Introduction and Dr. Floyd's Background

Hi it's Dr. Jen, welcome back to the summit. We are talking to Dr. Robert Floyd. He's a sought after board certified M. D., certified by the Institute for Functional Medicine.

He's a writer and athlete and an entrepreneur. And today we are going to talk about optimizing mitochondrial health to improve Hashimoto's. Welcome, Dr. Floyd.

Tell us a little bit more about yourself. Well, thank you for having me. It's great to be here. I have been a doctor for about 15 years. Before that, I had a varied and exciting life.

I was a living in the mountains in the west. Ski Patroller. Climbing Guide. Ski Guide. Race. Downhill Mountain Bikes and things like that. And then I decided I wanted to go into medicine and get having the sports background.

I really, really thought I was going to get into orthopedics and it just didn't work out. And so I went into medicine and I've done I've had a varied career in medicine, excuse me. And I started in trauma surgery in Las Vegas for a couple of years and realized quickly I didn't want to do surgery and so then I went into family medicine and really enjoyed that.

The whole broad picture of, you know, from cradle to grave and just a lot of different modalities of medicine. And that I from there at the end of my residency, I was able to moonlight and did a bunch of E. R.

work as an I did. I was a medical director of a rural E. R. here in Nevada. And then I discovered functional medicine, which actually is really just resonates with me deep inside me, you know, the root cause medicine.

And, you know, having been an athlete in the past, I, I was always really concerned about, you know, what I put in my body, you know, how I ate, you know, did a little bit of fasting here and there, but not much.

And then I just I knew that what you put in comes out and it really it's like garbage in, garbage out if you treat your body well. And, you know, I realize that food is medicine.

And so functional medicine just really, really resonated with me tremendously. And I have been just going down the rabbit hole of functional medicine for the last four or five years, and I'm just loving it.

So here I am. That's great. We need more doctors like you out there. So. So tell us a little bit about the mitochondria. How is our diet harming our mitochondria?

You said garbage in, garbage out. So tell us a little bit about how diet affects our mitochondria and can you start with just explaining what the mitochondria is?

Yeah, the mitochondria is absolutely an amazing little micro structure in each one of our cells. And it's not just, you know, we all learn that it's the power pack of the cells, it's the battery pack of the cells.

It's the nuclear reactor of the cells. And they're really, really, really important for making energy. And that's what they do. It's like the the engine in your car.

You have to put gas in it, combust the gas. It breaks down the gas and gives you energy. And that's exactly what mitochondria do. Mitochondria are they have a very important role in our body of making ATP, which is what we use for energy every day.

Without ATP, you'll die within seconds. And the way these mitochondria work is they will take a substrate and they'll

break it down. It has it has a couple of different walls.

It has an outside lipid bilayer, and then it has an inside membrane. And it's so smart that it knows how to take some of the food byproducts or chemical reactions in and go through.

And it uses what's called an A transport chain and it just takes hydrogen ions off from here to here to here to here. And at the end of it, you get ATP, which is adenosine triphosphate.

And one of the really interesting things about mitochondria is that they actually have their own DNA.

What Mitochondria Are and How They Make Energy

They actually are from a bacterial DNA. And another very interesting thing is that all the DNA from the mitochondria comes from your mother. You don't get really any DNA, mitochondrial DNA from your father.

And there's a couple of reasons for that. One of them is that a lot of the mitochondria in the sperm are in the tail, and the tail comes off when it meets with the egg.

And so it's just a really fascinating little cellular product. It's an intracellular, it's organ, it's an organelle inside the cell. And I just I find them fascinating.

And, you know, we all learned about them in, you know, high school biology. And then we learned very in-depth in med school. And I just find them very, very fascinating and they're very resilient, but they are also very susceptible to damage.

So yeah, definitely. I feel like that mitochondria I remember making a cell model in middle school. Right. And it looks like little jiggly jagged lines all over.

So our mitochondria, though, we don't just go around talking about them. You don't go to your doctor's office and talk about your mitochondria and how it's affecting your health and how as we age, our mitochondrial health goes down.

So what about food? How can our food that we eat, especially the sad diet, the standard American diet, how can that hurt our mitochondria? The the mitochondria are like I said, they're pretty resilient.

But the the standard American diet, along with many other environmental toxins, really, really harm our mitochondria. And they've done a lot of studying.

There's primary mitochondrial disease, but then there's also secondary mitochondrial disease. So, you know, primary mitochondrial diseases, again, that the car engine analogy is there's something broken in the engine so the engine doesn't work.

Same thing with the mitochondria. There's something broken in the genetics that make your mitochondria. And so you mitochondria will not work as well.

But the secondary mitochondrial disease is because of the standard American diet. And you know, environmental toxins, heavy metals, chemicals, other pollutants like that.

And one of the things that I've noticed is that the standard American diet is absolutely full of seed oils and they're hidden everywhere. And one of the problems with seed oils is they are not like your typical fat that the mitochondria can break down, the mitochondria can take pyruvate acid or can take fat and shuttle them through the outside layer into the inner membrane where they get broken down.

And it does that whole hydrogen electron transport chain and outcome's ATP on the other end. Well, if like the car analogy, if you're putting bad gas in the motor, your motor is not going to run well.

Or if you're putting actually that's even more sense is that if you're putting bad oil in your car, it's not going to run well. And one of the problems with the standard American diet is that it's, you know, calorie dense, but nutrition lacking.

Right. And mitochondria, they need nutrition. There's a lot of cofactors that help mitochondria run really well for that electron transport chain, you know, such as B, vitamin B, coenzyme Q10 nad H and things like that that you get through eating a really good, healthy diet.

But unfortunately, when you're eating the standard American diet, which unfortunately it's just packed with ultra processed foods, it's kind of like putting really, really low quality gasoline into the gas tank or low quality oil for the motor.

And because of that, what happens is that these mitochondria, they lose efficiency over years. And, you know, sometimes they can be very quick and sometimes it takes a long, long time.

Yeah. Seed oils are they're hidden in everything. It's crazy. So anything packaged, look in the bag, see if they're sunflower oil, soybean oil, canola oil.

How Diet and Seed Oils Damage Mitochondria

And you just don't want those. They can oxidize really easily. So that means it's just extra hard for our body to to fight things that are oxidize. They're like poisons. So it's not good.

So let's talk about what happens to the mitochondria when they're damaged or they become less efficient. What where do they go? What do they do? Well, one of the things like what happens with mitochondria and most cells when they get damaged.

But inside the mitochondria you have endoplasmic reticulum and other little organelles in there that when the mitochondria start to be less efficient, they will break down and then get recycled.

Basically. So they'll they'll break down the cell walls and take whatever the good stuff is leftover that's actually working and then recycle that into the new mitochondria and then the rest of it, they'll get rid of it.

And so what happens when our mitochondria become less damaged? Again, it's really simple because to use a car engine analogy, when you are making energy with ATP, the there's an exhaust a byproduct of basically like car exhaust, right?

And so like if you're in your garage and you were running the car and the exhaust, it would overwhelm you and kill you. And what happens is we have the same thing.

It's called a reactive oxygen species. You know, we've all heard of, you know, oxidative stress and reactive oxidative oxygen, reactive oxygen species, and we've all heard of antioxidants.

And so what happens is these antioxidants are made in the body. And each cell, you know, like glue to fly on superoxide dismutase and catalase. So those are just some fancy antioxidants.

But what happens is when the mitochondria becomes less efficient, more of those oxidants, those reactive oxygen species build up inside the cell. And what can happen is that you're that one cell cannot, you know, compete against that high amount of antioxidant levels and that can damage the cell.

It actually the mitochondria themselves are very, very sensitive to an overabundance of really reactive oxygen species and they actually harm themselves.

So it's very important to have, you know, glutathione and superoxide dismutase and things like that to go in and get rid of those oxidation oxidants. Absolutely.

And that in our diet and you can get things that help make foods iron like NAC and still sustain things like that from our food or supplements. And it's important to make sure that mitochondria has what it needs to work properly.

And the problem is, as we age, we know we don't absorb nutrients as well. And there's a lot of factors with especially with aging that damage our mitochondria.

So how can this mitochondrial damage, how do you think it leads to autoimmune disease and what's the connection? You know, one of the things throughout my years of reading about these, because, like I said, I'm fascinated by it, is that they've actually found mitochondrial DNA and RNA in joints, faces of people with rheumatic disease, you know, rheumatoid arthritis, psoriatic arthritis, lupus.

And so what happens is, again, when the cells when the mitochondria get damaged and they again, they're very resilient, but they can just over time get damaged and damaged and damaged.

And then they just say, okay, I give up, I'm done, and then they break apart. And like I said, what can be seen is that you can actually they've done joint aspirations and found mitochondrial DNA and RNA inside the joints.

So what like I said before, the DNA in the mitochondria, it's actually from a bacterial source, you know, hundreds of thousands of years ago and evolution.

And they think that this could actually be causing an immune reaction to those foreign body DNA. And so that's one of the one of the wonderful or amazing things that, you know, we've been able to discover with science is like we can actually analyze that and be like, wait a minute, there's mitochondrial DNA in this joint space and all these people have, you know, rheumatoid arthritis.

It's very interesting. That is really interesting. So with you're saying those studies just with autoimmune aspirations from from joints, not like osteoarthritis or anything like that, have they been able to compare them?

There was one study I'm looking at and it was who was it was it was a study in 2021, published in Nature Immunology, that found that uncleared mitochondrial DNA and RNA, if it's not removed, it activates the immune system.

And like I said, so it's kind of almost like a foreign body and, you know, the I don't think osteoarthritis is more of kind of like a grinding it's more of a structural problem most of the time.

Not always, but a lot of times it is. And so what we're seeing is that with the increased mitochondrial DNA in the system, they've actually found in the nut, not only was it in the joints base, it's also in the cardiovascular system, the circulatory system.

It's actually in the blood they can find in lupus patients.

Mitochondrial Damage, Oxidative Stress, and Autoimmunity

They found elevated levels of mitochondrial DNA and RNA in the bloodstream. So they they posit that what's happening is, again, you having this chronic inflammation and then all of a sudden your immune system says, whoa, whoa, whoa, what's going on?

And it starts attacking itself because of what there's a term called molecular mimicry, which in a lot of us in the functional medicine space I've heard, but a lot of people have never heard that before.

And the way I stated is that your immune system, because you have let's say you don't leaky gut or, you know, dysbiosis or this this mitochondrial damage, it's on high alert and it's overactive.

And from a the term molecular mimicry, because your immune system is on high alert and overactive, it says, hey, these cells over in the thyroid gland or those cells in the pancreas, they look a lot like those other cells that we've

been attacking for the last couple of months.

Let's go and attack those. And so what happens is your immune system goes and attacks its own cells. And, you know, Hashimoto's is the most common autoimmune disease in America right now.

And I've seen it in a lot of my patients and I do see it when they get better, when we decrease the generalized inflammation, when we heal the gut and we give the immune system a break and so it's not overactive anymore.

Does that make sense? Absolutely. I love talking about molecular mimicry. It's it's very, very relevant with a lot of things going on with the pandemic.

So I will bring that up a little bit because COVID, the actual infection were really hard on the mitochondria and other viruses can be really hard on the mitochondria.

What have your what have you been seeing? Because I can see in my practice, people's mitochondria are just smashed from from COVID. So I put them on, you know, a very nice regimen to get their mitochondria boosted again because it can really, you know, and as you're saying, with the molecular mimicry, with this mitochondrial RNA being found in the joint spaces, in the blood, you know, our I'm worried we are just going to see an explosion of autoimmune disease in the next decade if we don't start treating our health and and fixing gut health, mitochondrial health and everything.

I agree 100%. And, you know, I've seen it, you know, it's weird because, you know, COVID is this it's almost like this unknown disease that obviously we've never dealt with it until now.

But it's also a mimicry of so many other things. It mimics, you know, autoimmune disease. It limit it mimics, you know, GI disease, it mimics neurologic disease.

It mimics everything. And I would agree with you that, you know, when you are seeing patients who have, you know, all of these, you know, maybe long COVID, I've seen that when I do, you know, give them some you know, possibly some antibiotics.

It's almost kind of like a Lyme disease as well. Right. And I give them maybe some antibiotics or some natural, you know, antibiotic, you know, like oregano, oil or something like that.

And then I, I boost their immune support with specific immune supporting nutraceuticals. They do tend to get better. And I find that very fascinating.

Yeah, it really is. It's, it's like like a black box. It's crazy. But it's also similar to, like you said, Lyme and other stuff, kind of infections like Epstein-Barr and everything and I have seen that it brings out people's weaknesses, right?

So sure. Yeah. So when people are not bouncing back, it's taking them a couple of weeks to recover. I kind of let them know, well, your mitochondria kind of have been getting trashed or not optimal, especially for your age, because a lot of younger people really it wipes them out. So I think it's a good indicator of general health how well people do with that.

Absolutely. You know, you can you can almost like look at people in the street and say, oh, their mitochondria are suffering. You know, they're the ones with chronic fatigue.

They're the ones with fibromyalgia. They're the ones walking around with their shoulders hunched over. You know, they're the ones who can't get out of bed in the morning without hitting the snooze, you know, five or six times.

And again, it's the properly functioning mitochondria are absolutely paramount for a healthy, happy, vibrant life. And, you know, the good thing is that we do know things, supplements and other modalities that we can help boost mitochondrial health.

And that's a good thing. So, you know, I want to give people who are watching this hope that, you know, if you're one of those people I just talked about and said, you know, your shoulders are hunched over your fatigue all the time.

And so on and so forth. You know, there is hope for you and that we can get you better. And, you know, there's there's a lot of doctors out there who do believe that, you know, if we can improve your mitochondria, we can get you healthier and more a more vibrant life.

Absolutely. Now, I will say, I do know what you're talking about. I do tend to see people when I'm out and I just diagnose them. And in my head, I'm like, I wish they would just come up to me and and talk and ask me about health.

But that usually doesn't happen. Sometimes it does. But there's also people that look really good on the outside and I'm like, I want to see their labs, you know, like, because it's so.

So, yes, like most people, they don't really look good, but sometimes also because of cortisol and stress. So overtraining can actually ding your mitochondria, too.

So, you know, you can't always judge a book by its cover. But the good news is, is that you definitely can heal from this and your body wants to be in homeostasis and run smoothly like that car that just got an oil change. Right.

So how can you improve your mitochondrial health? There's a lot of ways to improve the mitochondria health. One of them, like you just said, is decreasing stress.

COVID, Long COVID, and Immune Mimicry

If you decrease stress, that is going to markedly improve your mitochondrial health because you know, your mitochondria, again, they're so important. And depending on the metabolic output of each tissue, you will have more mitochondria in each cell like let's say your heart cells.

Right? They are very metabolically active or kidney cells or your brain cells. They're very metabolically active. And that's why mitochondrial inefficiency can pop up.

There's so many different types of problems. You know, you get, you know, heart failure. You can get high blood pressure, you can get cognitive issues.

You can get, you know, Parkinson's and Alzheimer's. They've done some studies that relate, you know, mitochondrial health can lead to or bad mitochondrial health can lead to Parkinson's and Alzheimer's.

And then the like. I started to say, if you have four more metabolically active cells like your heart, your kidneys, your brain, you have more mitochondria in each cell, there are 40 quadrillion might have conduit, which is like thousands of trillions of mitochondria in our body.

In your heart cell, you might have, you know, 35,000 mitochondria inside one cell, whereas, you know, in your skin cell you might not have as many because it's not so metabolically active.

You know, I know it's kind of a long winded question about how we can improve mitochondria health, but I wanted to bring that up because it's very important to improve mitochondrial health for your metabolism.

And, you know, one of the best ways I found for improving mitochondrial health is through time restricted feeding and intermittent fasting. And also, like you said, you know, stress reduction that really, really improves people's overall general health and wellness.

But, you know, one of the things with time restricted feeding and intermittent fasting is that it causes a process called autophagy, which is the destruction of old dying cells.

You know, they're kind of on their way out. And when you fast your body says, hey, those cells are looking like garbage, let's eat them up, recycle the good stuff in them and make new ones.

Same thing happens with your mitochondria. You have a process called Mitophagy and it does the exact same thing. It eats up the old senescent meaning old and dying mitochondria and actually it and recycles it.

And then it also reads to the increased amount of mitochondria, you can actually make more mitochondria when you do fasting. And that's one of the reasons why I've seen it through myself personally, but also a lot of my clients and patients when they go starts doing time restricted feeding, their energy levels skyrocket almost within, you know, a week or two.

And so I think that's really fascinating. Yeah, it is. It's those zombie cells. So think of them as zombie cells with senescent cells like you. You want them gone from your body.

They're they're not helping. They're old and haggard. So see I intermittent fasting is a great option for mitochondria. What do you think about modalities such as red light therapy?

You know, I would assume that they're good. I haven't done a whole lot of research on red light therapy and mitochondria. That's just something I haven't looked at.

So I don't want to, you know. Mr. Speak on that. I like it. I think it's really helpful and really good that the red light on Easy can just stand in front of it, or I use mine when I'm on the computer at night.

So I think that's great. So is there any diet that you would recommend if someone's watching right now and they're like, I want like, how should I eat for my mitochondria?

What would benefit me along with the time restricted eating. You know, there's there's the ketogenic diet has been pretty popular because when they're fueled by ketones instead of glucose, their ability to produce ATP can be enhanced.

And the damaging free radical byproducts are decreased. I'm a big fan of I mean, obviously, if you see here, it's Paleo M. D. here. That's my my program.

I'm a big fan of the Paleo diet. And it really doesn't matter which diet you do.

Improving Mitochondrial Health with Fasting and Exercise

What it matters is that you stay away from the standard American diet and you stay away from ultra processed foods and you decrease the amount of sugar sugar gums up the mitochondria.

Okay. It's like just again, the carb motor engine thing. If you put a bunch of sugar in a gas tank, it's going to gum up that engine and it's not going to work.

Well. And what happens is when you put too much sugar in your body, like I said, it gums up the mitochondria, makes them much less efficient, and it increases those reactive oxygen species, therefore requiring your body to make more antioxidants.

And that alone requires a lot of energy to make antioxidants. You know, you can take a bunch of antioxidants by mouth, but you can also eat things, vegetables, you know, a lot of colorful fruits that have natural antioxidants.

You know, Sulforaphane, which is found in broccoli, is one of the greatest antioxidant producers, because what it does is it increases glutathione in your body.

It's really, really cool. There's a little mechanism next to it when you have a lot of antioxidants in the cell. This one molecule called Nrf2 will release itself from what it's attached to go into the gene are go into the nucleus and and

it's a genetic transcription factor and it says, hey, we got a lot of reactive oxygen species.

We need to make more glutathione, more catalase, more dismutase. And what happens is then those go in and they are the antioxidants that your body naturally makes.

So you yeah, like I said, you can take handfuls of, you know, an acetyl cysteine or, you know, glutathione on. But the human body is genius. That's how I feel.

It's one of the most genius machines ever created. And so, you know, feeding it good foods, you know, healthy fruits and vegetables. You know, I recommend in my program Eat the Rainbow, you know, eat a lot of different colored fruits and vegetables, you know, blueberries, raspberries, strawberries, you know, hopefully organic.

Right. I mean, because you don't want to the toxins that you're eating on these vegetables and fruits and then, you know, there's other supplements, you know, acetyl l-carnitine is a good supplement for the mitochondria that helps the membranes transport fat through the outer membrane to get it in.

You know, CoQ10, like I said before, is a coenzyme in the electron transport chain to make the ATP, you know, vitamin D three has been shown to increase mitochondrial oxidative phosphorylation.

And one of the things that we haven't talked about yet is out exercise. Exercise is amazing for mitochondrial health. You know, it really helps your mitochondria become more efficient.

It actually makes more mitochondria through a process called mutagenesis. And like I said, when you when you're fasting, you have mitophagy. The same thing happens when you exercise because you're really breaking your body down.

So you get mitophagy. It beats up an easy recycle of the old senescent zombie cells, and then it's forced to make more mitochondria, more healthier, more vibrant, better, more efficient mitochondria.

Yeah, absolutely. I like the paleo diet. I recommend it a lot with patients. It's good for gut health too, because it's taking out gluten in a lot of the grains that are hard on the gut and can cause leaky gut.

But yeah, like my mitochondria kind of like day for my mitochondria would look like waking up, you know, doing a fasted workout to get that mitochondria going, maybe do the red light, maybe a cold shower and then, you know, and then eat a paleo diet.

So it's really it's not that hard to help your mitochondria. And I like what you were saying about like gumming up the engine. And vaccines look like the diet that can look like environmental toxins, you know, so, so really taking all those things and bringing it together, it's not that hard.

It's very doable. So going back full circle, so will improve mitochondrial health, will it help with Hashimoto's? Will it help prevent Hashimoto's disease?

Will it help patients currently that have Hashimoto's? Yeah, I believe 100% that it will. There's, there's an inverse, not an inverse, there's a, there's a correlation between Hashimoto's and might have control, disease or mitochondrial inefficiency.

They kind of don't know which came first. The chicken or the egg, right? When you have Hashimoto's, you can have decreased mitochondrial health and when you have decreased mitochondrial health, you can have Hashimoto's.

And so it's kind of like I said, it's which came first, the chicken or the egg, but there's absolutely 100% if you can increase your mitochondrial health by, like we said, exercise, easing, fasting, doing the things that cause or misses, like you said, the cold shower exercise while fasted, you can increase your mitochondrial health, which will then decrease the oxidative stress in your body.

And they you know, it's positive that, you know, Hashimoto's is caused by over a high amount of oxidative stress, an overactive immune system. So if you can decrease those, you can decrease the oxidative stress and the overactive immune system.

Absolutely, totally agree with all that. So awesome. Do you have anything else you want to touch on about the thyroid? You know, another thing that we didn't mention was rest.

Okay? Like you did mention that over exercising can lead to, you know, kind of a simulated autoimmune disease. And one of the things that's very, very important is rest.

And I don't think enough people get proper rest. And so that includes the ways to improve proper rest is to get exercise, to make yourself tired at night, decrease your screen time at night before you go to bed, at least an hour before you go to bed.

And you know, if you need to take some supplements, I do not recommend taking you know, sleeping pills every night because those can really harm your sleep.

Diet, Supplements, and Lifestyle for Better Mitochondria

One of the best things that you can ever do to get a good night's sleep is the morning when you wake up as fast as you can. Go outside and get sunshine on your face, sunshine in your eyes.

It helps reset your circadian and melatonin rhythms that will help you sleep better that night. And then again for you asked about how else we can increase or decrease Hashimoto's increased mitochondrial health.

You know, I am a big fan of avoiding wheat and gluten, okay? You know, that's part of the paleo diet. And it's not just gluten. I think it's wheat. I think wheat is a very, very toxic substance.

There's over 700 different pharmacological bad reactions in the body associated with wheat gluten only has a couple of proteins gladden, gladden and gluten and but wheat has 700 proteins in it.

And if you have an autoimmune disease, you could be having that because you're allergic to one or two of those wheat proteins. You might not even have a gluten protein, a gluten allergy or a gluten sensitivity, but it could be the wheat itself.

So I'm a big fan of anybody who has any sort of autoimmune disease. You got to get checked if you have you know, you got to go on a gluten free diet. Also, I'm a big fan of in my program, I ask my clients to try to commit to basically three things gluten free, dairy free, sugar free.

All three of those things can harm your mitochondria and your overall health. And, you know, I don't expect everybody to do that forever. You know, this isn't dogma.

This is let's say let's try these things. If we can get you off of this, can we see if you get better? And then it's like an elimination diet for, you know, at least a month.

I ask them and I try to have them go for at least 12 months. But I've been, you know, gluten free, dairy free, sugar free. And I'll say most of the time, because I'm not perfect for I know probably four or five years now.

And it's made a big difference in my life. And I know that when I do eat those things in excess, I feel it. I feel terrible. I feel joint pains, I have brain fog and fatigued, I have gut issues.

And so that's that's my $0.03 on that one. Absolutely. My patients know I tell them to do gluten free and I tell them I'm like, give me eight weeks, take it out for eight weeks and then put it back in.

And most of them are like, Yep, I'm good. I'm not touching that again. And glyphosate is heavily sprayed on well,

oats and gluten, wheat, it's sprayed on the wheat.

So it's the glyphosate and the gluten that can be highly reactive and really hurt our gut health. And I'm sure glyphosate affects the mitochondrial too.

So I don't know if they've done specific studies, but I'm sure it does. You know, that's a good thing that I got to look into that because like you said, you know, this Roundup Ready Wheat is it's absolutely it's abominable that it's actually legal.

We know by previous lawsuits in California that Roundup causes massive problems, including cancer and even death. You know, it's it is it's very, very terrible.

And so I have to tell my clients that, too. Like, you know, when you eat wheat, they spray roundup on it right before they cut it down. And then you're eating that.

And there's there was a one study that showed that there was they looked at 26 children's cereals. Every one of them had glyphosate in. And, you know, the biggest thing about glyphosate is it's a it's an antibacterial.

It's a pesticide. It kills bugs. So what it does is it harms your microbiome inside your guts, which then is a whole nother summit. Yeah, exactly. It is.

But it's it's all connected. It really is glyphosate. I mean, it's in the rain, like when my kids are eating snow. I'm in Ohio, so we get snow and they're eating the snow and I'm like, cool, they're eating glyphosate.

So but you know, you do the best you can. You avoid it when you can and know that you're going to eat out, you're going to have some exposure. But if you build a strong foundation, you're going to be okay.

Same with your mitochondria.

Hashimoto's, Gluten, Glyphosate, and How to Find Dr. Floyd

If you do day in and day out, build that strong foundation and that strong mitochondria. When you get those stressors that are going to come, they're going to come that I will be resilient.

Like like you said earlier, how our mitochondria is resilient. So for sure. And you know, resilience is one of the things that we need to work on, you know, mentally, physically, spiritually, emotionally, everything.

And again, I want to give people hope that if you are suffering out there, you can fix these problems and you can fix them naturally. And you don't have to be on medication for the rest of your life.

You know, a couple of tweaks in your diet and lifestyle can make the whole the biggest difference in the world. And so, you know, thank you again for having me on.

This has been fun and I love it. I love sharing the knowledge that I've been blessed to learn so. Absolutely. Dr. Floyd, great to have you on. I really had a great time with our conversation.

I can tell your super passionate. So how can everyone find you if they want to reach out, join your program. Give us the details. You can find thepaleomd.com That's my website.

Then on Instagram, it's thePaleoMD on Facebook, it's the Paleo M. D. And pretty simple, if you right there, the paleo M. D., he can't forget that. Healthy to the core, it's kind of a play on words because it all starts all health starts in the core, in the gut.

Right. So and again, I have a 12 week lifestyle transformation course that I, I just love to share with people and I would love to have people on it because if you have autoimmune disease, it's going to I can guarantee I can make

it better for you.

So awesome. Great to hear. Thank you so much. Thank you again. It's been fun.