

MERYL: Welcome back, everybody, the Rebel Nutritionist Podcast, part two. Woohoo. Here we go with Dr. Cheryl Burdette. We finished part one with our allergy and sensitivity conversation, and we're gonna dive right into part two, everything about the gut microbiome.

So welcome back Cheryl.

CHERYL: Thank you for having me.

MERYL: So let's get right into it, you know? Yeah. Clarify for people what is the gut microbiome, because I think people. Say to me, oh, well **I don't really need to test my gut cuz you know, I don't have problems pooping and I don't have indigestion or reflux.**

So like, explain this to people.

CHERYL: Yeah, absolutely. And so, so unfortunately or fortunately, maybe let's just say fortunately, glass half full, **what starts in the gut doesn't stop in the gut because if that were the case, the foods we eat being broken down into nutrients would never get into our body.**

So, of course we're able to absorb nutrients and what happens in the gut has this effect on the rest of our body a systemic effect. **So now if you have the opposite, maybe you have a reaction to food that creates inflammation that doesn't necessarily stay in the gut. And so it will create a trigger for things called cytokines and interleukins.**

And, they have names like I L six and TNF Alpha, **but those float around the body and they tend to create inflammation in the area that might just. Be your genetic susceptibility.** So maybe we are weaker in terms of cardiovascular disease. Well those inflammatory mediators can damage cholesterol, make it something called oxidized LDL, which is the one that's most likely to form a plaque or maybe just more of a sensitive brain.

And so that same IL six, that inflammatory mediator from the gut. **In the brain, it can block our ability to make certain neurotransmitters like serotonin. And so this can be a reason for feeling depressed,** so that inflammation that starts in the gut doesn't just stay there. And if, **and some people, their genetic weak spot isn't the gut, and so they don't feel anything there, but they'll feel it elsewhere in the body.**

And so this means that our gut-based inflammation can be responsible for a lot of symptoms. Now if you look at, for example, people with irritable bowel syndrome, they do have an increased risk of depression over people that don't have irritable bowel syndrome, but, You might have a stronger gut, you don't feel it there, and the inflammation that starts there is still a reason for why you're feeling more depressed.

So it has an effect across the body, not just in the gut.

MERYL: And, and I think people are, are seeing that more and more especially with all the literature that's come out about it. And it's making its way across every right,, every social media and news channel, which is good. It's alerting people to that.

### **So things like arthritis can be connected to our gut, right?**

CHERYL: Yes, a hundred percent. And so there are a couple of mechanisms, at least by which that would be true.

So the first we talked about in part one for these food sensitivities. And so you're making these antibodies, they're attacking food because they're confused.

That food leaked through intact. It was larger than normal. **You made these antibodies, but those antibodies aren't perfect. They attack the food. But some of the proteins in your joint tissue can look similar, and so they cross-react and they begin to attack the tissue in the joint.**

The second thing that can happen, you have this inflamed gut. You're more permeable. It causes **the microbiome, the bacteria that's there to become imbalanced. And we begin to grow more of these bad guys and our good guys begin to dwindle.** And those bad guys shed little bits. Of their outsides, they're called lipopolysaccharides, and then those get absorbed because the gut is leaky.

And so those lipopolysaccharides, they actually, for example, **if I biopsy the synovial fluid of somebody with rheumatoid arthritis, I will find more of these lipopolysaccharides in the joint tissue that came from the gut.**

**And so these things that happen in the gut float around and then can ignite inflammation in other parts of our body.**

And so it's a another way that what's happening in the gut contributes to rheumatoid arthritis.

I guess I'll add a third to that. And in your healthy normal microbiome, it's the good guys. They send signals to the rest of your immune system that says, Hey. We feel good here in the gut. Things are going right.

Don't get crazy. The rest of the immune system can kind of take a break. Calm down. **So they directly send anti-inflammatory signals that keep the immune system in balance, and this is the beauty of these gut-based interventions for immune health.** They don't suppress the immune system if you get a cold or a flu.

In fact, you'll probably fight that better. But they also don't augment the immune system. So if you have an autoimmune disease, it doesn't make it worse. These are the ways we put that immune system back in balance. Right.

MERYL: That's great. So back, so let's go back to talking about right, the, the entire system, I mean, digestion starts in the mouth, right?

So our oral health, our stomach in terms of digestive enzymes. So let's talk, because **so many people are on these proton pump inhibitors or acid blockers**, right? The, the nexiums of the world, whatever, right? All of these, all of these proton pump inhibitors and acid blockers.

Can you talk for a minute about how. Bad. They are.

CHERYL: Yes, absolutely. I mean, and, and I don't even have to say it. The side of the box says it. So if you look right there in the insert or the side of the box, it says not, **not intended for long-term use. And so, but yet so many people get stuck on them and they take them for forever.**

But so the first thing is that **they decrease hydrochloric acid and that is stomach acid.** And that is the fir, well, maybe not the first phase. Like you said, it starts in the mouth, digestive enzymes there. But then our, our second big player's, **the hydrochloric acid in the stomach, that should break down all these carbohydrates and proteins and break them down into these little bits that the immune system won't see as weird** or foreign.

And so when you block hydrochloric acid, you don't break these proteins down like you should, and they look weird to the immune system. And this isn't your opinion, this isn't my opinion. This is **peer reviewed medical research that says that what they're called PPIs, proton pump inhibitors have increased the incidence of both igg and ige allergies and sensitivity.** So it's a known fact that they do that.

In addition to that they also interfere with what are called osteoblasts and osteoclasts. Those are the, those are cells in your bone matrix that determine bone density, so **they impair bone density as well**, and it looks like they could be having some impact on the mitochondria.

Another thing they do is **they inhibit your body's production of something called diamine oxidase. And that's the major enzyme that degrades histamine.** So now here's this thing that was supposed to be helping you feel better in the gut, but it's inhibiting your ability to break down histamine that'll make you feel worse in your gut.

And so again, you see why people get just stuck on these and then, and, and aren't able to move forward.

MERYL: Right. And so it's, so it goes back to, and this is the work that we do. I mean, I get so many people in here who want off, who are not feeling well, and we do, we get 'em off. I mean, it's definitely a process, right?

But it is the process of rebuilding that whole system, right? So when people come in and they're like, oh, wait a minute. But, I we talk about the whole acid thing. Well, if I don't take my

medication, I'm gonna feel that heartburn. And I'm like, okay. Right. So explaining to them that really it's cuz they have too little acid, not too much acid.

Can you address that?

CHERYL: Yeah, absolutely. So and a couple other things happen with those that I haven't even mentioned. And first is that **they create atrophy of the gut lining**. And so the second thing they do is there are these cells that produce hydrochloric acids. So you get on something to block acid, the body's wise, it goes, oh my gosh, I need acid.

So it makes more of those cells. So now you have even more of the cells that make acid. So you come off the medication and you go and, and you go, oh my gosh, I burn even more than I did when I went on to this. Well, **that's to be expected because your body made more cells to produce more hydrochloric acid**. So it feels worse at first.

Second **they also. Decrease blood flow to the gut, which atrophies the lining. So now your lining's even thinner**. So yes, you feel worse. **So you can't cold Turkey, you have to go slow**. It has to be a stepwise process. But yes that kind of feeling of it's, it's worse, not better when you go off is absolutely because of the havoc that they've wreaked in the body.

And now you gotta. Retrain, slowly wean, decrease those hydrochloric acid cells if you are producing too much.

But to your point, **there's this whole group of people that, and it's a larger group than the first one that will feel reflux, that will feel heartburn because they're not making enough acid**.

And I know that sounds so weird on face, but you're gonna have to handle a little bit of chemistry with me to walk through it. And so that chemistry is pH and so normally, You, the pH of the stomach is very acidic. **It's a pH of two**. And remember when pH goes up, that means you're more alkaline.

Well, **the whole rest of your body is a seven**. So let's say you're not making enough hydrochloric acid, so you're a pH of four. Well, Four is not a strong enough signal. So **when we have nice, strong acid, when we have a pH of two, it sends a signal to this little muscle that's right on the bottom of the esophagus called the lower esophageal sphincter, and it tells it to clamp**.

So good healthy acid tells the sphincter to clamp so at the bottom of the esophagus so nothing can go up. **It also tells this other sphincter at the bottom of the stomach to open up, so everything goes down**. So you should be a pH of two, but you're not doing that great making stomach acid. You're a pH of four.

**You don't send a good strong signal that pH of four begins to drift up into the esophagus. That's used to a seven. It's still two acidic for the esophagus. It hurts. You don't send a signal to the bottom of the stomach to open. So everything sits more it ferment. Fermenting creates gas. That creates pressure.**

And so you're sending this what would be weaker stomach acid up, but it's still strong compared to normal tissue. So you burn. **So now you get on something that blocks acid, so now you make even less. So now your sphincter stays open even more. So now things don't break down even more. So more gas, more bloating, more pain, on and on.**

And you think you need these things more and more and then you know, and you're stuck. Yeah. And you're in the wrong direction completely.

MERYL: Absolutely. Wow. That was a great explanation. Thank you. You know, I'm just envisioning that, right? Like the people listening going, oh, that's really what's happening, right?

I mean yeah, we need about four more hours to have you go through the rest of the body to do that, right? But so, so let's lead into that by saying and people are always gonna say, well, what's the, the how do I resolve that? Well, that's the work that we do, right? The work that you, **when you're with a clinician who knows what they're doing, they are systematically going through from the top down, which is why it's so important to really work with a practitioner.**

Who knows this work and not just, it makes me nuts, and I talk about this all the time on pretty much every podcast, like, **you can't just trust an influencer on TikTok or on Instagram or on Facebook who says, use this product to take care of reflux.** Use this, like, it's way more than that, you know?

CHERYL: **I wouldn't trust hearing me on the internet. And what I mean by that is I haven't sat down with the patient yet. There's no way I can treat a billion people all the same.** It's not gonna work. we're, we have a billion listeners right now. Right? Of course. Anyway. But, I mean. We have to sit with people, we have to hear their story.

All of this is individualized. And so sure there can be grains of truth the same as true for researchers. Not even, not even like, **here's this beautiful study and I love it and I'm so excited about it. And there's 80% efficacy rate. Sounds great. Right? Unless you're the 20% then it's meaningless to you.**

**And so until someone sits down with you and hears your history and your story, there's, there's no way you're getting the best care.**

MERYL: Absolutely. Amen to that. All right, so let's take it now from now. All this stuff is not really getting digested in your gut cause it's you're a mess there and now all of a sudden it's trying to go into the whole small intestine piece and Oh wow.

Now everybody's got sibo. I mean, again, everything, so many people are walking around with it and right. We're testing for it. We're tr so let's touch on that because I know so many people are so curious about that. Can you kind of, let's lead into that.

CHERYL: Yeah, absolutely. And in fact, you're adding one more thing I didn't come up with already about why these PPIs are not so good for us because **not only is that stomach acid there to break down foods, it's also there to support the right microbiome, the good healthy flora.**

**And if we talk to our good guys, our bifido bacter and our lactobacillus. They've evolved with us for thousands of years. They're really good at dealing with the, the acidity that should be there,** that pH in fact, that is where they thrive. And so, but if we talk about the bad guys, they don't do so well in that environment.

In fact, **some bugs like h Pylori will even. Try to do things to suppress your hydrochloric acid so they can live longer,** and that just makes sense, right? We, part of this acid is there to protect us from pathogens, from bacteria that was on food, things that were maybe undercooked, et cetera, et cetera. And so if we start to block our stomach acid, we aren't going to kill off bad bugs as well as we should. So now we can get something called sibo, like you mentioned, **small intestinal bacterial overgrowth where the wrong bacteria start to hang out there. They grow more and more. They don't break things down as well. They, they, they literally create gases.** This is how we even do our testing around them.

We have people breathe into a bag and you measure the gas. You measure methane. Yes. The one that comes from cows and the discussion around global warming that can be coming from you as well. And it's. Just as pretty as it sounds. And so but it didn't, right? It didn't feel good. Lots of huge gas producing hurts, pushes, upwards, fermentation.

You're not breaking things down like you should. **And then another part of that is it doesn't even have to be bad guys. So in every little part of your we have, we have a different microbiome. I have different bacteria growing on my elbow than my armpit, than my stomach, than my small intestine than my large intestine.**

So I block stomach acid. I can't break things down. I don't kill the bugs. I should, but the other thing it does is that signaling, I mentioned opening up the sphincter. So things move like they should, and it. Stimulates something called peristalsis. That's the movement of the gut. So if your gut doesn't move, things sit there longer than they should, and they begin to grow things.

Think about that Tupperware that you left under the seat of the car, right? It didn't move like it should. It should have gotten into the dishwasher. That stuff should, but it grows. Same thing happens internally. If we're not moving like we should, things begin to grow more than they should. And so bacteria that would be perfectly fine in the lower part of your gut.

You're not having the movement like you should. It begins to drift up and it gets into the wrong areas and kind of creates more of a traffic jam and, and, and, and can hurt when it gets to the wrong areas of the body as well. So yeah, those things do Yeah. Thank you for reminding me that they do even more harm than I was initially mentioning.

MERYL: Yeah, exactly right. It is that trickle-down effect. Well, look, we see so many people with sibo and so it is, and the resolution of that, I want people to know it, there's, and, and the literature is pointing to it. It is becoming more of an, a chronic issue than even an acute one. Right?

Chronic meaning it, it comes back, it goes away, it comes back. And look, we have great success treating it herbally as opposed to the very expensive medications. **Can you just address the medication versus let's say, an herbal kind of concoction for, for sibo?**

CHERYL: Yeah. **They're gonna be 500 to \$700 a month if you're lucky here.**

**And the data says, And they don't necessarily even work as well. We have trials comparing those medications to botanicals various herbal formulas and showing that the herbal formulas can often be more effective.** So certainly no reason to start with and then we won't get into all this, but if you've got the script filled in Canada, you'd pay much less for it.

But there's really just no reason to drive across the border. The botanicals. **One reason that we see more efficacy from botanicals is they're just not as overused as antibiotics. So we just don't have the same level of resistance to them.**

**The second thing is they tend to work in multiple ways.**

When you're selecting a drug, you want one compound that binds to one thing the strongest, and that's what you're gonna pick. Well, botanicals have many compounds in them, so some might kill the bacteria, but some of those compounds even. Do things like get through their biofilm. **So bacteria put these shields up around them called biofilm that make it harder for the, the antibiotic to get there.**

**Well, botanicals will often do things to help pierce this biofilm.** Botanicals can do things to increase your own immunity. So it's this, this combination epigenetic effect that can often make botanicals a little easier to use. **And they're also more sparing of our good, healthy flora so they don't knock out all your good guys and attempt to restore everything.**

MERYL: Right. Awesome. Yes, and thank you for that. So, so to that end I know You know, everybody seems to be on probiotics every I have this going on. **I'm just gonna take a probiotic.** Right? And everybody's on a different probio, whatever. I mean, probiotics can support health. but it's certainly not, again, obviously you need to sit down with the client.

It's a one-on-one thing, getting to know what their system may or may not need. But probiotics are certainly not gonna cure everybody. Can you just sort of reiterate that as a Scientist.

CHERYL: Yeah. And especially not just and, and especially one's not just kind of randomly pulled off the shelf.

First of all, there are quality issues. **A lot of direct to consumer brands. What you're buying isn't even alive anymore.** So this is an area that it's so important to work with a clinician to make sure you're getting a good clinician line that's. Been tested and verified that it actually has live what are called colony-forming units in there, because many just don't.

Second, they're, **if you're buying the wrong strains, they can even produce histamine rather than reduce histamine.** So they don't follow the premise of first do no harm. And then third, **if you're working with a clinician, they're often doing more things like a comprehensive digestive stool analysis that will actually show you.**

**Which of your strains are high or low? So you're not just picking the wrong thing that makes you even more imbalanced** because even the good guys, if you have an overgrowth of them, they can begin to create harm at some point. So having this information first to know which strains are gonna work better for you, or even to know which strains are more indicated in that pathology.

Makes a world of difference. It's just, **it's a very random shotgun approach that doesn't follow the premise of first do no harm when you just wander down an aisle and grab any probiotic out there.**

**MERYL:** Absolutely.

Thank you. That was, that was a great great clarification on that. So I do wanna be mindful of your time.

So I, I have one other question or sort of comment that we can sort of have a dialogue about, but you know, it still goes back to we have to pay attention to the food we're eating, right? It comes back to we need to eat real food because food has meaning we keep hearing about these different things, these different compounds and foods that we know, speak to our gut, that we've talked about for a long time.

**Short-chain fatty acids and polyphenols, and all of these compounds that you're never gonna get from just a supplement. You've gotta get it from food** to really, I mean, that's how our bodies were designed. **Food is information for all of our cells.** I mean, how, how do you wanna go ahead and like just. Just expand on that.



CHERYL: Yeah, absolutely. So I, **I will use some what we call functional foods that are various protein shakes and whatnot, especially to get people started. But the ultimate goal is to get people to a whole foods diet** that is the one that is least inflammatory for them, because **the gut is the size of a tennis court, and if you are eating something that inflames you all over.**

**All over a tennis court inside your body that will make you hugely sick.** But if you are eating things that nourish your system, this can be so much more profound in terms of making you well, and **there's not a drug out there that does what foods do for us.** When I look to the literature, **I can see that women that eat their five servings of fruits and vegetables a day are 50% less likely to have breast cancer** and, and there's no medication out there that will do that for us.

And, and I haven't even started talking about the little things that whole foods get broken down into. We all know fiber is good for us, but something you mentioned short-chain fatty acids. Fiber gets broken down by good, healthy flora into these short-chain fatty acids, and we absorb them and they affect our brain.

They tell our brain to think better. They're anti-inflammatory in the gut. They might be even as anti-inflammatory as some of the medications that are out there. And so when we're thinking it, So it's not even just nutrients, it's the cell to cell signaling, keeping the immune system imbalance and keeping us from being inflamed and then all of the rest of it from there.

But absolutely and **I know a lot about food, but I still keep a food journal and I know that when I do that, that, that I do better.** And so if we go through my food journal, you're gonna find a lot of chia seeds in there, that high fiber, anti-inflammatory, you're gonna. Find I'm attempting to get a vegetable at every meal throughout the day because the best thing I can do is have a high-quality diet.

And the most specific way to find one for myself is to figure out what my body is reacting to and then work around those limitations. So yes, whole foods absolutely

MERYL: right. And one thing that I do want to just kind of end on this note people are like, especially, oh, well, is it this diet, that diet, it's.

It's, **it's the diet that works for you.** We've gotta get out of putting people into the box. And I find, and the reason I actually mentioned the short-chain fatty acid piece as well, is because **we find most abundant short chain fatty acids in our root vegetables, or let's say in our starchy vegetables and people who are trying to avoid carbs.**

**This is a big problem.** In terms of they're staying away from a whole food group that is really going to nourish them in the best way possible. So we have to not we've gotta get rid of that mentality from the eighties, like, don't eat white potatoes, don't eat this, don't eat that, because it's starchy.

CHERYL: Absolutely. **Anybody who's doing one of those styles of diet, I challenge you and to make sure you are tracking your grams of fiber. And what you're gonna find is you, you are really struggling to get towards that 20, 25 grams of fiber and that's, that has so much health benefit associated with it.**

MERYL: Yeah. Thank you for that. Thank you for this conversation. We could probably do this for a couple of days, talk about all this stuff. But like I said, wanna be mindful of your time and thank you so much for just two great conversations around gut health and allergies. And this has been just amazing. So thank you.

CHERYL: Been my absolute pleasure. Pleasure. Thank you for having me.

MERYL: Of course, of course. All right, everybody, I think you all have gotten some great information. Make sure you reach out to us with any questions, happy to answer them. And You know, if you wanna get on some of that testing and understanding where your intestinal permeability is, or where your sensitivities are, please reach out to us.

We can help you understand you a whole lot better. And with that being said, this is your Rebel Nutritionist signing up. Make it a great day.