ahead and finish up that. No, no, no, please, please, please. So it sounds like it pulls out the micro toxins, the heavy metals, the pesticides.

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

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

You'll be surprised. I mean, there are now in the United States quite a few large limes and mycotoxins clinics that 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 galactin 3. 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 they can keep their benefits in a low dose. You can go down, but give yourself a chance at 15 grams. if you check it for how long do you usually see that sometimes for people with tendency for a long time people with cancer for life you know i mean i mean i try to take 15 grams when i don't when i skip my evening dose i see the difference my hemoglobin a1c won't be as low you know definitely because it really gelatinous it 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 very well, you can go down.

In my opinion, it's the most important supplement one can take because it does something that nothing else can do. The research is supporting it, and it's synergistic.

You can see it in cancer with chemotherapy, with radiation. 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've got to address pesticides and negatively charged ions like fluorides, chloride, bromides. and while you deliver nutrients to the body.

And this is where I developed glyphodetox, a very unique product that is focused on removal of glyphosate and pesticides specifically. We haven't finished our clinical trial, so we need a few more cases to show a clear statistical difference, but there is a very dramatic difference.

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

And 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 has a greater affinity for fat-soluble toxins.

It includes alginates, which are similar but has a little bit of a different profile. Both alginates and pectins are considered as swamp cleaners in the environmental industry.

And then it includes kelp, because kelp is a remarkable substance. Kelp is seaweed, has alginates, but it also rich in organic iodine and in minerals and nutrients and proteins.

So you're getting the live nourishment. And then it has fulvic acid from Shilaji. And fulvic acid is an amazing agent that is documented to bind to glyphosate balances the gut lining but also reduces neuroinflammation and delivers all the trace elements are present.

For our listeners, I just want to say, I do a ton of testing on my patients to look at their toxin levels at the best that we can. And pretty much everybody that has high microtoxins or has a mild exposure, they have high glyphosate, they have high heavy metals, and many other toxins.

So having this kind of approach where there are multiple ways of pulling out the toxins, it's so important. Nobody's immune from glyphosate. Everybody has some.

Exactly. I mean, I've yet to see one patient where the urine test has no glyphosate. You know, everybody's even a little bit. And then also it has glycine, so it helps glutathione production.

It exchanges with glyphosate. It helps the brain. So, this combination is the winning combination for mycotoxin. It's like the rescue kit. On top of it, then you do everything else.

I have a couple of supplements that are on my, what I call my desert island. I can't live without them basically, so I'd have to have them air-dropped in.

So, phosphatidylcholine, and now I'm adding this. right exactly so interesting phosphatidone and glutathione are two things i use during my aferesis process during so i'm exchanging i'm exchange glutathione afterwards for whatever i didn't catch because aphoresis catches oxidized and positively charged ions.

So I'm exchanging with fat-soluble toxins on the membrane, right, for satidal colonies, fat-soluble, and the filter takes it out. That's why I say it's so dramatic 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 the bag I'm seeing how it looks so I can see I can diagnose people just by looking at what came out of the bag so it's surprising so the micro toxin patient will be the ones where you're not 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, and clumps of, you know, of mycotoxin and oxidized lipids that are coming together.

And literally, you can see what was happening in the body and what the patient will often feel is, wow, I can think, sometimes within the treatment, you know, and shortly after.

So how many treatments do people usually need to do? For mycotoxins, I always say not less than two, because what happens when you clean the blood one time, then the tissues can let go.

And if you don't, people can get worse. And then it's so important to do these things as a maintenance of it. Right. Back in that state again. For people who have mycotoxins, this one will do maintenance even once a year or twice a year.

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

So are there labs that you like to do to monitor your progress with things like TGF data? Do you have some lab results? Yeah. TGF-BETA actually LEP-Corp is very reliable because I've done research on TGF-BETA for between 2014 and 2017, so I did like hundreds of patients.

This is so fun. Yeah, you know, so they are very, I mean, there used to be a lab THD and I never remember total health diagnostics. They went out of business.

Mind-Body Healing, Diet, and Recovery

They had great panels. So for VGF plasma, not VGF serum, because it's affected by platelets. And then I really like to do lab crop also for H&K for natural killer cells.

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

Nobody has taken the time to study what does it mean? Is it a one week? Is it a long term? Or is it what was excreted in the last 24 hours? That is a very successful lab that I really challenge because I took a different road.

They need to put money into research. They need to tell us what does it mean. So for me, it's more documented. When I do a mycotoxin test in different labs, and I see that it's elevated, it tells me that there is an issue.

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, as you know, reflect how the patient is doing.

So the clinical picture is really very, very important. Eventually, you know, we tweet the person, we don't tweet the labs, but the labs becomes light signals for us.

For example, with Galactin-3, if your Galactin-3 is even above 14-15 or about 12 if you have mycotoxins, it's elevated already. Now, the standard will say normal under 17.8 or sometimes 22 even because initially the approval was on patients with congestive heart failure, most of them have kidney problems, they can't excrete galactin 3, the standards are higher, and above 17.8 they die in a much greater percentage than below.

But now with a new automated platform, I mean really being probably the most experienced person in watching Galactin-3 in patients, anything 10, 11, 9 is our normal range.

Because I check, as part of my research, I get plasma from multiple people who give blood, who 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 would never get 6 to 8 with a manual kit if 10 to 12 years ago.

But if your galactin 3 is over 17.8 and you have an illness, you will need 20 grams of modified citrospec. because you got more Galactin-3 to remove. It's simple equation of bullet blocking allowed.

And you will see as the inflammation gets better, it's not that modified introspective removes Galactin-3. It blocks its place where it binds. As the inflammation is reduced, Galactin-3 will go down.

I love it that you know the details of what's happening on a cellular level. It makes the clinical so powerful with the level of research that you've done on this.

does help yeah so i'm curious he got my mind going on so many things i i'm just so enjoying your your brilliance here so the aparesis does that 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, atheresis will remove about 20-25% of the leg.

So it will remove. And so is that a filter that you use with aparesis? Yes, the lignin 3 filter is in development, you know, it's a regulatory process.

You need to raise tens of millions of dollars and you need safety studies. But you know, there is a reason for it. It has to be safe. I know, because especially if you do something that is new, it takes more time.

That's the idea of a new invention. But there's a reason. There's a reason to the regulatory system. There is an element of protection there. It's being abused sometimes.

That's a different story. But the regular filter that I use right now, it's more for removing LDL and lipoprotein A. This also takes some Galactin-3, but it will take all the oxidized LDL that comes through.

Eventually, you filter enough plasma, it will take 80% because it gets diluted in the blood. It will remove 80% of lipoproteinase. It will reduce the heavy metals.

Then it will reduce mycotoxins very dramatically. One other reason for doing two treatments In the second treatment, there is much less cholesterol in the blood.

It didn't come back. So the filter has 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 apparatus, I will have less in my bag, right? Usually you have two to three times more in the bag. because the body is now let go and it's collecting it.

We've covered so much at such a detailed level. I'm so grateful. It's my fault. I apologize. No, no, this is great. Yes. I think it's so important to know not just what to do, but why it works.

And to me, that gives hope. Even if people listening were using terms that they haven't heard before or that don't necessarily make sense, I think it's still reassuring that there is a lot of detailed science behind it.

Is there anything else with people helping to recover from old mycotoxin chronic illness as it relates to cancer, autoimmune diseases, diabetes, all these things that are being caused that 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. And one of the secrets of doing it is drinking enough water.

We are all chronically dehydrated. I mean, we'll 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 goes down, you know, leptin goes up, insulin goes down.

And what happens, the best way to satisfy a hungry insulin and a 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 very important, you know, I mean, doing diets that deprive us, is not a good idea. The other thing is really important is that the gut need repair time, relaxation time.

And in this sense, intermittent fasting is a no-brainer. Really, if there's one thing in dietary regimen we can agree is

on the benefit of intermittent fasting.

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

It took a good nap. It's not in crisis. And once there is more oxygen coming to the cells, Microtoxins are losing the battle. They can't survive. They simply can't survive, you know.

They don't have a place. They can get cleaned up more easily and they can't 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.

Yeah, totally. I'd love it if you would share how to find the Pectosol and then how to find you. Yeah, so people can go to Dr. Elias, drelias.org. Of course, they can search Pectosol, it's made by a company called Econugenics.

And I really recommend the survivor paradox, not because I wrote it, but because it really offers for patients and for health providers, it offers a different way of understanding how our body functions, 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 what it means, healing your scars of survival, genetic, epigenetic, and then freeing the survivor products, how they're mined.

Where to Find Dr. Elias and Closing Remarks

And then once you go through this journey, you get about 80 pages of protocols at the end of the book. So 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 this, and this you do for that. Yes, but it's not a recipe book. It's a book about, it's a journey.

So we shift our 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 with 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. The aorta is a stiff artery, 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, can be alive. So we are built to transform what our cells consider toxins, our suffering, on an emotional, spiritual, physical, toxin level, and use it as a substrate, as the wood for the fire of nourishment.

And 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, so the heart nourishes itself in order to nourish others and as part of nourishing others.

And that's self-love as part of loving others. And that's very 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 fall, everybody falls into this, right? But we all have the ability for our heart to just open.

And the closure, the contraction, what allows micro-toxin to thrive, that's our genetics, our epigenetics, our trauma.

it's not who we really are. Who we really are is just love because that's how we are wired.

That's why every spiritual tradition has the heart in its center, you know, of the mind or the consciousness, you know, the divine within us. So every cell has this quality and that's why anything and everything is possible.

That's why everybody can be a miracle. The moment we connect to it, that's an on-office, 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. I'm going to take people, even though now I have a day probably in January of 2024, and take them through a simple process so 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 it. Oh, I have goosebumps. 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 time. Absolutely. Absolutely. Take care. Have a great day. Thank you for tuning in to Doctor Talks.

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