

How Fixing Your Gut Fixes Your Brain

Deep breath. We're about to have a complex chat.

You'll Make Happy Chemicals

Some types of gut bugs manufacture a neurochemical called GABA, which our brains produce, too (it relaxes us). Other bacteria are crucial for the assembly-line production in the colon of two more key neurochemicals, dopamine and serotonin. (Dopamine has a generally stimulating effect; serotonin is calming.) When they're produced in the brain, these chemicals help regulate mood and behavior. How the gut-made versions affect what's going on in your head is an unresolved question, but some research suggests that they send messages up the chain by pinging the vagus nerve, a major highway that carries electrochemical messages to and from the brain and gut.

You'll Dial Down Stress Hormones

This is probably because the neurochemicals that good bacteria help make (above) are involved in the production of stress hormones: Alter the neurochemicals, alter the stress hormones.

You'll Stop Inflammation

When we're babies, our microbiomes "tune" our immune systems (about 70% of which reside in our digestive tracts) to respond to incoming threats. If the bugs aren't numerous or diverse enough in those first months or, possibly, if they've diminished in adulthood as the result of a poor diet, the gut immune system becomes prone to food sensitivities and allergies. Then, in response to those foods, immune cells called cytokines are released into the body through the bloodstream, creating inflammatory havoc and resulting in symptoms like fatigue, "brain fog," and even depression and anxiety.