

Butyrate and Leaky Gut Syndrome

Steve Wright:

I think everybody at this point's heard leaky gut, they've heard tight junctions. They're the rubber bands that keep your one cell layer thick gut together basically. Butyrate has been shown in research to improve tight junction function and expression. So it basically helps repair that part.

But what we've learned about leaky gut in the last 10 years has been a lot and leaky gut's not just a tight junction issue. It's actually at least a four... The most recent paper I saw is they're labeling it a four layer issue. So layer one at the cell layer is the tight junction, loss of those. Layer two is your mucus lining. If you lose the density and the thickness of the mucus lining, then you're exposing all these toxic compounds and undigested food particles to that really, really delicate skin layer. So you got to have a thick mucus layer. On top of that, the microbiome and all the bugs like to basically stick to and be in that mucus layer. So good microbiome diversity also helps protect against leaky gut. And then, also, there's all these new compounds and peptides that are defense in molecules. So, alpha defenses, beta defenses, most people have heard of secretory IGA. There's also one called IAP. And these are all these weird, cool peptides that your gut cells basically release to go neutralize bad stuff in our gut. And so, the best part about Tributyrin is that it's been shown in all different studies to basically upregulate all those things. It upregulates MUC2 gene, and mucus production. So, healing those mucus pathways. It increases microbiome diversity, and then it upregulates peptide defensins in the gut.