Your Gut Is Making You Anxious (And You Don't Even Know It) Transcript

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Introduction to the Gut-Brain Connection

Let me give you a clinical scenario. Someone comes into my office, they have anxiety, brain fog, low mood. They've tried therapy, maybe have tried tons of medications, and they say, hmm, something is still off.

Now here's the question most people don't ask. What if part of that picture isn't actually starting in the brain at all, but it's coming from the gut?

Because over the past few years, we've gone from this being a bit of a fringe idea to something that's showing up consistently in real data. And today, I want to walk you through what's actually true, what's overhyped and what you can do realistically about it.

I'm Dr. Arwen Podesta, I am a functional psychiatrist. On this channel we break down mental health, neuroscience and integrative strategies in a way that's practical and evidence-based, whether you're a clinician trying to help your patients or you are trying feel better and figure it out for yourself.

So if you've ever felt like your mental health is more than just in your head, you're exactly right. And in this video, I'm going to explain why.

What the Gut-Brain Axis Is

So what is the gut-brain axis? Let's start off simply breaking it down. The gut brain axis is a two-way communication system between your brain, your gut, and your microbiome, which are the trillions of organisms living inside your intestines.

and it's constantly active. Your brain affects your gut. Stress leads to nausea. IBS flares happen before a big event. But also, your guts affects you brain.

Mood, anxiety, energy, even how clearly you think. Heavily affected by your good. And it does this through multiple systems all at once. It's really quite complicated.

We've got nerves, immune signaling, hormones, and microbial chemicals. So when people say, trust your gut, there's actually true, real biology behind that.

So I'm going to try to make this practical. We're going talk about four main pathways. Number one is the vagus nerve, which is a direct line from your got to brain and your brain to gut.

It's like the highway, a nerve that's a highway sending messages up and down about inflammation, about microbial activity, even stress signals. And here's what's fascinating.

In some studies, when this pathway is disrupted and there are probiotics in the system that have been helping mood, the probiotic will stop working for mood.

Four Main Communication Pathways

Probiotics work by releasing neurotransmitters like GABA and serotonin and stimulating certain cells in gut, which then communicate with the brain via the vagus nerve.

Reduce vagus activity which would be called vagal tone, which if we're measuring it, it's measured by low heart rate variability. That's associated with increased gut permeability and inflammation which can block the beneficial signals from probiotics from reaching the brain.

This, so important. It's a real and really important communication channel. Studies in animals have shown that when that vagus nerve is surgically cut, probiotics that were working, such as lactobacillus, no longer alleviate depression or anxiety, demonstrating that this nerve necessary for their mood-modifying effects.

Okay, second part, inflammation. This is where I see it the most relevant in clinical practice. If the gut microbiome becomes imbalanced, what we call dysbiosis, it can increase intestinal permeability.

Sometimes in the past it's been called leaky gut. That's a bit outdated. But this intestinal permeability allows inflammatory signals to enter the circulation.

Now connect that to psychiatry. Inflammation is strongly linked to depression, to fatigue, brain fog, low motivation. So sometimes what looks like treatment-resistant depression may actually have an inflammatory driver coming from the gut.

Of note, this is highly linked to immune function. As you can imagine, if the intestine is more permeable, other microbes and toxins are more prone to getting into the body.

The third part is the microbial chemicals. This is where food comes in. Your gut bacteria are chemically active. When they break down food, especially fiber, They produce compounds like short-chain fatty acids, especially butyrate.

And these short chain fatty-acids actually reduce inflammation, support gut lining, influence brain signaling. They also affect neurotransmitter systems, GABA, serotonin precursors, dopamine pathways, There's an important nuance that your gut doesn't just make serotonin and send it to the brain.

Research on Fermented Foods and Anxiety

It's a little more indirect, but the influence is real. All right, the fourth part is the stress feedback loop. And that goes both ways too. Chronic stress disrupts the microbiome, increases gut permeability, worsens inflammation.

Then that feeds back into mood and anxiety. So you get this loop, stress, gut disruption, inflammation, worse mental health, more stress. And then that loop is where a lot of people get stuck, and those are the folks that I presented at the beginning.

And so the research actually shows that this is grounded in data, not just hypothetical. Look, fermented foods and social anxiety. There's a really interesting study of about 700 young adults looking at fermented food intake, like yogurt, kimchi, kefir.

And they found that people who ate more fermented foods had lower social anxiety symptoms. But the key nuance is the effect was strongest in people with higher what they call neuroticisms, people more prone to more anxiety already.

So in other words, the gut intervention mattered most in the people that were already at higher risk. And this is what I see and my colleagues see clinically.

Probiotics vs Prebiotics

All right, let's talk about probiotics versus prebiotics. This really matters. Most people jump straight into probiotics, which are supplements. Some of them are over-the-counter and some of the more prescription.

But let's separate these out. So probiotic are live bacteria, whereas prebiotics are foods that feed your existing bacteria. Mainly fiber, resistant starches, certain plant compounds.

And here's the key insight. some studies show that pre-biotic alone, like specific fibers, can actually reduce anxiety scores by feeding beneficial bacteria that are already in the gut.

about adding bacteria all the time. It's about creating an environment where the right, good, healthy bacteria can thrive. So what do we actually see overall in clinical reality?

Well, people with depression and anxiety often have a different microbiome pattern. Sometimes we might do gut mapping for this. Interventions can improve symptoms, but really the effects vary widely.

This is not a magic bullet. it is a meaningful piece of the puzzle though. and the knowledge is power. What you can do, let's make this actionable and realistic.

All right. Start with a probiotic. This is underrated.

Practical Steps to Support Gut Health

If you're doing nothing else, start by increasing fiber diversity, increasing vegetables, legumes, and resistant starches, because you are going to feed that microbiome that you already have.

And this is often more impactful than just adding a probiotic. So add things like yogurt, kefir, sauerkraut, kimchi, other fermented foods strategically.

Not a huge amount, just consistent exposure. And remember, in that one study, it wasn't perfection. It was about frequency and regularity. Use probiotics thoughtfully.

Probiotics can help, but they're strain-specific, the effects are modest, and not all are equal. This is not a grab-and-go, anything off the shelf. Make sure, if you're buying supplements, that they are third-party tested, Now, more importantly, don't ignore stress.

If stress is high, the gut's going to struggle no matter what you eat. So this has to include regulating the nervous system, getting good and resilient sleep, and getting therapy when needed and doing therapeutic activities, being out in nature, doing breath work, exercising, because you can't out supplement chronic stress All right, so what's the takeaway?

Well, mental health, it's not just brain chemistry.

Key Takeaway and Closing Advice

It's actually immune function, metabolism, gut health. And for a lot of people, especially those who feel like they're doing everything right but it still not quite there, this might be one of the missing pieces.

If this was helpful, please share it with someone who might have been struggling or someone in healthcare who's ready to think a little more broadly.