## Clinical Trial Results on Sugar Shift

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After 90 days, there was a significant drop in endotoxin. And after 180 days, we took a group and unblinded the study and took them on for another 90 days.

And almost all of the endotoxin was gone at that. This is Dr. Talks. Real Talk from Real Doctors on the issues that matter to you most. Welcome to Vitality Made Simple.

This is the podcast that is going to equip you to feel better, look better, and to enjoy better relationships. Well, relationships are the point today.

I've got Martha Carlin. Martha is the founder of Biotequest. And we're going to talk a lot about poop. You know, both. We have, that's our favorite topics.

Isn't it, Martha? Welcome. It is, it is, it is. I love to talk about poop. Oh, it's, you know, it's, it's the universal sign that God gave us to see how we're feeling.

It's super important. And, and I want to, as a disclaimer, folks, I want to tell you that Martha is a good friend of mine.

## Introducing Martha Carlin and BiotiQuest

We met through the signs of poop. And I have zero financial affiliation with anything she does. I buy her products. I love her products, but she is a citizen scientist.

And she was in like the financial biotech. industry. She's super smart. I told her before we started, Martha, please keep this simple for me. I'm not as smart as I look.

And so, um, we're gonna, we're gonna dig deep into some, uh, probiotics that she has. Probiotics were the first area that got me interested in, you know, full body health.

As I was prescribing antibiotics for my patients, I would have them go to Akins at the time. This is, you know, 20 years ago. and buy these refrigerated probiotics.

Well, things have improved. And the thing I like about Martha's probiotics is, is that they are at consortium. In other words, they have these, these bacteria have a relationship with each other.

They are bacteria that help other bacteria bloom. They work together and then they help things in your gut bloom. So it's so different than buying something that's like a single product.

I think this is more like food. This is more what your body recognizes. So Martha, I've done enough of the talking. Tell our listeners briefly about how you got into this.

It's a love story. And then tell them just about the most recent peer-reviewed study that you have. Yes, so my background, as you said, was in business.

Back in 2002, my husband John was diagnosed with Parkinson's, and so I took my business approach, which was

kind of mapping out the whole system, and applied it to Parkinson's because it just didn't make any sense to me that a 44-year-old healthy marathon-running guy could get Parkinson's.

And so that was 23 years ago. And I spent 10 years really looking at the food, what we've done to our food, how that could have connected to what was going on with John and really changing what we were eating and how we were eating.

And he had a lot of great results from that. And then in 2014, I heard about this thing called the microbiome. I was like, what's that? and I read a book by Dr.

Martin Blaser, who was talking about the rise of chronic disease in the age of antibiotics, and his book was called Missing Microbes, and that we were basically indiscriminately taking all these antibiotics, and they were in the food supply in many ways, and that was depleting this microbiome, which were actually more microbial than we are human like maybe two to one in terms of cells but in terms of like genetic functions in the body it's more like 300 to one what the microbes are doing for us so they're kind of our internal pharmacy so I fell in love with microbes And later that year, they showed that they could, the microbiome could divide the two types of Parkinson's.

And I was like, that's it. I stopped what I was doing and started the biocollective collecting poop. So I gradually over the next 10 years kind of became the poop queen.

And when I first started the company, I was out on a hike. and I stopped for lunch and this couple sat down next to me and they said, well, you know, what do you do for a living?

And I was like, well, I collect poop. And I was kind of explaining the bio collective and they had their dog with them and they said, oh, that makes perfect sense to us because that's how we know if our dog is healthy.

If our dog hasn't pooped today, if our dog has diarrhea, if it's having a hard time going, that's how we understand if our dog is healthy. And it just kind of this light bulb went off for me because I think a lot of people don't think about it.

## How the Microbiome Led to Poop Research

They don't look at it. They don't think about it. And so then over the course of, you know, 10 years really started combing through the poop and becoming the poop queen to understand what are these different things that are impacting us and what are the microbes in the gut that can be causing problems and that not only the connection to Parkinson's, but many of these chronic diseases.

And along the way, one of the things I learned is that there's gram-positive bacteria and gram-negative bacteria, and a lot of the gram-negative bacteria produce something called endotoxin.

or lipopolysaccharide, and that's a little bit heavy on the science, but it's basically the cell wall of those bacteria. It's very hard and inflammatory.

And they use it in scientific research models in diabetes, in Parkinson's, in depression. Like you go look in the scientific literature, and there's probably 20 different models that are using endotoxin to drive inflammation in the body.

And they also use it in cell models in science. It's the primary driver of inflammation. And so I was like, wow, you know, I initially made our first product, the sugar shift product for my husband, John, and That was actually designed from a meeting I went to where they showed that this sugar alcohol could actually help stop the aggregation of the proteins and pull it out of the brain.

And so I came back and said, you know, could we make a system or a factory in the gut? And that's where this idea of making teams and using the information that we know about each of the bacteria through their genomes and putting together kind of like you're putting together like the Lakers or, you know, the Knicks or somebody like

that.

You want all the right team players together so that they are, you know, working together to win the game, if you will. And so, you know, I made that product and John had such good results with it.

You know, we just started sharing it with people and people, you know, not just Parkinson's, but any. And we were getting all these positive results and some people were like, this has actually helped my blood sugar.

And so we wanted to do some kind of clinical work to understand the mechanisms and also to look at this endotoxin. Are we able to change the gut and change the endotoxin?

And so we chose to do a study in people with diabetes because it's easier to look at there are very specific markers for diabetes where in something like Parkinson's there's not specific agreed upon markers and so we did a clinical trial of 60 people so we had 30 in each group and in the in the control group they actually took a fiber So they took the same fibers that are in the sugar shift formula and we saw some positive results in some of the markers just with fiber, but we did not see the overall drop in this endotoxin marker, which turned out to be one of the key benefits of the formula.

After 90 days, that there was a significant drop in endotoxin and after 180 days we took a group and unblinded the study and took them on for another 90 days and almost all of the endotoxin was gone at that point.

So we started to look at what's going on in the gut and the metabolism and What's happening is we're restoring the gut with this team of microbes to an anaerobic environment.

So if you think about it, like your gut's not supposed to be full of oxygen. And some of the really key important players in overall gut health are acromansia, bifidobacteria, and fecali-prosnitzia, kind of a mouthful, but those are all very intolerant of oxygen.

So if you can't, if you have an aerobic gut environment, you're not gonna have those three really important gut bacteria that are helping kind of shape your immunity and keep you healthy.

And so what happened was we could see that the whole profile of the gut through the use of sugar shift was shifting back to an anaerobic environment and increasing things like Bifidobacteria increased three percent, you know, we got Ficale prosnitii and Rose Buria and some of these really nice keystone species that either were there in very small amounts or not at all, and they came back.

And so we got a much healthier overall microbiome, plus we got improvement in blood sugar, both fasting and postprandial. We got improvement in triglycerides.

The fiber also helped with the triglycerides. So I always tell people, you know, take, look at some of these fibers because just taking fiber can help you with something like triglycerides.

But the fiber did not help by itself with the blood sugar management or the endotoxin. What kind of fiber did you put in sugar shift? It has a chicory inulin.

Chicory, a chicory inulin. That's great. Yeah. Yeah. We put chicory in our coffee every morning and it's delicious.

## Sugar Shift, Endotoxin, and Gut Health

Yeah. Yeah. It's delicious. So you have an online group that really consistently measures a lot of this stuff. You're doing a sugar shift challenge. So for our listeners, if you had any interest in, you know, having support, Martha has a great support group for lack of a better term, but really a lot of friends, people get to know each other, but you get to monitor and you have speakers on there.

You get to monitor what people are experiencing and they see real results in terms of glucose management, in

terms of weight loss, in terms of mental clarity, you're seeing improvements in sleep, I know.

I had one person, I mean, I love this story. She did the sure-shift challenge with us and she was somebody who was drinking, I think she said seven lattes a day, you know, sweetened lattes.

she was trying to kick sugar because that's one of the other things it does is it helps with it helps with those cravings as it's remodeling the gut and she started taking it and within a week she was down to one latte which she said she didn't drink even all of that and she lost like 15 pounds now we don't you know we don't talk about weight loss with it because you know, people's experiences are very broad depending on what they eat or if they're already off of sugars and things like that.

But that was just a real mind blowing kind of customer feedback for me was that it could have that kind of a profound impact on somebody's life, but also on their budget.

Because I was thinking, how much are you spending on those lattes? Like seven lattes a day, times seven days a week. I mean, you know, you could buy a retirement home for that.

Yeah, no, that's crazy. Well, and I wonder what beneficial results there are in terms of yeast or other things we can look at, say, on a GI map. Everything affects everything.

We try to separate all these things out. And that's specifically why I like your consortiums because they seem to move the needle in so many different ways because our bodies are so interconnected.

I'm sure that they're, I don't know if you've been able to measure it, but I'm sure they're improving zonulin, wouldn't you say? I would think so, but I don't have anybody who has measured that other than John, and he did not have a zonulin issue, which was kind of interesting because I do think like sort of back to him, he was a marathon runner.

This is something that people don't really understand when they're doing endurance exercise, particularly running, which is a pounding type of intense exercise, is that can damage all those membranes, just the vibration of the pounding over and over.

And there's quite a bit of evidence that endurance athletes who are doing, you know, running marathon type things, it opens up the gut and endotoxin leaks over into the bloodstream and they have these sort of inflammatory episodes after a long run.

Yes, Martha, in the patients I've seen, often I see that when they're really actively training, they have diarrhea, and then other times they have constipation.

And in the world of functional medicine, we call that the J-curve. So think of, you know, where you want to be is kind of at that bottom of the J, just, you know, dancing slow.

But if you're doing nothing, you know, if you're just, you know, a couch potato, eating the standard American diet, you might be at the top of the J. But even these ultra fit people are at the other end of the J.

They're not really where they need to be. They're not super healthy. Because of what you talk about and then they just stress their bodies so incredibly and it's hard to have enough Nutrients when you're expending that kind of energy Well, so kind of back to the poop because the poop is the real story is you know, you're talking about the J of diarrhea or constipation or the the most kind of the J of really like I would say that now there's a J of the poop as well or made rules from more of a U because I mean there's something called the Bristol Stools Jail and not everybody knows what that is and I would tell you after 10 years of being the poop queen it it only has seven numbers and that is nowhere near enough numbers to fully describe what's going on in our poop.

But over here in the, I hope I get the, I always flip them. But a one is a really hard like rabbit pellets, very hard to pass the stool. And a seven is like liquid.

And you want to be right smack dab in the middle, you know, smooth sailing like peanut butter, like no mass just slips right out and away you go. And don't take a book in there.

You don't need a bunch of cleanup. Yeah. You know, I say not too hard, not too soft, Goldilocks, just right. It's what you want. You get that signal and it's like, oh, I gotta go poop.

And it takes you like two minutes, but that is not the case with the vast majority of people. And what we actually found in our lab, was as we were processing samples.

So if a lot of people do a stool test and they're just taking a little scoop out of their poop and sending that off, we actually collected the whole thing.

And we homogenized it and put it into little tubes and made it available for other scientists. And so in that process, our lab discovered that they could tell if somebody had Parkinson's just from their stool.

and that it was like concrete, like a, you know, like compacted soil is a very dense colloid. That's the same thing with the Parkinson's stools. It's incredibly dense.

And if you think about that, how painful that can be to pass too, because it's, you know, it's very large, you know, can have a large diameter. And, you know, oftentimes people have to either go to the hospital and deal with a compaction.

And doctors will often prescribe something like Miralax, which can help with the constipation, but is actually really bad for your microbiome. So those are, I mean, I understand the desperation, but so that's been an area of focus for us is really trying to understand what's going on there and the battle in the gut between the good and bad bacteria that's producing this concrete.

And then when it sits in your body, I went nuts the other day. I was watching this little short TED snippet from some GI doctor who said it was okay if it was normal if you only pooped three times a week.

And that's just crazy. Let's go back to the dogs. We know our dog needs to poop every day. we're eating two or three meals a day, you should be removing that waste.

Because if you don't remove the waste, it sits in there and the toxins in that waste are recycling in your system. And then your immune system and all of your metabolic processes are having to deal with those toxins over and over and over again.

So, you know, one of the things that Sugar Shift does also is helps people get going. you know, get going regularly like clockwork. So that's one of the things I hear a lot from people is it has really made my bowel movements like regular.

They, you know, there's no undigested food. It's, you know, I'm the poop confessional. No, it really matters. And I can't tell you how many times I hear the same thing, Martha, with, you know, I go every three days and my doctor said, that's my normal.

And, you know, then I, you know, go into my diatribe about, you don't want to be normal in our world. Normal is, you know.

## Bowel Regularity and Stool Quality

No idea dehydrated irritated frustrated constipated on and on and on and and I want to tell our listeners when I first heard Martha speak and she talked about how they mix the whole the whole bowel movement they you know which is so wise and so important but I remember sitting there thinking if I ever go to Martha's I'm bringing my own blender.

don't want to ease your blender at your house. I mean, you know, all these experiments start in the kitchen. Everything starts at home, at least at our house.

You know, we just, you know, figure it out as we go. So anyway, she has a big lab now, folks, so that's not a problem. So anyway, I want to also hear about antibiotic antidote because this is a really great place for people to start if they're on antibiotics to go to the Biotic Quest website and order some antibiotic antidote.

Tell how you formulated that Martha. Well, that was actually pretty interesting because it was on our radar of products we wanted to develop, but we hadn't worked on it with our computational modeling.

And a good friend of mine who's been an advisor over the years, mother who was in her 80s, had to have her appendix removed and she got septic. And so then they put her on an IV antibiotic for about, I don't know, it was like 30 or 60 days.

And it just totally messed up what she used to have as regular bowel movements. And she was pretty upset about it. And the doctor said, well, that's just how it is.

And maybe it'll come back, maybe it won't. And she just was not feeling herself or feeling well. Steve knew that we had been talking about this and he said, you know, are you going to make that antibiotic antidote?

And so I sat down with Raul and we went back and looked at it and put it back in our model. And the idea for it actually came, there was some research out of a university in Israel that had looked at this 11 strain formula and used it after antibiotics and it actually made things worse.

And so Raoul and I were looking at that. And of course, you know, he's got the greatest command of microbes of anyone I've ever met. And he looked at it and he said, well, I can tell you why they had a problem from the beginning is because this combination of microbes is going to make the whole environment too acidic.

And it's not going to allow for the whole microbiome to rebound. And so we looked at it and put our team together to balance the pH so that you could restore a broader profile of gut bacteria.

And so we said, OK, well, we'll make a tiny batch so your mom can have some. And we made just a small run of 200 bottles and we sold out like bam. And so we're like, okay, there's something to this.

And people are exposed so often. So now I hear from lots of people who have either are about to take antibiotics or have taken antibiotics and have sort of a history of it disrupting their GI tract, who take that and say, it's made a huge difference.

Along the way, my son Charlie, who works for me, he wears one of those little loop walk, it's a tracker that has a stress management and a heart rate variability.

He had to take antibiotics for something. I can't remember what it was, but so he started taking the antibiotic antidote and he was looking at his whoop data.

And if he forgot to take it, he would have, you know, it would mess up his heart rate variability. And when he took the antibiotic antidote, he had a much better heart rate variability.

So we're actually, we just sent out a message to our loyal people to see if there's anybody interested who has an Oura ring or a whoop or some kind of Apple watch that's measuring heart rate variability, to look at that and see if other people experience the same thing because then it has broader application than just restoring after the antibiotics.

But people don't realize that they're even exposed to antibiotic type ingredients in food. And I like to use the example of you know the little tubs of either guacamole or hummus that you get at the store.

That's like a petri dish for growing bacteria. And so they put these anti-enzymatic or anti-microbial type things on the top of that so that it won't grow bacteria and it has a longer shelf life.

But of course you think about that, if you're scooping off the top of that, you're eating that. And that if it's anti-enzymatic, it's also gonna affect the enzymes in your gut and the ability to digest food.

Yes, and just the chlorine in the water, all of it. I mean, who in the heck knows what all new things our guts are dealing with in the last hundred years.

It's really wild. Well, you've studied bifidobacterium a lot, and you found some pretty interesting things about bifido. Tell our listeners about that.

So bifidobacteria can fluoresce light and this goes all the way back to the beginning of poop collecting actually and looking at the data of the genes in the microbiome of people and finding that there were genes involved in what would be sort of associated with photosynthesis.

And, you know, I called up one of my scientific friends and I'm like, there are genes involved with photosynthesis in the gut. And he said, that can't be true.

There's no light in the gut. And I was like, well, you know, the sunlight and different spectrum of light is absorbed into the skin and tissues. You know, they use lasers, all these different things.

And he said, well, okay, I guess you're right. And then bacteria actually emit light as a signal. I mean, we know that from there's the one that's in the tides that can cause the problem with it's like Vibrio with the oysters.

you know, you can get this fluorescent sheen in the ocean and that's the Vibrio bacteria. And they, you know, when they get to a certain level, they start emitting light.

Well, Bifidobacteria actually emits light and they can distinguish different species by the different light that they're emitting.

## Antibiotic Antidote and Recovery Support

So what it does is it absorbs the very low frequency UV light and then sends it back out. And so, you know, being in the sunlight and then absorbing that light and then having the bifido emit it.

But bifido bacteria is Those are so important to our immune system and the training of our immune system. There's something called bifido and fantis that babies are supposed to be populated with, and breast milk specifically feeds it.

But in the Western world, a lot of our babies have lost it. We're formula-fed. you know, just over time these things have depleted the bifidobacteria that is so important for colonizing initially only bifidobacteria and training that immune system.

And so the other thing during COVID actually, Dr. Sabin Hazen, Hazan, I never get it right, but she actually had the forethought to do some before and after testing, and she actually found that COVID and the vaccine, so either one of those, so it's probably the spike protein itself, because you get that either with having COVID or with the vaccine, but it specifically targets and kills bifidobacteria.

And that's so important to our immune system, and you know I don't know like I think about the light and you can tell when people are kind of lit up so I mean you know it makes me I mean there's no science behind that but you know I bet you have some bifidobacteria because you're always full of you're always glowing and full of light so but it's really important that we start to restore the bifidobacteria.

And so in our formulas, we do always have one or two strains with a specific function and behavior in mind, but the

overall, like I said at the beginning, the restoring of the anaerobic state in the gut will also support those bifidobacteria.

And then they like, There are specific carbohydrates or fibers that feed different bacteria, and bifida bacteria particularly like something called xylo-oligosaccharides, and I think acacia fiber is also a good fiber for…

I think recently I was looking at something like Citrus Pectin might also help. So, you know, some of those different fibers, you can help to feed those bacteria.

And I was recently doing a blog write up about carnivore diet kind of before and after or long-term keto and Because when you're in the that really really low carb state of a carnivore You're not you're not eating those fibers that feed the bifidobacteria.

So I think even for You know people who are doing carnivore like Paul Saladino now eats fruit and and talks about fruit and that sort of thing. I think it's very important if you're going to follow a carnivore or a very, very low carb ketogenic lifestyle that you look at and find some specific carbohydrates to feed those bifida bacteria.

Interestingly, Martha, on the GI map, I often find acromansia too high in people who are carnivore or keto, you know, not getting enough carbs to feed acromancia.

So in what you've found over the years and what you've seen and all the people you've studied, how has that changed what you eat? Well, it's, you know, early in my busy career that I had, you know, I was eating out at restaurants a lot, you know, getting carry out, like prep, yeah, I'm ashamed to say my kids, a box of macaroni was, you know, sometimes, you know, I didn't, you know, on the cast.

I didn't know any better. And so now, 90, I'd say probably 95 to 97% of my meals are eaten at home. And if I am eating out, I'm making the wisest choice I can make off the menu.

But it's really hard in restaurants. You don't know the food sourcing. You don't know. So, I mean, it's hardest probably when I travel because I'll either try to fast more and eat fewer meals now so that, you know, if I'm gone for five or six days, I'm not eating you know, 15 meals out at a restaurant where I don't know where it's coming from.

And so real food, I have, you know, I moved to a farm. So I have my own cows, my own chickens and my own little garden. So I try to eat food where I know exactly where it came from or I'm going.

to the farmer's market where I have a conversation with the farmer. I have this great little pork farmer who is at my farmer's market and I ask him all the questions about how he's growing them and what they're eating and you can taste the difference.

It's amazing. And it's really not that hard to do these days because there are local farmers markets all over the place. And we need to support those farmers too because the diversity and what we get from having those local farming communities is so important, not just for our access to healthy food, but also just for the tightness of the community.

Yeah, Joel Saliton was on the podcast a couple of months ago and we had such a robust conversation. He was saying that so many of the farmers are retiring, you know, they're in their 60s and 70s and older.

So hopefully there'll be a whole bunch of young people who want to have these little homesteads and take their food to the farmer's market and you know do the rotational grazing like Joel talks about and then everything does taste better.

## Bifidobacteria, Light, and Immune Health

I would I would challenge people listening if you're if you're buying regular beef try some rotationally grazed grass-finished beef, grass-fed, grass-finished beef.

You won't believe the difference. It's shocking, isn't it? It is. And even a cantaloupe. We stopped at a free stand and got a cantaloupe the other day and it was like, wow, this is so good.

This is full of life, probably. That's probably it. Flavor. Flavor. The cantaloupe you get at the grocery store and you get it home and it's, you know, it's got the colors a little pale and it just doesn't have that intense sweetness of Like real food.

or what they've done to the tomatoes just, you know, slays me because I mean, I grew up in Kentucky. I'm back in Kentucky at the farm now, but tomatoes, you know, all the years in Colorado, they're hard to grow out there, but you know, they're all coming from whatever they do with these tomatoes and they don't have any flavor at all.

And they, they have a really long shelf life, but you know, I grew up on tomatoes. I walked outside, pulled it off the plant and just ate it like a, An apple?

Dirt in a fall. Yeah, dirt in a fall. It's so fabulous. I mean, it's just got that indescribable flavor. Yeah, no, it's so good. It kind of, once you retrain your taste buds, you don't want the other stuff.

It's just, you know, it doesn't taste good at all. Now you have some other formulations that are consortiums of bacteria. I know you have a simple slumber, which helps people sleep.

Just kind of touch on that. And I want to hear about the newest formulation you have. Sure. So simple slumber we formulated. So people don't realize bacteria also make melatonin.

And the bacteria, sort of back to that light, they're getting the signals of light the same way we are, the morning light, the darkness at night. And they produce melatonin that can help us sleep, and they also produce tryptophan, which can help us sleep.

So we made a formula that works together to help produce bacterial melatonin and tryptophan to help you just fall asleep gently work for about seven hours and then kind of go on its way and you wake up rested and and feeling great and not groggy and you know melatonin supplements I just actually learned this because we had Lynn Peoples on our book club who wrote the book The Inner Clock is that taking melatonin can actually disrupt your circadian clock depending on what time you take it it can either push your clock forward or backward.

So I'm much more mindful when talking to people about, you know, maybe not a good idea to take melatonin as a supplement because of what it can do to your circadian clock.

Well, and when these bacteria are producing what our bodies naturally require, it's just so different than taking anything, any kind of sleep medicine, you know, anything at all.

So there's one I'm forgetting, Martha, another formulation you have. Well, ideal immunity is one. Yeah, ideal immunity is one I like to talk about. That's what I was forgetting.

Ideal immunity, yeah. It's very, effective against a lot of the foodborne pathogens and we see a lot of people who get food poisoning or something and they never really fully recover.

Well, we had a doctor in Hawaii who Basically, in the 1970s, he had a patient who returned from the Amazon jungle with some funky something, and he got whatever it was from his patient.

And so from 1970 till, you know, four years ago when he found our product, he had tried literally everything. you know, Lamodal, like all the anti-diarrheals.

He was taking them multiple times a day. He had tried all these different probiotics and his daughter said, you know, you need to try this new probiotic.

And he's like, it's not going to work. And it, it worked for him. And he said, it was like, he got his life back, but he, I

mean, can you imagine 40 years of severe chronic diarrhea?

When I got nutrient depletion, I'm surprised he didn't have Alzheimer's disease. You know, seriously, with just nutrient depletion. The other, you know, in our Petri dish lab test with one of the strains in there was 100% effective at killing all Listeria.

And Listeria is kind of interesting. I didn't realize, but it can be associated with miscarriage and problems in pregnancy. And so that was kind of an interesting aha for me, you know.

seeing that connection but so anyway it's very effective against Listeria, E. coli, Salmonella all of that and those are some of those are the gram negative bugs that are producing that endotoxin so if you get if you get food poisoning and you're struggling to get back that's a great one I always tell people you know take it if you're going on foreign travel or you know, if you eat out a lot in restaurants, because that's the place where you get exposed to these kind of bugs.

So it's just a great kind of prophylactic thing to have in your cabinet.

## Diet, Food Quality, and Microbiome Support

And then we have one called Heart-Centered, and that is for cardiovascular support, and the bacteria work together to produce CoQ10, which supports heart ill, nitrous oxide, and some of those B vitamins and, you know, just kind of that overall energy support that you need to support heart health.

Yeah, I wonder if some of those actually become oral microbes since they help produce nitric oxide. You know, so many of the bacteria in the mouth that are the good guys support nitric oxide production.

So then you drum roll have a new a new formulation and I think it's going to be a super duper star Martha. Tell us tell us tell us. Well this one is near and dear to my heart I've had it on the radar to bring out for a while and I was like this is definitely the year to do it's called Perfect Peace because so many people are under incredible stress and anxiety and The perfect piece is designed to support GABA, which has a calming effect.

It does have a little bit of tyrosine and tryptophan, which helps feed the microbes, but those are also important amino acids for calming the nervous system.

One, also I wanted to make for my daughter who also suffers from anxiety and stress and kind of that whole generation that's her age in the late 20s, early 30s that have grown up with all this constant information and just constant stress.

And so we just brought that out about a week and a half ago. So I've had it for about three weeks. and I was really surprised myself because I don't think of myself as being stressed although you know I do probably have a stressful life but I took one one afternoon where I could sort of feel feel the stress building and I took it and what probably 15, 20 minutes, I was like, wow, I'm feeling so much calmer.

So Charlie, again, back to his whoop, you know, he has his whatever the stress score, he doesn't know how they actually what all factors go into it. But he has a, you know, pretty stressful stress score and even at night while he's sleeping and he took it about 30 minutes before bedtime and you could see the drop in the smoothing of his line and this you know nice calm no stress peaceful sleep and so I'm pretty excited about it.

I usually take it about the middle of the day where I sort of feel my intensity of work and everything kind of building up to a level of stress. But you can take it in the morning or in the evening before you go to bed.

And I think that's going to be one that really resonates with people because there's so much stress in our world today. There is, I didn't even have anxiety on my health history until about six years ago.

And now brain fog and anxiety are both on there. And so many people are suffering. So I'm so glad that you have

this formulation because everything you do Martha Carlin is done to the bonus credit.

You don't just try to make an A plus, you always make bonus credit. And I so appreciate that about you. For our listeners, Martha and Gail and I have a group text.

And a lot of times, I mean, my eyes just cross. Martha will start talking about some things she just figured out. And I'm like, oh my gosh, I need to go shoot some baskets.

I need to go play ping pong. I need to, you know. It's just amazing what you do. I admire you so greatly and, and I love, um, I love your story because, uh, you know, you lost John, you, you gave him so many more years of, of good life because of, of your, um, tenacity and I know that you said that your misery, God sort of turned it into your mission.

So thank you for that, Martha. Well, I appreciate that and I thank John for the hardest part of the journey that he had to teach me everything. without his journey, I wouldn't be here.

So I am very grateful for that. And I was talking to a young woman who's lost her mother from Parkinson's earlier today.

## Sleep, Immunity, Heart Health, and Peace

And it makes me sad that all this work, that there are people I haven't been able to make enough progress to turn it around for these people, but I do think we're so, so close to really being able to understand these underlying factors, the total toxic burden, the microbiome factors, and all of that so that people won't get Parkinson's because we can tell them how to prevent it and people won't get all of these chronic diseases because we'll understand how important the gut is and we'll be taking care of that and pulling all those.

We haven't even talked about the oral microbiome. You and Gail have taught me so much about that. It's all connected and how important it is. You brought up nitric oxide.

I make my little beet kvass and swish it around in my mouth every morning when I get up and at night before I go to bed so that I know I have my nitric oxide bacteria in there.

Yeah, we're all learning from each other. Dr. Nathan Bryan was on the podcast and I met him at A4M probably 10 years ago and I was utterly even just 10 years ago shocked that the oral microbiome was important for producing such an essential chemical for full body health.

So we're all learning from each other. We all have lots to learn. The more I learn, the more I know I don't know. So it's a super fun journey. It is. It is.

And it's a super fun journey to be on with people like you. Well, thank you. Thank you for your time today. Tell our listeners exactly how to find you.

You can find us. You can find our probiotics on B-I-O-T-I-Q-U-E-S-T. So that's BiotiQuest, which is like LifeQuest. And we also have a YouTube channel where we have lots of educational material.

And that's also under YouTube biotic quest. And I have a, if you're interested in Parkinson's, I have a Parkinson's blog, Martha's quest. And I also have a sub stack where I write about the microbiome generally, and also specific to Parkinson's.

And that's also called Martha's quest. Yeah, you hear the love in that Martha's Quest. That's so wonderful. Are you on Instagram? Oh, yeah. I mean, are you?

Yeah, yeah, we're on Instagram. So at at biotic quest on Instagram and we do. Yeah. You know, we post shorts and educational things on there and try to be fun, but we're nowhere near as fun as you are on Instagram, Debbie.

I love your videos. Oh, thank you. I've got a funny one planned for today. So thank you. I appreciate the support. I'm not sure I need the encouragement, but thank you anyway.

But thank you and thank you. You know, I think humor is like one of the main things for health span and vitality. So, um, Martha and I just have had so much fun together.

We're going to have a lot more fun together through the years. And to all our listeners, go out and have some fun. You know, I'm going to go freak the neighbor kids out and shoot some baskets.

I see this old lady out there and they're just like, ah, I say, come on over. I'll play a game of horse. And, uh, you know, I always win. So, um, anyway, so thank you all for listening.

Join me on Instagram, uh, join Martha on Instagram and go, go get you some probiotics. Uh, we have, we have them in our cabinet. We take, we take sure shift every night in these.

others kind of based on how we need them and and we eat well but I think in our world it's just imperative to make sure that you are nourishing your microbiome there's a lot of trashy pills out there I don't don't believe very much that comes along but I believe Martha Carlin so thank you Martha for your time and thank you listeners we're now in 145 countries and I think about 6,500 cities And that's thanks to you.

Please subscribe. Oh, please share. I'm supposed to say all this stuff that I forget to say. And please send me, give me a comment, a good one if you have one.

Blessings until next time. Thank you for tuning into Dr. Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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