



Gut Check: What We Actually Know About the Microbiome with Dr. Anissa Armet, PhD, RD (ep – 95)

[00:00:05] **Dr. Ginger Hultin** The gut microbiome is such a fascinating topic. And with gut health firmly in the spotlight right now, I'm getting more questions about it than ever. My clients really wanna know, how do I improve my gut health? How can I tell if it's healthy? What should I be eating to support it? When those questions come my way, I have to be really honest with them. There is still so much that we don't know. Although the research is pointing towards some genuinely exciting things right now, we're still very much learning, discovering, and evaluating how the gut microbiome operates. This is an exciting phase to be in, and it means I should be talking to someone who can give you a truthful perspective on what we can and cannot say about the gut microbiome in this moment. For that, I'd like to welcome today's guest, Dr. Anissa Armet. She's a dietician, researcher, and a true expert on the gut microbiome. Think of this episode as a check-in. You'll learn where the science actually stands right now and the right strategy for you as you begin to work on your gut microbiome health. Before we get into today's discussion, I want to call out the real challenges that can underpin conversations on gut health. Figuring out how your body functions takes time. You have to discover which foods work, which foods don't, and that requires patience and practice. I really understand how frustrating it can be. My hope is that this conversation points you towards a better path, gives you some concrete ideas and a clearer sense of what the research says matters. I want you to use this to begin your own investigation from a more informed place. To kick things off, I want to begin with Anissa's definition of what the gut microbiome is and which microbes are actually hanging out in our gut. Dr. Armet, welcome. You have spent your career helping people understand the connection between nutrition and gut health. And today we're diving into the gut microbiome. So to start, how would you introduce the concept of microbiome health to someone that is totally new to?

[00:02:36] **Dr. Anissa Armet** Well, first of all, thank you so much, Ginger for having me on the podcast. I'm really excited to be here. Our microbiome is not

only the collection of what microbes are in our gut, but also what they are doing and the functions they provide for us. A healthy microbiome or microbiome health can really come down to what those microbes are doing for us and then what the effect on our overall health is from that. I am used to saying microbiome in the context of our gut because that's what my research is focused on. But there are microbes virtually associated with all aspects of our body that are exposed to the outside world to some degree. Our human body is just as much microbe as it is human. And we've evolved over the course of millennia to really have a symbiotic or mutually beneficial relationship with those microbes, not just in our gut, but really in a lot of different parts of our body. Usually when people refer to the gut microbiome, they are referring to the microbes that are in the large intestine or the colon. But there is a lot of research on how your small intestinal microbiome is related to different things as well. But certainly the most densely populated microbial community, not only in our body, but really in the entire world, is located in our large intestines.

[00:03:58] **Dr. Ginger Hultin** That's so cool. I was working with some researchers at my last job and they likened the human gut microbiome to some of the research that we're doing about space exploration. There's so so so much to explore. Do you see it that vastly?

[00:04:14] **Dr. Anissa Armet** Oh, for sure, yeah. The amount that we don't know is a bit intimidating. And even though we've been doing research now in the microbiome for 20 years or more even, there's still so much we don't know about what a healthy microbiome even is, or what are the certain functions that it needs to provide us with in order to have our best health. And I think a lot of it does boil down to the fact that the gut microbiome is hard to even capture or measure. The way that we do that right now is through stool samples because it's really the easiest way but even then your stool microbiome is probably different to what is actually inside of your large intestine because it really captures, for the most part, the last part of your larger intestine.

[00:05:00] **Dr. Ginger Hultin** So you bring up a really good point that people often talk about the microbiome as healthy or unhealthy. So I wanna unpack that maybe oversimplified language a little bit. What does a quote unquote good microbiome health profile look like and feel like for somebody?

[00:05:19] **Dr. Anissa Armet** So first off, I want to say that there isn't a universally accepted definition of what a healthy microbiome is. And that's probably because each one of us has a unique microbiome. And so a lot of different compositions of microbiomes could be healthy, but they're all maybe performing in a similar way. And that comes back to the function that our microbiome provides us with. Healthy microbiomes are also resilient to

changes. And so, for example, when people go on antibiotics or have some sort of gastrointestinal illness that can really change their microbiome quite quickly, a resilient microbiome will bounce back after that disturbance more quickly. And that kind of restores that healthy balance, I would say. For a person that has an unhealthy microbiome, maybe it's lower in diversity, but again, that's not the only metric that we use. It might be less stable and less resilient to those changes. And so if somebody goes on an antibiotic, maybe it takes their microbiome a really long time to bounce back to their baseline, or maybe it doesn't bounce back at all. And that predisposes them for other illnesses down the road. Typically having a high amount of microbes that can ferment fibers in our gut often then means that we're producing some healthy metabolites. Such as short chain fatty acids that have been associated with some of the health benefits of dietary fiber. And so having a high number of those microbes might also signify that a person has a quote unquote healthy microbiome. But really, I think at the end of the day, what matters is how you are feeling. Having an unhealthy microbiome might manifest itself in some of those symptoms that people might be experiencing already like bloating or abdominal pain that is negatively affecting your quality of life. There's still a lot of research to be done on what is considered a healthy microbiome profile or an unhealthy one and we don't necessarily know for sure if those symptoms that a person might be having are directly related to their microbiome, but it could definitely be a sign of an unstable or unhealthy microbiome.

[00:07:41] **Dr. Ginger Hultin** I work with a lot of folks that have really serious gut health issues, anything from Celiac, Crohn's, Colitis, resections of somebody's colon, SIBO, chronic diarrhea, you can't leave the house, really serious constipation. There's so many things that can happen in the gut. And my understanding is that's not always because of the gut microbiome. I'm sure it's playing a role, but can you talk about the difference between, I have Crohn's and therefore I have this really serious gut-health issue versus my gut microbiome is bad or good or what have you?

[00:08:12] **Dr. Anissa Armet** A lot of that is really this chicken and the egg question. What came first, the disease or the altered microbiome? Yes, the microbiome might change and then a person develops a disease or a person might develop a disease and then because of that inflammation or the medications they're on or the change in their diet, their microbiome then changes. So it's really hard to capture that in research because it's hard to follow people for a long period of time before they get a disease. There is certainly some research to suggest that, especially for gut-related diseases, the microbiome does play a role in that. We don't know how much, but I think it is safe to say that it plays some sort of role there.

[00:08:57] **Dr. Ginger Hultin** This episode is brought to you by Orgain. Sometimes a meal just doesn't happen. The morning gets away from you, lunch turns into a snack at your desk, and suddenly it's mid-afternoon and you haven't eaten anything substantial. In those moments, it's great to have a quick and accessible source of nutrition to lean on. That's where Orgain's organic meal powder can come in. Available in creamy chocolate and vanilla bean, you'll get 20 grams of organic vegan protein, 11 grams of prebiotics and fiber, and only one gram of sugar. It's made with powdered fruits, vegetables, and leafy greens, with no artificial flavors or sweeteners. You can find it at orgain.com. I love the approach Anissa is taking so far. Since everyone's microbes perform a little differently, there's no universal definition of what healthy is. To have your gut feel its best, you really need to focus on fiber. It's come up in our conversation already, and we are about to touch on it even more. If fiber has a number one fan, it's me and Anissa. With that in mind, I wanted to do a deeper dive into the research on this topic. Last year, researchers ran an umbrella review covering fibers impact on 52 different cancer outcomes. And here's what they found. Higher fiber intake was linked to lower cancer risk across three systems of the body, digestive, reproductive, and urinary. On the digestive side, people eating the most fiber had a roughly 26 percent lower risk of colon cancer than people eating the least. For pancreatic cancer, that gap was closer to half. Every additional 10 grams of fiber per day also tracked with a 9 percent drop in overall cancer mortality. It's worth noting that these were observational studies. Researchers tracked what people ate over time, rather than assigning anyone to a specific diet, but the pattern still showed up. This means outside of the microbiome, fiber is clearly doing a lot of amazing work, and I find it a very compelling reason to eat your beans. Let's get back to the episode. Coming up, I pick Anissa's brain on nutritional strategies for the gut microbiome. From there, we get into prebiotics, fermented foods, and whether fiber interferes with nutrient absorption. Stay tuned. Nutritional strategies you and I are both so passionate about it's a huge area of your expertise. So though every person needs personalization and maybe if you're in a IBD flare, you might need to be doing low fiber, but normally we want to do higher fiber. Generally speaking, how do you describe an effective nutritional strategy for healthy gut microbiome?

[00:12:13] **Dr. Anissa Armet** It's tough because in the research setting at least we don't have enough evidence to say that if you do this specific dietary change it will directly change this part of your microbiome which will then lead to this specific health outcome. We have a lot of evidence for different diet strategies that are associated with changes in the microbiome that have been associated then with health outcomes. But I hesitate to say that if you do this, this will change your microbiome and this will lead to that certain health outcome. A very safe thing to say is that a high fiber diet is really key for supporting your

microbiomes the best because our microbes really in our large intestine at least rely on the parts of our diet that are not digested and absorbed in our small intestine and one of the main nutrients that is not digested and absorbed at all in our diet is dietary fiber. And so our microbes really rely on that fiber to support not only their own nutrition needs, their own metabolism, the byproducts of them using those fibers or fermenting those fibers are things like short chain fatty acids that have been associated with a number of different health benefits. And then they're absorbed in the body and can have effects on reducing inflammation, on promoting better insulin sensitivity on our brain, our mood, our mental health. And so I think a high fiber diet coming from whole plant foods like beans, lentils, chickpeas, whole grains, fruits, vegetables, nuts, seeds, all of those good things are really key for feeding our microbiome. And then another component of those same foods are phytochemicals. And these phytochemicals, again, are not absorbed in our small intestine and so they make their way to our large intestine and they have two main roles there. One is that they can be converted by some of our gut microbes into versions of themselves that are more bioactive, which means they have a greater ability to reduce inflammation for example, or have those anti-carcinogenic properties as well. So our microbes are the key there for unlocking some more of those benefits of those phytochemicals. But at the same time, they also act to reduce the growth of potentially harmful bacteria or pathogens in our microbiome. So they have a direct impact on the growth of different microbes. And they might at the same time help these healthier microbes bloom in our gut.

[00:14:50] **Dr. Ginger Hultin** Sometimes I call phytochemicals simplistically like plant antioxidants, brightly colored fruits and veggies. And I think a lot of people even forget beans are white and black and brown. Those are phytochemicals at play, right? And so eating the rainbow, which is such a simplistic yet powerful suggestion, eating more fiber that can really make a difference. We know that there's some research that shows folks the average American perhaps gets eight to 10 grams of fiber a day when really we should be shooting for 25 to 35. I would actually love to hear your take on fiber supplementation.

[00:15:27] **Dr. Anissa Armet** As a dietitian, I am always a food first person, but I think there are certain conditions or circumstances where a supplement can be really beneficial for a person. So for example, there are certain fiber supplements that you really aren't going to get that same fiber from foods in the amount that has been shown to be beneficial. So a good example of this is psyllium husk. It's a very viscous fiber that really you're not going to be having a lot of that same plant food in your diet to get the amount that has been shown to effectively improve bowel movements or reduce cholesterol or improve your blood sugar levels. And so if a person has a certain condition like those that is

experiencing constipation or they have high cholesterol levels, then taking a psyllium husk supplement can be really beneficial for improving those conditions. I think it's really important to first try to optimize a person's diet, because like I said, they're going to be getting so many other things from those foods that you cannot get from supplements alone. It's really key to talk to a dietician or a healthcare professional about what specific fiber supplement that has that evidence base to support its use for a certain health condition.

[00:16:48] **Dr. Ginger Hultin** That's a great point. I often talk to my patients and I'm like, okay, what are we trying to do here? What is your diet like? What kind of supplements and how much are you taking? And a big challenge with fiber supplements is a lot of times if you're just mixing it into water, it creates this really thick, gloopy drink that people don't like. Or if you are taking it in pill form, you're taking 10 to 20 pills. And a lot times I'm, like, can we eat oats? Can we add flax or chia or raspberries or other types of fiber where you're getting the benefit and not taking a ton of pills?

[00:17:22] **Dr. Anissa Armet** Yeah, it does take a lot of intention to truly get up to a high level of 30, 40 grams a day from foods alone, especially for people that are still consuming meat and animal products. It's important to keep in mind for fiber. Here we're talking about adding to the diet and not necessarily taking away. Can you add lentils, for example, to your pasta sauce that has ground meat in it or a good trick that I have is often adding just a cup of cooked canned lentils to your rice. Can you find ways to add these high fiber foods to your diet to really optimize your intake?

[00:18:02] **Dr. Ginger Hultin** I love that, that's how I practice too. Fiber maxing, aiming for 80 grams of fiber a day, worth it or not?

[00:18:10] **Dr. Anissa Armet** There is good research to suggest that if you have the ability to consume more than 40 grams of fiber a day, that is probably going to seriously reduce your risk of developing different chronic diseases. What I do not suggest is going from eating 10 grams of fiber a day to trying to push it to a 50, 60 or more, because that is just going to be a nightmare for your gut, for the symptoms that you're going to experience. And then I think that really deters people from continuing on with trying to have a high fiber intake. So I always recommend starting slow. It can be a long-term goal over weeks or even months to get to that level and that will give your gut time to adapt to that increase in fiber that your microbes are seeing so that it will likely mean you'll experience less gas or bloating over time compared to if you just went from 10 grams to 40 grams in a day.

[00:19:10] **Dr. Ginger Hultin** Me and Anissa say, please do not do that.

[00:19:10] **Dr. Anissa Armet** Please don't. No.

[00:19:12] **Dr. Ginger Hultin** I have just a couple more questions as we wrap up this segment. Fiber and the absorption of nutrients. Is that a problem?

[00:19:20] **Dr. Anissa Armet** For most people, no. So for a person that has vitamin or mineral deficiency or a digestive or absorption issue, condition or disease in high amounts, yes, it could be. But for the general healthy person, no, the benefits of eating those high fiber foods is going to vastly outweigh any sort of small impact it might have on the absorption of other nutrients.

[00:19:45] **Dr. Ginger Hultin** And eating fermented foods, from yogurt, to pickles, to kimchi, and sauerkraut, kombucha. Fermented foods get a lot of praise in this space. Does it hold up?

[00:19:55] **Dr. Anissa Armet** I would say for the most part, they are healthy foods to add. There hasn't been a lot of research on eating a very high amount of different fermented foods. There was one study that was done a few years ago that showed it had a benefit on your microbiome diversity and immune system. But the most research I would say on fermented foods really comes for yogurt. So yogurt is one of the healthiest foods you can have in your diet. So I would say that definitely holds up. For other fermented foods, some of them might be high in salt or added sugar or saturated fat. Those components of those foods might outweigh any of the benefits that those live microbes that are in the fermented foods would give you. It's really important to be mindful of that. But overall, if you enjoy them, they are a good option to include for sure.

[00:20:47] **Dr. Ginger Hultin** I'm a yogurt fan, so I like that validation. What about taking prebiotics, which is basically just a type of fiber, or probiotics? Thoughts on that? I know it's a big subject.

[00:21:00] **Dr. Anissa Armet** Yeah, and I could spend a whole podcast just talking about that. But yeah, for prebiotics, you're right, they are, for the most part, a type of fermentable fiber that is used by certain microbes in the gut that has been associated with a health benefit. But I personally don't think that taking any one prebiotic is going to greatly improve your health compared to what eating a high fiber diet would from whole plant foods, for example. But just like other fiber supplements, there might be certain conditions where a prebiotic can add a certain benefit to it. But in general, I think for right now, from what we know from the research, stick to prioritizing those high fiber whole plant foods. And same for probiotics. Probiotics are these live microbes that when you consume them at a certain dose, they confirm a health benefit. But it's very

specific to the strain of probiotic and the condition or disease that you're trying to treat. So if you just go to the supermarket and get a probiotic and you wanna take it for your diarrhea or just in general, you think it's gonna benefit your health, there's no evidence to suggest that a probiotic is just going to magically help those things. The research is for specific strains. And specific health conditions together that might see a benefit.

[00:22:23] **Dr. Ginger Hultin** It sounds like this would be a really good thing to talk to an expert about. Final question, if somebody comes to you and says, I want to improve my gut microbiome, what's the one thing you tell them? Where do they start?

[00:22:37] **Dr. Anissa Armet** Fiber. Yeah. I think if you're not consuming enough fiber, that is the one place to start to try to optimize that. Anyone that tells you that a carnivore diet, for example, that's devoid of fiber is what's most beneficial for your microbiome, it just straight up isn't. We as humans, our human ancestors, consumed way more fiber than we could probably even imagine right now. And that's where this relationship with our microbiome really develop in relation to how it affects our health. And so we really need to feed our microbes that dietary fiber. And there, I think again, it comes down to trying to have as many of these whole fiber foods as you can.

[00:23:18] **Dr. Ginger Hultin** That's a great point. Ah, I love it. I love it. Anissa, thank you so much for this conversation. I love your passion around fiber. It's been amazing having you and your expertise. I'd also love to hear anything that you're excited about that you are working on right now.

[00:23:32] **Dr. Anissa Armet** Thank you so much for having me, Ginger. I think if people are interested in learning more about this relationship that we have with our microbes and how to feed them properly and what I just said about our human ancestors, what our diets were like then and what they're like in these non-industrialized countries around the world that are still having traditional diets, you can look up NiME diets, which is spelled N-I-M-E. It stands for non-industrialized microbiome restore diet. It's based on some of the research that we've done looking at how eating more like these non-industrialized populations that consume very high-fiber diets that really don't have any processed foods in them, how that can affect our microbiome and our overall health. And we have posts on I think pretty much every social media platform, but we also have a free book available online for a free download. So if you search NiME diet and you go to one of those social media platforms, it should link to it there as well. Thank you so much for having me.

[00:24:35] **Dr. Ginger Hultin** I loved this conversation with Anissa. Any chance I get to sit down with a researcher, I'll take it. Although no one can truly define a healthy gut microbiome at this time, there is still so much that you can do. You know now that a good gut is a resilient one, one you can support through increasing fiber or making sure you're getting a diverse array of foods. You can even start smaller than that. A couple of lentils in your rice totally counts. Thank you for listening to this episode of The Good Clean Nutrition Podcast. If you know someone else who could use this gut check on the microbiome, I always appreciate you sharing the science. Until next time, I'm going to make sure I hit my fiber goal for the day, and I hope you do the same. I'll see you in the next episode.

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