Probiotics can alleviate depressive and anxiety symptoms: a systematic review

Dated: 08/05/2017

A systematic review by Wallace, C. J., & Milev, R.
Annals of General Psychiatry, 16(1), 14.(2017)
The effects of probiotics on depressive symptoms in humans: a systematic review.

Patients suffering from major depressive disorder (MDD) experience significant mood, anxiety and cognitive symptoms. As a result, (MDD) can significantly impair the daily functioning of these patients. The underlying cause of this complex psychiatric disorder is still unknown. In the last decade, research has revealed that the gastrointestinal tract communicates with the central nervous system, referred to as the ‘gut-brain axis’. Furthermore, several central nervous system disorders such as MDD have been linked to changes in the gut microbiota. Probiotics are known for their ability to influence the gut microbiota composition. For this reason, probiotics have received much attention as a potential new antidepressant treatment. Several rodent studies have already demonstrated the ability of probiotics to alter neurotransmitter activity (the chemicals by which cell from the central nervous system communicate). Moreover, by regulation critical neurotransmitters implicated in depression, probiotics also positively impact the central nervous system. Furthermore, probiotic consumption was shown to induce behavioral and psychological changes such as reduced anxiety- and depressive-like behaviors. The effect of probiotics on symptoms of MDD has also been assessed in human studies and a recent systematic review analyzed the current body of research (1). The majority of the studies showed positive results on all measures of MDD, with reduced anxiety symptoms and an improved mood. However, the strain of probiotic, the dosing and duration of treatment varied widely and additional double-blind randomized trials are needed to further determine the effect of probiotics in treating or alleviating symptoms of depression. Nonetheless, the evidence for probiotics alleviating depressive symptoms is compelling and probiotic consumption might offer a new, therapeutic option to treat MD.

Summary written by Tessa Hemrika, Winclove Probiotics
