



Can Curcumin Hurt Your Microbiome?

With Dr. John Gildea and Dr. Martin Katz

April 20, 2022

David Roberts (00:00):

Hey everybody. It's David Roberts, and you're listening to the Mora labs podcast, and today, I have Dr. John Gildea and Dr. Martin Katz with me, and we're going to talk about curcumin as it relates to the microbiome, and this is a pretty important topic, in that curcumin has antimicrobial properties, and curcumin also has poor bioavailability, and so there's this balance of needing to take quite a bit of curcumin to get it into your bloodstream, to make it bioavailable, to get the benefits that you read about in the science literature. So I think back to when Mora was trying to treat her cancer with Meriva, a form of curcumin, she was taking, I think, at her peak, 17 of those capsules a day, which is multiple grams, trying to get the curcumin in, not really succeeding, but in retrospect, that was probably having a detrimental impact on her microbiome. Let's dive in, and so we'll start with John. Martin, you dive in as you see fit.

John Gildea (01:04):

Obviously, the topic of the microbiome, it's probably a good idea to get a little bit of introduction, in that, why is the microbiome such an important topic right now? I think you can summarize a lot of things by saying, probably, I have issues with altering the microbiome through the ability to kill bacteria so well. So most people have had lots of rounds of antibiotics, have killed off portions of your microbiome, and the issue with that is that once it's completely gone, you can't replace it unless you get a fecal transplant or you just happen to run into that microbe during some of your fermented food interactions.

Martin Katz (01:50):

Can I jump in there real quick?

John Gildea (01:51):

Yeah, definitely. Go at it.

Martin Katz (01:53):

To add onto that, there's this whole idea called the hygiene hypothesis. So we're living in four walls. We go from these four walls to a car to an office, and unfortunately, there's carpet and furniture, and all these things are treated and sprayed, and our food is sprayed and treated, and so we are very quickly a lack of diversity to our microbiome, and probably an increase in some pathogens that can create further disease. So this is an incredibly important topic on many, many levels. So it's not just antibiotic use, because I have people coming in and saying, "You know what? I've actually not taken an antibiotic," and I'm like, "Well, where have you lived? What have you done?" "Well, my mom does over clean. She keeps an insanely clean house," which, to most of us, would be not a bad thing, but ultimately, using Clorox or some other product probably is not that great.

David Roberts (02:46):

My boys don't have to worry about that.

Martin Katz (02:49):

I've seen your house. I agree, and my children don't either. Part of the reason we actually moved to a farm was to get them out, get them dirty, and get a plethora of microbiome, and I don't remember the study, hopefully we can find it, but there was this very interesting study on people living in the UK,

where they tested their microbiome, sent them to Africa, living with the tribe, and their microbiome improved something incredible, and within, I think it was three weeks of returning to the UK, their microbiome was back down to 20% of what it was while they were in Africa. This just speaks to what we're seeing.

David Roberts ([03:34](#)):

Do you have that paper we can include?

Martin Katz ([03:36](#)):

I'm hoping I can find it, because it is a fantastic representation of what we deal with on an everyday... What I deal with, certainly, in the clinic on an everyday basis.

David Roberts ([03:45](#)):

It's very non-committal of you.

John Gildea ([03:48](#)):

There are other ones that are similar to that. We'll find an equivalent.

David Roberts ([03:51](#)):

Yeah. I have one, actually, that I'll link, on two populations of children. One in the first world, one in Africa.

John Gildea ([04:01](#)):

Yeah. Those are great for orientation, getting us oriented, and then some of the other things that a lot of people don't realize is our food system itself is completely made devoid of microbes as well, and most cultures, historic cultures, have fermented food as part of their cuisine, and so things like emulsifiers in food also tend to kill off the microbiome. The general idea of, if you are changing the species composition of your intestine, it's switching towards more pro-inflammatory, and then when you add things like fiber, which Martin is always talking about getting more fiber in your diet, that switch that happens there is really critical in terms of switching over to anti-inflammatory, your production of butyrate and propionate so that it quells your inflammation. So those are really big, wide sweeping topics on the microbiome, and Martin probably could talk all day on how you can generally push it in the right direction.

Martin Katz ([05:07](#)):

Yeah, and I'm going to keep it very short now, but variety of fibers is absolutely key.

David Roberts ([05:16](#)):

Yeah. So let's circle back, because that's a good basis for the conversation. Curcumin and microbiome.

John Gildea ([05:23](#)):

So in the case of curcumin, when I think about that topic, so there's a lot of people that are treating their dysbiosis, or SIBO, small intestinal bacteria overgrowth, with curcumin, and the reason that works so well is that it tends to change the microbiome composition towards beneficial bacterial strains, and I think it can be super helpful in that area, but the doubt comes in in whether you should have sustained

very high doses of curcumin in order to have that maximally diverse microbiome that we're talking about. Letting those species that are beneficial really grow, and feeding them both the fibers, the undigestible fibers, that are the food of the microbiome, and then also, the bioflavonoids, which are, a lot of people don't realize that they actually can be food for beneficial microbes.

John Gildea ([06:26](#)):

So in our case, we're trying to achieve bioavailability of curcumin, but the benefit there is that it's absorbed in your small intestine. A big component of it is absorbed, and because we have a carrier protein, those doses are not in the gram ranges to start with, so we're getting a lot absorbed, and therefore, we're not delivering nearly as much to your colon, where your majority of your microbiome is supposed to stay resident. So having a decent dose in your small intestine is pushing back on the SIBO, small intestinal bacterial overgrowth, and then it's also not a high enough dose to adversely affect your colon microbiome, which you want to be able to flourish.

David Roberts ([07:20](#)):

So that said, people tend to take... You, Martin, prescribed to CurcElites at a time, which is not enough to impact, but then some people are like, "Well, can I take four at a time?" What's sort of the upper limit of what you can take for our brand, which is CurcElite, and then what is sort of an upper limit of, let's say, another brand like Meriva?

John Gildea ([07:53](#)):

Yeah. So I'm not sure it's completely known what are the levels that start having adverse effects. I think until we know... Because there are decently long studies where they're measuring the microbiome out at months, months range, but there aren't long term studies. So I think the harm there comes from large doses, I'd say, multiple gram doses over long periods of time, that it's not really known whether that's negatively affecting the microbiome.

Martin Katz ([08:30](#)):

Yeah. The other thing, just talking about this microbiome and how important... I have a fair amount of folks say they can't tolerate curcumin, and most of it is a GI effect, and so it'd be like taking oregano oil for a prolonged period. You are affecting the microbiome and having [inaudible 00:08:47], likely then affecting, possibly, the tight junctions and what have you. So you really need to be careful about how much or how long you're taking these molecules.

John Gildea ([09:01](#)):

I'm sure you've run into this too, is that if you are killing off bacteria often, in its place comes fungal species, and so that's another one, is, are you unleashing some fungal species if you're killing off your microbiome? It turns out curcumin is good in that for balance, because it is antifungal as well.

Martin Katz ([09:24](#)):

Sulforaphane, as well.

John Gildea ([09:26](#)):

Yep.

Martin Katz (09:27):

To speak on the other side, again, when folks come in and say, "Well, I haven't done this, I haven't done that," when I'm asking them, have they traveled or have they done and antibiotics, or what was their upbringing like, and all of it seems to be okay, another thing that is detrimental to all this is stress, and the effect that stress has on the microbiome, and that's been studied over and over again, and this is where this point you're making, John, where pathogenic bacteria can really take over a microbiome that's insufficient, and you start seeing E coli, pathogenic E coli coming, and chlamydia and all these other... Excuse me, clostridium and all these other... I'm not sure where chlamydia came in, but clostridium species come in, and these can be extraordinarily detrimental to health, and again, inflammation, oxidative stress.

John Gildea (10:21):

Yeah. The salmonella, all the classic ones that we have associated with diseases... Where they call that the general idea of... Putrefication of the rest of your body, if you're not containing it in your large intestines, and you're not keeping your membranes intact. It's not just LPS that can leak. If it's severe, you can get actual bacteria outside of it, and then, I'm sure you know this component of it too, is if you are stressed, cortisol's high, usually means your blood sugars are high.

Martin Katz (11:00):

Absolutely.

John Gildea (11:00):

That's going to allow those bacteria to infiltrate other sites, and they do. Unfortunately, they find bacteria kind of all over the place. Putrefication of the rest of your body is a bad thing.

Martin Katz (11:12):

Yeah, and going back to chlamydia, I will have to save myself there. It was chlamydia and studies of the heart, actually.

John Gildea (11:19):

Goodness.

Martin Katz (11:19):

Yeah, and it was actually oral, not genital.

David Roberts (11:23):

Way to rebound.

Martin Katz (11:24):

Yeah, thank you.

John Gildea (11:25):

That's a good...

Martin Katz ([11:25](#)):

Yeah.

David Roberts ([11:26](#)):

All right. Well, this has been very helpful, and we will share more as it comes up, but thank you, gentlemen, for your thoughts today on curcumin and microbiome, and specifically CurcElite.

Martin Katz ([11:41](#)):

Can I just mention... I don't know if we've actually specifically said why we like our curcumin so much. Have we specifically said because of how [inaudible 00:11:51]...

David Roberts ([11:50](#)):

Please, please. Do share.

Martin Katz ([11:54](#)):

Well, I think we've alluded to it, but I don't think we've actually said specifically that we are proud to say that we are now patented in our delivery system, and how we get it into the system is a way that, again, it's staying out of the large intestine and it's getting to where we want it in the cell, in a bioavailable quantity that makes a biologic effect.

David Roberts ([12:23](#)):

So John, from your research on CurcElite, what would you say the... How much more bioavailable is CurcElite and the next best competitor?

John Gildea ([12:36](#)):

I think the way to bring it to easily understandable measurements is you can see it.

David Roberts ([12:47](#)):

You can see it in your urine. Yeah. That makes it pretty profound. Yeah. We'll close with an aside, I first took CurcElite, and I struggled with drinking water and woke up the next morning, and I was just like... At that point, I was trying to drink more water, and I'm like, "Wow, I am so dehydrated," and then I'm like, "Well, wait a second. I drank a ton of water yesterday and some at night. Could this be the curcumin?" Ring John. John laughs. "Yes. That is the curcumin that you're seeing. You're not dehydrated, David."

David Roberts ([13:26](#)):

So it does that, and this is a common mis... If it does not get into... If the curcumin does not become bioavailable, you excrete it through your feces. If it does become bioavailable, you excrete different degraded forms of curcumin in your urine. So that's what John's sharing about. You will not see other forms of curcumin that you can buy over the counter in your urine. So... Great. All right, gentlemen. Thank you so much.

Martin Katz ([13:59](#)):

Thank you. Take care of your human.

John Gildea (14:02):

Bye.

David Roberts (14:02):

Bye bye.