Introduction to Gut Health and Heart Disease

Hello and welcome back to the Reversing Heart Disease Summit. I am Doctor Scales on co-hosting this with Doctor Joel Kohn, and we are super excited to have today a speaker, a, an expert in the gut microbiome to talk to us about the connection between the gut microbes and some specific chemicals it can produce down there that actually affect the heart and the protection of the heart.

So welcome our new SIM. Thank you for here. Thank you doctor. It's a pleasure to be here and talk about my favorite subject. I know you're a gut favorite.

You like the guy. So, I want us to start with how what's the connection like, how does gut health actually affect the heart. And then we'll go into some more specifics. Sure.

I think one way to look at it is really, first of all, think about cardiovascular health. I mean, what are some of the, conditions that kind of fall on the CVD, you know, like heart disease, heart failure, or, you know, strokes?

And then what are the risk factors? The risk factors could be anything from smoking, high cholesterol, diabetes, you know, obesity, inactivity, all of these could be some of those risk factors.

And the interesting thing is the gut microbiome is connected in some way to a lot of these risk factors. So you lead let's talk with inflammation. You know that's huge right.

Chronic inflammation is one of the causes or cardiovascular dysfunctions. So we really look at it from a perspective of the gut. You know, when there is an imbalance in the gut, there's a dysbiosis.

Then a lot of these, you know, gram negative and the toxins could leach into the bloodstream and increase, this, inflammation and that inflammation, chronic inflammation could be one of the causes of cardiovascular disease.

Yeah. And, you know, I think really more and more, the more we learn, the more we realize inflammation is the primary cause of cardiovascular disease, right?

TMAO, TMA, and Cardiovascular Risk

Inflammation in the cardiovascular, the, vessel linings, and that leads to the conditions that cause the most common causes of death in this country, which is cardiovascular disease.

Heart disease, number one, and stroke is somewhere around number seven. But in reality, those are the same diseases. So, you know, I think they spread them out so they don't it doesn't look quite so bad.

But inflammation. Yes inflammation. And I want to get into a little bit more of that. And there's a particular chemical that has been getting a lot of attention lately TMO.

And it's a metabolite of, of choline. And it's mostly found in animal based foods. So I want to talk a little bit about how that affects the heart and how we can change the environment in the gut to prevent the formation of tmao.

So to me is, something that the gut bacteria produce when they metabolize, foods that are high in protein. And, and that's largely from things like red need distillery, animal based products and then that TMA is converted to TMA.

Oh, by the liver, you know, by certain enzymes. And that can cause atherosclerosis, blood clots, formation. So it's a lot of things that you don't want happening in your body.

But again, it's again, it's not across the board. Everyone who eats this is it does not mean that they're all going to have that team oatmeal version.

It all depends on what kind of balances in the gut, what kind of bacteria are in your gut. That's why that whole, you biases so good. Gut balance is so important for heart health.

Because even if, let's say your, you are taking in some animal based, foods, if you have better gut, you know, a balance, then you're able to handle that and maybe you don't have the gut bacteria, like, estrogen, for example, which is part of the committee, family, doing that kind of work, you know, behind the scenes.

So I think balanced gut balance is more very important than having a resilient gut microbiome is, monumental for all kinds of health. Yeah. It's great.

And how do how does plant based diet fall into that? How do we hear all the time, especially in this summit from people saying, you know, plant based diet is one of the most protective things you can do for your heart.

So can you tell us a little bit about how eating a fiber rich, colorful, plant based diet will help us with this formation of Tmao? Yeah, definitely. There's no doubt about it.

Plant plant forward diets are super important because and largely because of the fiber that we are not able to digest. It goes into your colon and it acts as fuel for your gut bacteria through to be able to, break that down.

And they produce some very healthy compounds called short chain fatty acids. And these are really important like butyrate propionate because they really help with, you know, bringing that oxidative stress down, keeping your gut, barrier nice and strong.

That's very important to, to make sure that we don't have this, inflammation or an an inflammatory response in the gut. So the gut microbiome produces such incredible components, you know, and, metabolites for us, that's feeding it with these plant based foods, because that's one thing that I always tell my clients, the fibers coming from plant based the plant kingdom, it's not coming from the animal kingdom.

So really largely so we have to really kind of make sure that we have a good source, several sources and have the plant based diversity. So diversity is what the microbiome likes.

It's not about having, loads of one kind of food. And that's something we're all kind of guilty of, right? We tend to be like the same kind of foods every day. And.

Fiber, Plant Diversity, and Short-Chain Fatty Acids

Yeah, but, increasing your diversity, maybe going to Chinese market and trying Chinese broccoli instead of regular broccoli and having different kinds of greens and things like that will increase that fiber component, in your food.

So absolutely, absolutely great ideas. And I know, you have a new book on the market called Feed Your Microbiome to Flourish. And I know that you talk about the tmao, the other chemical that's shown some interest recently in relationship is, let me see if I can say this fentanyl acetyl glutamine patty.

Right. And so how does that affect the gut and how does that then affect the heart? Well, that is a recent study. I think it was out in 2020. And they, said that pharmaceutical glutamine, is something that the gut bacteria produces as it breaks down amino acids from, protein.

And seems to be higher, coming from animal based protein. Not that it, it can't bronze plant based, but seems to be much higher in animal sources. So this, again is not a metabolite that you want.

It's it causes, you know, high blood pressure and, it affects the certain receptors in the heart and that, eventually can cause, heart disease. So, so the gut really is intricately involved in so many functions, you know, in the heart

and the brain and in so many different things.

The liver, it just makes sense to start taking care of the gut and specifically the microbiome, taking care of these gut bacteria, because let's just say you didn't have certain you had some incredible balance.

You know, you for the gut, the microbiome, just many functions for us. It produces vitamins, neurotransmitters and, helps us work towards producing short chain fatty acid.

Those functions are very, very important. Who's doing the function? Not so much. So your gut microbiome could be very different from mine. You know, I mean, the kind of, bacteria that we house.

But as long as they're carrying out these functions, that becomes the more important question. And so with that, I'll plant forward with, diversity, makes a huge difference.

Doctor, to me, I have done so much research in the past three years. I think something else is that something else? But it comes back to fermented foods, high fiber, the right to use plant based foods.

These seem to be the needle movers. And in microbial health and I just lifestyle too, you know, I mean, like, you play with you, you know, you bring in, you know, you know, cut down on this high gene thing, you know, and just and, and work in the garden.

All of that really help. But diet is number one. Diet is number one. I love that. And and, you know, a lot of people aren't talking about the gut connection, right?

We hear a whole lot about lower your LDL and lower your cholesterol and raise your HDL. And cetera. But nobody's talking about these particular kinds of chemicals that are produced in our gut and how they have an effect and the variety of food, you know, the fermented foods, the the colorful fibers.

Right. All of those different colorful fibers have different polyphenols. And all of those are going to help support the microbial down there so that we have a good response so that we're not producing these dangerous chemicals.

Absolutely true. And and to your point about, all the conversations about, LDL and things like that, there was an interesting study out of Korea where I think 1140 people were participants were, they were examined for the the gut microbiome connection to April B, you know, which is like one of the best markers of our school system that we have today.

And they found that people with high April B had, higher amounts of fizzle bacteria, which is like a gram negative. And if you don't have a good balance of that piece of bacteria can cause sudden, you know, problems.

But they found definitely a connection between that high April B and piece of bacteria, not causal, but they found that it was it was present. And they also found that there was certain obesity causing bacteria that were kind of, increased in people with, high boobies.

So that was very interesting to see that there's definitely, a lot of research coming our way, you know, about April B and gut bacteria, some. Well, it's good to know.

And it because it's something we can control, right. We can control what we eat. We control what goes down there.

Other Gut Metabolites and Heart Health

We can control the microbial diverse city of God. So let's talk about a little bit about why diversity is so important and how a fiber rich, plant based diet can support that.

I think I think generosity is important because every plant food will bring you a different kind of fiber. Cellulose is, you know, soluble fiber in soluble fiber.

And even in the proportion in which they are in any kind of food could be different. So if you have green beans, for example, they are high in insoluble fiber.

You take some other food like, prebiotic foods like, onions, leeks and things like that. Red onions, you know, they are wonderful prebiotic foods for our gut.

So every food has something magical that all that, it has to offer. So having a little bit of all of that, seems to make, it and it's really causing a lot of, interest today.

Like, I think you, you probably have heard of, let's try and include about 30 plant based foods, you know, in a week that's taken off like crazy because it's seeing that not only is it helping, the gut microbiome, your biological, age decreases with this, you know, increase in plant based foods.

So that's. Yeah. So it's more than just going on a plant based diet, which a lot of people want to believe because, you know, just going on a plant forward, I like I like that word plant forward plant based diet.

There's a lot of unhealthy plant foods out there or or not naturally derived, but that have been processed in such a way to make them unhealthy. So you can be eating white bread and, crackers and drinking coke, all day long and be on a plant based diet.

But we're talking about a whole foods, plant based diet that's rich in colorful vegetables, containing all these amazing polyphenols. Is that what you're saying? Absolutely.

Because when you're thinking about the highly processed foods, what is the one nutrient that they all to build your fiber? It's completely what those fiber and fiber is something as Americans, very low in this nutrient.

And we probably take in about 50g compared to, these ancient tribes like hogs. So and, you know, we're like hundred and 50g per day and they sound different variety of foods to get your fiber from.

And that protected them. And it will protect us as well. You know, if we introduce all of these different fibers into our into our diet. So when I was, you know, like good tubers, Jerusalem artichoke, you Notaro, and really, you don't need a lot of it.

And I don't think carbohydrates important. A lot of, you know, just, a bad name because, largely because we're not we don't have some of those microbes important and necessary to digest, these carbohydrates.

Microbiome Diversity, FODMAPs, and Supplements

If we did, you know, encourage that. And being, introduce more of these bacteria into our gut that can really break down these carbohydrates and not increase the energy or, caloric intake, you know, then it's not going to make you fat.

It's not going to make you, you know, gain weight. It's it's all about balance in the gut. I think the songbirds did a study comparing, it was, I think maybe 12 weeks.

I can't remember the exact time, but the students comparative study of, fiber versus, fermented fruits within a week. Yeah, it was within a week or so, people saw a difference.

In their gut microbiome with fermented fruits, not so much with the fiber. And your speculation is it's not with the Bible is not helping, these people.

It's just that they didn't have the right microbes at play. So to digest and break down the fiber, if they were given a little bit more time, to grow these, on purpose, grow these bacteria, they feel like they felt like it would have been a different outcome in as far as the study, some that I found very interesting, you know, and after I read that, I said, okay, anyone who's going through a weight loss program with me, let's start with prepacked eggs, because it really

does make a huge difference in fermented foods.

Yeah. Great. Great, great. And you know, we can go we can go on for hours talking about all the questions, how this whole microbial, milieu makes a difference in not just heart disease, but all kinds of things, cancers and autoimmune, etc..

So there's a lot of places to explore, but specifically because this is the Reversing Heart Disease Summit, we're focused on the heart. And what I'm hearing you say is like a fiber supplement is not what we're looking for.

We're looking for all those different fibers in the different foods. So a variety of foods. But just as an aside, what would you say to people who say, well, I've been told to avoid a lot of these foods because they're high in FODMAPs and I have a Sibo problem, or I get bloated after I eat high fiber foods.

How do you talk to them, especially if they are somebody who is at risk of cardiovascular disease or stroke, either based on their family history, genetics, or their previous experiences.

And, and, and and that's right. Right. I mean, they come in and they're not feeling great. The blood, the metabolic picture is not looking that great.

They have high cholesterol. They will be high. Maybe they have a genetic marker like LPA that's also high. So that's not going well as far as cardiovascular health.

But the reality on the ground is that they're not able to handle these foods. The fiber makes them gassy. You know, the ability to stand to and especially if they have something like cyber IBS, you know, a lot of things.

So the the idea is to start with fibers that they can indeed digest and go really slow and purposefully with it. And that's what I do. I don't really push everything on them from the get go.

I go with what is Sibo, what could work for Sibo and then slowly build the health and then eventually they're able to do moderate, that fruits and then maybe in a year or two and a half they're able to do more high that turns there's a high for toxins are really healthy for you.

It's not. It's just that they're not able to handle it. And it's not their fault. It's just a lot of people have gone on crash diets and things like that.

And when you go on these really restrictive diets, it can really affect the microbiome and you're losing out and you're losing some really amazing players who go to path with you.

So our job is to encourage the growth of these bacteria for let's take Aquaman zero, for example. You know, it's gotten a lot of press because it helps with insulin resistance.

It helps with, you know, bringing your weight down, all of that. And there are a couple of companies that have put, Aquaman out on the market. But across the board, I haven't seen Aquaman as a supplement, really helping everybody, you know?

But the Amancio growing foods like pomegranate and dark chocolate, all these polyphenol rich foods that makes it better. That makes more of a change. And I think the biggest thing is how many supplements are you going to take?

Right. Yeah. Supplement. You know, it's it's a big business and a lot of people are pushing it and it seems like the easy way out. But it's a supplement. Yeah.

To a good diet that's getting better and better and better. Look, like you said, as we introduce these new foods, it needs to be supplementary. And yes, there are some amazing supplements that have found great promise with cardiovascular disease.

But we can't just rely on supplements because after a while it gets expensive and people get tired of popping pills. So I like that that point. So where would you leave somebody as we're closing up this this talk together?

I've had a great time chatting with you. Where do we leave people, like, with a good take away from this discussion so that they can make changes that protect their heart?

Yeah, well, I think first of all, I would I would really highly encourage people to have a more, in-depth look at their cardiovascular picture.

Practical Takeaways for Protecting Heart Health

Meaning if their doctor says, oh, you have an, high LDL. See, that doesn't tell you anything, you know? So I would say ask, be your own spokesperson and ask for extensive, extensive tests like, LPA, it will be down costs so much.

It's just that it's made into this big thing, you know, get that, get a good picture of your heart, see what's. And then look at all the risk factors that are modifiable.

You know, that's your smoking and, you know, physical inactivity diet, all of that. And take a good look at these things and say, what is it that I can do?

Like maybe for a week I try like more of a plan for the diet, see how my body responds to it, and then take it from there. And you know, if you're feeling good, you feeling good on these plant based foods and slowly increase it, you know, up plant based, choices, and, that is a better approach than just going full on and just going to try and change.

Everything doesn't work. It doesn't stick. You know what I mean? We know. It's just that it just doesn't. It needs to be nice and slow and steady, and you need to actually see a difference in your body.

So you're able to say, hey, I see a difference. I'm going to stick with it. And those are those are the only ways I think habits stick. If you can see that actually.

Yeah. Thank you for that. It's really important here. And you go through a lot of this in more depth in your book. And I highly recommend will have a link to that on the bio and all that.

But the book is just really recently out, and I think it's, I think it's going to be a very popular book in the, the microbiome and overall health realm, and it's called Feed Your Microbiome to Flourish.

So thank you so much for being here. I really appreciate you. And, I'm so excited to have to share this interview with our followers. Doctor always a pleasure to talk to you.