

The Microbiome & Mental Wellness: Exploring the Gut-Brain Connection

By Jay Bartel

"[Psychobiotics](#)" is an emerging field of health science, with research suggesting that intestinal microbes play a significant role in mood, and that "[gut-brain connection](#)" may be [crucial for addressing issues such as depression and anxiety](#). Research suggests that [gut bacteria are in constant communication with the brain](#), and the health of the intestinal flora can greatly impact mood, behavior, and mental health. In the next decade, we may see more and more [psychological therapeutic interventions](#) aimed at shifting the intestinal terrain. Further, the microbiome has also been linked to immune system wellness, digestive health, and overall inflammatory load. They also play a role in helping the body [metabolize key vitamins and minerals](#). Gut health can be detrimentally affected in a variety of ways. A common nutritional scenario which can lead to gut imbalance includes a diet low in fermented foods and [fiber](#) while [high in processed fat and refined carbohydrates](#). Long-term use of [many pharmaceuticals](#) (i.e. antibiotics and non-steroidal anti-inflammatories) can impact the microbiome, too. With that in mind, here's a brief primer on the microbiome and a few ideas of how to keep yours thriving in the new year.

Microbiome in a Nutshell

Our gut flora make up our microbiome. These live bacteria and yeasts feed on foods we eat, and it is important to keep them diverse and thriving. To support the microbiome, it is important to consume fermented or cultured foods often, and supplement if possible. Fermented, probiotic, and cultured foods all contain the same thing for supporting gut health -- beneficial bacteria.

Probiotic Foods

Food sources of [probiotics](#) include fermented vegetables, yogurt, fermented soy products, sourdough bread, aged cheese, pickles, salami, miso, kefir, kombucha, and on and on. Supplements vary considerably in their quality and price. Typically the most effective strains need to be refrigerated. Supplementation may not be accessible for a variety of reasons, which is why I recommend trying to consume beneficial bacteria primarily through food sources.

Author and prolific fermentation wizard, [Sandor Katz](#), is a great resource for fermentation recipes and inspiration. As he points out,

By eating a variety of live fermented foods, you promote diversity among microbial cultures in your body. Biodiversity, increasingly recognized as critical to the survival of larger-scale ecosystems, is just as important at the micro level. Call it microbiodiversity. Your body is an ecosystem that can function most effectively when populated by diverse

Jay Bartel

Clinical Herbalist & Holistic Health Educator

July 2020

species of microorganisms. By fermenting foods and drinks with wild microorganisms present in your home environment, you become more interconnected with the life forces of the world around you. Your environment becomes you, as you invite the microbial populations you share the earth with to enter your diet and your intestinal ecology.

Indeed, our bodies are innately resistant to uniformity and homogenization. Including a rich variety of foods *and their beneficial bacterial constituents* is one way to support gut health and the other bodily systems — including the nervous system— which depend on it.

Prebiotic Foods

It is important, too, to feed those beneficial bacteria the kinds of foods that will help them thrive. Here's where prebiotic foods come in. Prebiotics are simply foods which contain inulin and other non- digestible carbohydrates that feed the beneficial bacteria in the gut. There's a heavy amount of emerging research on the benefits of prebiotics, too. A 2012 study found a link between a diet high in prebiotics and a reduced risk of developing [colorectal cancer](#). Other research has suggested that prebiotics increase [calcium absorption](#) and may improve [bone density](#), as well. So how to add more prebiotic foods to your diet? Here's a list of some of my favorite prebiotic foods:

- Bananas
- Asparagus
- Leeks
- Artichokes
- Apples
- Cabbage
- Onions

And many more!

For further reading about the microbiome and its role in supporting mental well- being, check out the following resources:

- [The Mind-Body Connection: How The Hidden Conversation Within Our Bodies Impacts Our Mood, Our Choices, and Our Overall Health](#) by Emeran Mayer
- [Gut, Microbiome, and Brain Regulatory Axis: Relevance to Neurodegenerative and Psychiatric Disorders](#) by G.B Stefano et. al