

HEALTH HIGHLIGHT

PROBIOTICS FOR MOOD SUPPORT



Recent research has discovered something extraordinary: that consuming specific types of probiotic supplements can have a positive effect on mood, through interactions with the microbiome and effects on the gut-brain axis.

What is the microbiome?

Our gut contains trillions of bacteria, some of which are beneficial, while others are harmful or opportunistic. Collectively these bacteria are known as the microbiome, and they play a vital role in maintaining our health.

How does the microbiome affect mood?

Gut bacteria affect mood through a communication pathway called the gut-brain axis. This involves microbiome-mediated vagus nerve signalling, production of neurotransmitters and other neuroactive substances, and control of inflammation.

Research has revealed that our gut bacteria affect mood through a variety of mechanisms.

Can altering the microbiome alter mood?

Scientists have shown that the make-up of the microbiome is different in people with mood disorders and neuro-development conditions like Autism Spectrum Disorder than in the general population. Preliminary research shows that altering the microbiome can improve mood and even beneficially alter behaviour. The microbiome can be positively altered through fibre supplementation and supplementation with specific probiotics known as psychobiotics.

What are psychobiotics?

Psychobiotics are a class of probiotic which confer a mental health benefit when ingested in adequate amounts. These benefits may come directly from the psychobiotics or may come about through interaction of the psychobiotics with the existing microbiome already in your digestive system.

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Lactobacillus reuteri – A novel psychobiotic

Studies in animals and humans have shown that psychobiotics can affect mood, cognition and behaviour in a positive way. The exact effects depend on the type and the strain of bacteria used. For example, supplementation with a psychobiotic called *Lactobacillus reuteri* ATCC PTA 6475 improves social behaviour in animal models of Autism Spectrum Disorder. This is mediated through its effect on gut lining integrity, systemic inflammation, and neurotransmitter production. Other strains have shown benefit in improving low mood.

Summary

Caring for your microbiome through healthy eating and supplementation with the correct psychobiotic strains may improve mental wellbeing.

If you want to know more about psychobiotics, and what strategies you can use to support better mental health, contact your healthcare Practitioner today!

References:

- Dinan, T. G., Stanton, C., & Cryan, J. F. (2013). Psychobiotics: a novel class of psychotropic. *Biological psychiatry*, 74(10), 720-726. <https://www.sciencedirect.com/science/article/abs/pii/S0006322313004083>.
- Tabouy, L., Getselter, D., Ziv, O., Karpuz, M., Tabouy, T., Lukic, I., ... & Koren, O. (2018). Dysbiosis of microbiome and probiotic treatment in a genetic model of autism spectrum disorders. *Brain, behavior, and immunity*, 73, 310-319. <https://www.sciencedirect.com/science/article/abs/pii/S0889159118301880>.
- Sgritta, M., Dooling, S. W., Buffington, S. A., Momin, E. N., Francis, M. B., Britton, R. A., & Costa-Mattioli, M. (2019). Mechanisms underlying microbial-mediated changes in social behavior in mouse models of autism spectrum disorder. *Neuron*, 101(2), 246-259. <https://www.sciencedirect.com/science/article/pii/S0896627318310092>.