## How probiotics can relieve depression symptoms

Probiotics either taken by themselves or when combined with prebiotics, may help to ease depression, suggests a review of the available evidence, published in BMJ Nutrition Prevention & Health.

But as to whether they might help to lessen anxiety isn't yet clear, say the researchers.

Foods that broaden the profile of helpful bacteria in the gut are collectively known as probiotics, while prebiotics are compounds that help these bacteria to flourish.

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A two-way relationship exists between the brain and the digestive tract, known as the gut-brain axis. And the possibility that the microbiome–the range and number of bacteria resident in the gut–might help treat mental ill health has become a focus of interest in recent years.

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In all, 12 probiotic strains featured in the selected studies, primarily Lactobacillus acidophilus, Lactobacillus casei, and Bifidobacterium bifidium. One study looked at combined pre-probiotic treatment, while one looked at prebiotic therapy by itself.

The studies varied considerably in their design, methods used, and clinical considerations, but all of them concluded that probiotic supplements either alone or in combination with prebiotics may be linked to measurable reductions in depression.

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Probiotics may help reduce the production of inflammatory chemicals, such as cytokines, as is the case in inflammatory bowel disease, suggest the researchers. Or they may help direct the action of tryptophan, a chemical thought to be important in the gut-brain axis in psychiatric disorders.

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