

Leaky Gut Syndrome: What is Leaky Gut?

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And so here is a problem that we end up in modern society. The language used by the microbiome to communicate with immune system early on, when it first detects the presence of an infectious agent are all these types of cytokines. Interferons and cytokines, interleukins, interferons and so on. All of these messengers are inflammatory messengers. And the way your body's supposed to work when it's healthy is you're supposed to have low levels of inflammation throughout your body. And so that if all of a sudden there's an inflammation flare in some part of your body, it quickly attracts your immune system to that side of action. That's the signal that the local microbes use to recruit your immune cells to that site of action. These are the examples of the interferons and interleukins that are the inflammatory cytokines that the microbiome uses to recruit your immune cells.

The problem is in places like North America, in the Western world, at least 50% of adults have high levels of chronic illness and all of the chronic illnesses that we have, like diabetes, autoimmune disease, arthritis, cardiovascular disease and so on, are all hallmarked by having chronic inflammation, which means all of these signals are chronically elevated in these individuals. Here are individuals with predispositions like obesity, diabetes, hypertension, cardiovascular disease, renal disease, autoimmune conditions, pancreatitis, IBD, all of these conditions are hallmarked by having elevated chronic levels of all of these inflammatory markers. That creates a significant problem for how your immune system is supposed to respond.

That creates a significant issue of something called loss signaling, which I'll talk about in a second. But the biggest driver of chronic inflammation in chronic illness in the Western world is leaky gut. The moment your gut becomes leaky, you got this translocation of LPS, lipopolysaccharide into circulation and when you get the translocation of this endotoxin that's made by bacteria in your gut, when you get that translocation into circulation, it turns on all of those very same inflammatory markers systemically. It does it in local tissue but it also does it systemically and disruption so the gut microbiome can drive this kind of chronic inflammation.