Inside Fecal Transplants: The Gut Reset You Didn’t Expect Transcript

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Introduction to fecal transplant and gut health

Could you reverse some of the aging by just going back with your gut? And so I think we're getting to the point where I thing people are going to be less concerned that it came from feces and more concerned with what are the long-term protective features of making my gut healthier and younger for longer.

If you're overwhelmed with chronic health symptoms and still don't have answers, you are not alone. I'm Dr. Javan and on redefining wellness with Dr Javin, we'll be exploring root causes like Lyme disease, mold and parasites and I'll guide you with simple and practical steps towards real healing.

Well, hello and welcome back to Redefining Wellness podcast. I'm your host, Dr. Jay Behmore, and today we're going to be talking about fecal transplant.

If you don't know what that is, that means somebody's putting poop in you from someone else to help heal. And I've got an expert here. and I am really excited to ask you a lot of poopy questions.

Perfect. So can you tell us a little bit about yourself? Yeah, so my name is Dr. Shana Kal. I'm a neuroscientist by trade, had left academics, and then went into the natural health space.

And so I am our director of operations and medical affairs at NovelBiome. So we're a contract manufacturer of FMT, or fecal microbiota transplantation.

Wait a minute. You're in neurosciences and we are talking about poop. Why? Because the gut-brain connection exists. So we know so much about how the got dictates what the brain can do.

From when you start, when your developing, that ability to connect with the brains until we're aging. The two biggest parts of your gut are at the beginning and at end.

You build your got at beginning when developing and then that got slowly dissolves over time becomes less diverse. There's less composition within what's there, and that's what ties to a lot of all of the symptoms of what we call aging.

That fatigue, that brain fog, all that is because that gut brain is no longer talking. Interesting. Okay. So I grabbed you because we were having a conversation.

We were talking and she was like, first of all, probiotics don't work. And secondly, I have a fecal, which means poop, transplant that is in a oral and a powder form.

So we're going to get into how this can potentially work and I'm going let her defend her reasoning of why we want to put poop in her mouth.

Why probiotics may not be enough

And it's not actually like feces that smells bad and all that, but it still kind of made me stop for a second. Like, wait a minute. So let's just start breaking into this.

First of all. When you're putting in a oral fecal transplant, the goal is to get bacteria in the digestive tract. And we already have a thousand million probiotic companies out there with all sorts of different technologies and prebiotics and postbiotic.

First of all, why don't those do enough that I don' have to put poop in my mouth? Yeah. So the idea here is if you

think about it as a garden. If there's nothing to fertilize, if there is nothing you're rebuilding up from, then adding as much fertilizer as you want to that soil isn't going to grow a seed that's not there.

So that is the difference. Probiotics are great bridgers, or we call them travelers. They're not going stay in your gut, they do work while they're there and then they leave.

And if they are nothing too support in the gut then it's, not gonna do anything. Deep, I know what you're saying, but I think we need to pull a little bit more information out of there, which is you saying there's nothing there.

So. First of all, we all have microbiomes. We all. Billions of bacteria in our gut. Last time I was on a podcast that was about this, uh, the. Speaker said that there were more than 40,000 named bacteria and there's lots of each one in the guts.

We've named 40 thousand different strains. So you're saying if somebody's got a lot of those wiped out, that probiotics are not going to replenish that.

They may support what you already have, but they're not replenishing it. Yeah. So they don't stay. We call it engrafting. Probiotics don´t become part of your gut microbiome.

Even if they are the same name, they´re the Same bug, bacteria, They're still not same? But they aren't the the because the difference with FMT is it's human derived.

It's supposed to live there. Probiotics are derived from cell culture or built up in yogurts and all of these kind of things. But, there are not meant to Live in the human gut.

Why is that different?

How FMT is sourced and manufactured

Because they don't fit like a puzzle so it would be like taking Taking some blood from a different animal and putting in a human and being shocked that it didn't work properly Because it's not supposed to be in that system So it can't survive where human derived becomes it graphs its seeds it stays there because it that's where its home already is so the fecal transplant that you're doing are you literally going and getting poop and then taking it and drying it up and getting the bacteria out of it, or are we taking bacteria from human bodies and then growing it?

What's happening? Yeah, so we actually have a donor program. So we're finding healthy stool donors that are between 10 and 30. We're looking at their health history, their family health, history how they were born, if they are breastfed, what do they eat.

And about 1% of people who think they're healthy enough actually are healthy to be a stool donor. And then we're actually processing that. There's a lot of purification steps, but it's all derived from human stool.

We're just pulling out the metabolites, the bacteria, and all of the other microbiota. Everyone loves the bacterium in the gut. That's not all that's there.

And so that part of this is that we're capturing exactly the instructions of how to have a healthy gut and giving those instructions to someone's gut that isn't able to do that because they're missing pages.

So 1% of donors, 1 percent of people that already think they are healthy enough are good enough to give you the poop. Yeah, so let's start here. If you're not vaginally born, you can't be a donor.

I can't be a donor because I've had half of those things in my family and I was a C-section because that was fat baby. Yeah. And so that's part of this is we're trying to find people that have all of the boxes that has all the things someone else who can do this on their own have.

So these are really selective people. We cut it off at 30 because the gut starts to deteriorate as you get older. so we don't want to put that into a system that is already functional.

You can only be 30. We're under, yeah. And under. You've got to fit all the boxes. My goodness. Yeah, including like no vaccines in the last 12 months because you don't want any of that to be in in your gut.

They can't have more than had antibiotics more that five times. We look for unicorns. Tell me about it. Your company's dating life is rough. Why is it that you need to have all of these things?

Because my understanding is that on a lot of the studies that they're doing right now, they are finding out that people are missing whole strains of bacteria.

And what they find is as this research has gone on and on, and we're naming all these bacteria that There's a specific bacteria and I'm making this up, but it's named something like lactobacillus with a bunch of numbers behind it and its job is to protect you from this parasite.

And then there's another one that's supposed to help you burn fat. There is another that helps with your mental health for depression. We're just missing a lot of these today.

So now probiotics won't, as you're saying, aren't going to replenish it. So we're hoping that you are going find the unicorn that has that bacteria to put it back in my gut because I wasn't vaginally born.

Well, here's the thing, we're not looking for one type of bacteria. We're looking at all of them. So it's a whole ecosystem that we are putting back in.

And that ecosystem grows and changes and responds. It's not that one bacteria protects against depression. Its ability to make the pieces to be a neurotransmitter or to send the signal up to the brain to tell it, hey, you need more dopamine.

And so it's not one bacteria that's doing any singular job. In science, we love that. We love to get down to be like, this guy did that, these bacteria do that they're all working together.

So if you said, I want to protect against suppression, and I'm just gonna load this system with only that bacteria, that person isn't gonna magically never get the pressure, never be sick.

so we want it to describe the importance of each one. But as a whole, for the, We know that it is everything working, together that is makes it able, how your ability to use fiber.

Gut diversity, diet, and aging

There's certain bacteria that exist that make you able to denature that fiber, open it up, and then use all the pieces. Some of them just work on making vitamins or making you be able actually utilize the vitamins.

But each one individually does nothing. They have to work together. And that's why you have take the whole instruction manual from a person and put it in so that they have the instructions to do all of those jobs.

Your gut, 70% of your immune system is coming from your gut. Inflammation is regulated through your gut. Your gut plays a role in the heart health. It plays the role of the health of your liver.

And so as we see, as a whole, the gut getting worse over time, for the human species, we're seeing diseases that we've never seen in kids seen now. because that system isn't working properly and now the liver isn' functioning properly.

We're seeing heightened amounts of neurodevelopmental diseases because the gut's not developing properly, so now you have neurological conditions because gut and the brain aren't talking.

And so it plays a huge role, but it's so many key pieces to how we function. But each individual in one, each bacteria is not important, it is all of them together.

Similarly to diet, like if you only eat protein ever, you're gonna miss parts of your guts. Those bacteria are gonna die off. The idea is diversity is key, both in what's in your gut and also how you feed your guy.

So you were saying the carnivore diet is destroying guts? Yeah. There's gonna be some people really mad at you. But you can't because we're never meant to just eat one thing, right?

You have to eat across the species. You can cut out fiber. Fiber is one of the most important things we do because it's one other things that makes neurotransmitters.

It helps make the vitamins. If anyone eats one anything, that's not gonna allow your gut to stay healthy. So we can make some other people mad too. Vegans aren't doing it right either.

Well, if you're a healthy vegan and you are eating across, you eating lots of different grains, or living lots different fruits, your replacing, that you using plant-based proteins and your eating a lot of nuts and things like that, then you have to eat across it.

But the key is diversity. When we talk about diet, we don't talk with any diet being better than another, it's how diverse is your diet. Our goal is like, how many kinds of foods can you eat?

I mean, highly processed food and high sugar food, nobody wants to that. and that can dictate your cravings, but the idea here is that you want to eat diversely so that your feeding a diverse gut.

If you keep pitting down your diet and getting less diverse, your gut will automatically get less divers because you feed the bacteria to survive. You don't feed them, they die.

So what keeps going to my brain is I like data. I liked numbers. Are there studies out there that have shown a reduction by a percentage or a theoretical percentage of diversity of microbiome from a thousand years ago to today?

Is there anything like that that's going on or from. A tribe in Papua New Guinea to where we are today, is there a amount of reduction that we're seeing?

Yeah, so some of the really interesting ones is people that move from a completely different culture and then they move to a new one. It takes about six months for their gut to shift to look like someone who's been living there forever.

So if you start integrating and start eating like everybody else, your gut will shift and look just like everyone else's in the new country or space that you're living in.

We do know there are tribes and then people study this. They say, well, they must have the healthiest guts. And we always say if you took that gut and made them a donor and gave it to somebody today in like North America, the likelihood that they would get very ill is very high because they're not exposed to the things that somebody that's living in a tribe is.

So it's a lot of that. It has to be a match. they have to in similar environments. but we want to protect against pathogens, right? So like you live in a tribe and you're not eating the same kinds of foods, you are not cooking the foods the way, the likelihood that you have parasites that won't affect you but would knock somebody out here is really likely.

So that's part of the screening process for donors is making sure people are carriers for stuff all the time, they never know they have it. But if you gave that to somebody else, especially if they're ill, the likelihood that they would have a reaction to it is high, so screening is key.

We also talk about rewilding the gut. So getting out, touching dirt is a big, there's a lot of studies going on there now is like, can we help get people to have healthier gut by getting them exposed to different environments and the dirt and germs again, and seeing how that works.

Is it touching or is it eating dirt? If you touch it, you're eating it. You're going to touch your mouth at some point. Yeah, but being exposed and being around these things are key.

We went away from sterilizing everything and then something magical happened and now everybody's big on sterilising everything again and we had understood that you can't avoid germs.

Avoiding them all is not the point, it's building the immune system and having the ability to respond to that. And that's part of the importance of a gut as well, is you have to have all the pieces there so you can build an immune response.

You just said it, the oversterilization of everything. And it always makes me laugh because I grew up in a family where my mom would clean you smell bleach all over the house.

And she's like, Oh, that's the clean, you know, You smell the toilet cleaner. You smelled the bleach. She smelled a Windex. So I grew up thinking that what's good.

We're all clean safe smelled. Like my mom said, cleanliness is next to godliness. Yeah. As a boy, I was like. Uh huh. Um, and I could, the looks that I can probably still give you when she says things like that to me.

Now all the evidence finally comes out like, no mom, that is not true.

Rewilding the gut and environmental exposure

But I've learned those smells that when they get to your nose and you can smell bleach in a warehouse like OSHA actually can be considered a problem because it's dangerous and can cause damage to lungs.

Yeah. It's also causing damage our digestive tracts because you're inhaling antibacterial things down to you gut. You're eating food with glyphosate and all this other junk on it.

Is it even possible to live in a westernized country today and have a functioning gut? Yes. But I think we have to decide, like, you have you, have, to be conscious.

You have the think about what you're putting in your body. And I, think the biggest thing is it's not always, and we say like everybody ate organic and everybody, grew all of their own food.

Maybe that would speed up the process of healing everybody's gut, but a lot of it is just like avoiding processed foods and eating more whole foods. Does the quality of those things?

Yes, that matters. But at the end of the day, if you can eat more, whole food and less processed food, you're off to a better start. Diet impacts your gut more than your genetics.

So in 24 to 48 hours after changing your diet, your got will start to shift. both positively and negatively, right? Like if you shift from eating a healthy diet to, you know, a really processed diet, your gut's gonna shift.

But you have the ability to do this. The thing is, is all of these changes you can make, exercising, better sleep, reducing your stress, eating better, those are all great things, but there's always gonna be, people that have had tons of exposure to antibiotics, They probably are missing these keystone species that we talked about.

They're just like missing the really important ones and those are really hard to get back. So you kind of do, there are cases where you just have to start again.

A question that just popped into my mind and you're talking about whole foods versus processed foods, versus organic and not organic. What is the effect of microwaves on our food and our microbiome?

I don't think anybody's ever asked that question, to be honest. We're so, this is such a huge field. It's so young. So even the importance of organic versus not organic, no one's really done a study of what the important is, but we're at the point where we know whole real foods are better than processed foods.

And so that's, you have to think about the process of understanding something so complex. So we have to look at, okay, so we know diet's important. What does that even mean?

What is a good diet? what's the best diet. And so, we're still learning that, but we do know that if you, you know, restrictive, long-term restrictive diets, things will die off because they just weren't said.

So that's where these early stages of trying to figure out what is best. And it may come down to, it's not about best, It's about what's accessible and what are the best strategies of what the worst versus what better than worse.

And I think we keep building from there. All right. So we've talked a lot about the microbiome. We've gone down the rabbit hole of why we talked about probiotics versus fecal transplant, how they're working.

I want to get back to this whole topic of we're putting this in our mouth. Yeah. This is human feces that is going in the mouth.

Making FMT practical and palatable

And you're trying to tell me that it's worthwhile to do this. Yes. One of the reasons that we manufacture instead of treat patients anymore is because we figured out how do we take something that has a smell that people aren't going to want to eat and make it to a white powder that no scent, they can mix with water.

And so that's where this cool science comes in of how do you purify it? What's the weights of these bacteria? what are the weight of the metabolites? How do we spin that out so we're only taking one at each step so by the end product, you're getting something that looks and smells just like your probiotic would.

Man, this is going to take a lot of convincing for me to put poop in my mouth. But that's probably because you don't really need it, right? So we're talking to the patients that, like, that is not their concern because they've seen and done everything, and they know they're not responding.

And I think the more of those people that do this, we are going to see people who go, I know when I hit 45, when hit 55, 65, my gut is just getting worse.

could I take a younger gut and just give it a boost? Can I make it little bit better? And there's animal studies that do this and we're starting to see the beginning of the human studies where could you reverse some of aging by just going back with your gut.

And so I think we are getting to the point where I thing people are going to be less concerned that it came from feces and more concerned with what are the long term protective features of making my gut healthier and younger for longer.

Well, I was going to follow up with that is there is a huge population of people drinking their own pee now. I did not know that. Huge population. Though it is somewhat sterile because there's two systems that process out urine before it…

Well, they're talking about those bioregulatory hormones in there, there are stem cells in their. So there is definitely a population that it's not beyond health individuals to biohack with their own bodily fluids.

There's a guy out there right now putting his son's blood into him to try and go against age. I'm not saying I am

backing all of these things, I just saying there's people doing it.

And with fecal transplant, what I've seen is I have seen some pretty cool things with kids that are autistic, that have PANS, giving them function back because of the microbiome they've lost.

I kind of make it fun and lighthearted because it is hard for a lot of people to think about a fecally transplant or the first time I heard about it, like, excuse me, you want me to take a pill of poop?

And yeah, for very chronically ill people, their desperation, they're willing to do more things. But I looked at what you had and it's not the visual that everyone's thinking it is right now.

It's a powder that looks no different than your probiotic powder. There was no scent to it because I had to smell it and I should have grabbed a pill to bring a show.

And it looks completely innocuous and normal. So the fear part, the weirdness part it's not weird. And I feel like if you were looking at this in 2017, to now, it's a completely different product.

We figured out what are the things we need to take from it. we're not into as close to a raw product or raw stool anymore than we were. But that's part of this.

This field is growing. Capsules didn't exist till 2019. They just, no one knew how to do it and the capsules at 2019 to today look completely as well.

Even being able to freeze dry is the common word for it, but getting all the bacteria into stasis so it can last longer. It doesn't have to be frozen.

you know, minus 80 degrees Celsius. Now, it's the standard fridge temperature or room temperature. So, like, we keep making the product better so it is more accessible and it answers more questions.

I mean, were seeing this in Parkinson's and Alzheimer's disease as well as IBS and SIBO and an alter of colitis. And I think, you now, the gut plays a role everywhere and we're just figuring out how do we target it the best.

So let's go back to delivery a little bit. And one of the things that you said to me that was interesting, because this is what we do with a lot of kids we work with, which is if you give a probiotic in a pill that's enterically coded, they can get through the digestive tract, I get how that works.

But if I'm giving it to a kid that can't take it in the pill, you're like, You might have to take something to block acid to be able to get it go in, which immediately told me, okay, this person has some knowledge that actually like efficacious of how something should work, because you have stop the acid, to make it work.

Applications, scalability, and where to learn more

I was like all right, we can have a further conversation because a lot of times I run into companies that whoever's at the booth, doesn't always get it.

Yeah. Doesn't understand the problem. So you've thought through the actual application of how to get into a digestive tract. What are some of the hangups for being effective for people?

I think it could be effective for everybody, to be honest. I mean, anybody could have a gut reset and probably come out doing better than when they started.

And I don't think there's very many people that would say, like, I've never had a got issue. You know, especially as you age, you're like I didn't eat and then get heartburn.

Part of that is like gastric acid changes and miscommunication between your oral microbiome and your gut

microbiomes. It's a whole thing. But part of this is There are people who are going to respond to traditional treatments.

There were people are gonna get better by taking your probiotic and being effective with their diet. And then there's a subpopulation of people that just don't respond.

Every doctor can think of a patient they had that go, this treatment made sense and they just didn't response. The best example I can give you is an oncology, ICIs or immunotherapies.

There is a subset of patients that just don't respond. They are non-responders. And in a treatment that only 20% of people respond to, but it's such a great treatment when it works, why aren't they responding?

And resetting the gut causes these people to shift into being responders. So here's this thing, it's synergy, people who don't respond to stem cells. If their gut is healthy, they're able to use the stem cell more effectively.

So part of this is that your gut has such a big dictator, so many systems, that if that doesn't work, the may not be able process the medications or process their diet effectively, So by restoring that, then they can all of a sudden utilize all these drugs and treatments better.

As a doc, but I also in a clinic, and I've just got a question. How is this scalable? If you have so few of people that you can get poop from, how do you grow this if everybody starts doing this as a twice a year reset?

Yeah, so part of that is we're really effective at keeping our donors and finding new donors. We know where they live. we know what kind of sports they're into.

So we now where to find them. And we've perfected that part. We know, we're unicorn hunters, it's fine. I get on the uniform, I go find other uniforms, its fine, but we know how to do that part.

That's why we manufacture now, because we've perfected where to find the donors, how does screen them, to keep them healthy, and how do we make consistent products.

We don't want doctors to have to do that. Doctors for a long period of time are making their own FMT. It's hard to find a good donor. We know where they live.

A, we're in Canada and we are in like a valley where there's like people growing their food, doing their thing. Like we live in the unicorn land. So we know how to fine them, but we've perfected that part.

That's why we stopped treating people and started manufacturing because that's the hard part, making the product, finding the people. and learning to scale it.

Now it's how do we educate people, how we get people to understand that this is out there, accessible, that they can ask these questions and figure out how to implement this better.

That's what we do now. Amazing. Yeah. Well, I think this has been really interesting, a fecal transplant conversation that I feel like Some people are really going to be interested in.

Yeah. So how do people find out more about what you're doing? Yeah, so you can find us at NovelBiome.com. We have blogs, we're on the social media, and most of our social medias geared towards just education around gut health.

And we do have our own podcast, which is myself and our founder, who's an antropath, where we just talk about the gut and invite other people who want to talk to about gut as well.

It's just biome breakthroughs and we were just trying to figure out getting education out of people's hands so that everybody's wondering what the importance of the health is because it's everywhere right now.

And we're just trying to simplify some of these crazy, really cool studies that are overwhelming if you jump in kind of in the middle. Well, I just want to thank you for all your information today.

I'm excited to maybe try this out with a few people. Yeah, please. Thank you. Thank you for tuning in to redefining wellness with Dr. Javin. If this episode spoke to you, please follow and share this podcast with someone who is ready to take control of their chronic health symptoms.

Also please consider leaving a review. It helps more people find the show. See you here again.