



"A Different Kind of Pharmacy"

Monday - Friday: 10am - 6:00pm
Saturday: 10am - 2:00pm
Sunday: Closed

How Probiotics Can Support Mental Health

VOL 3 ISSUE 1

1st Quarter 2023

While the interconnectedness of the gut and the brain has been considered as early as the 18th century, recent research has given us new insight on how the gut can influence our minds and mental health. This new research into the gut-brain-axis (GBA) shows us that the GBA is how the enteric nervous system (ENS) and the central nervous system (CNS) communicate. Other systems are also involved in this process, but interestingly it has been shown that the gut microbiota plays a role in this process by interacting with the ENS and the intestinal cells.

The 'gut microbiota' refers to the typical bacteria and fungi that live in our GI systems. Some are capable of producing important neurotransmitters such as serotonin and GABA, which play a vital role in many processes that occur in the brain. Decreased GABA and serotonin levels have been linked to many mood disorders. The microbiota help to mitigate these disorders by regulating neurotransmitters that are associated with stress, sleep, and mood. Research has revealed that depression can be related to increasing severity of gut dysfunction.

One study showed that patients with major depressive disorders taking *Bifidobacterium breve* supplements had improved GI symptoms and mood when compared to the placebo group. Another study randomly assigned participants with anxiety, depression, and/or sleep issues to *Lactobacillus reuteri*, *Bifidobacterium adolescentis*, or a placebo for 8 weeks. At the end of the study, those taking a probiotic supplement reported better sleep and improvements in their depression and anxiety.

These new discoveries about the GBA have brought about a new term: psychobiotics. Coined around 2013, this term describes specific probiotics that seem to have a role in regulating the GBA. They have been shown to help regulate GI activity and appear to possess antidepressant and anxiolytic effects. As research into this field continues to grow, it becomes clearer that there is a connection between the gut and mental health. Studies have shown that over 90% of the body's serotonin is made in the gut. If the gut microbiota is disrupted, the production of serotonin and other neurotransmitters will lose efficiency.

Therefore, supplementing the ailing microbiome with a probiotic may be key to remedying symptoms of depression by improving not only GI health, but also mental health for many patients. Testing options for dysbiosis of microbiota and related health risks are available. Check with your healthcare provider or consult your pharmacist for microbiota testing options.



Author: Tiffany Thomas, Pharmacy Student at Chapman University
Editor: Eric Kwei, Bachelor of Biology at UC Riverside