## **Probiotics for the Mind**

Probiotics are healthy bacteria found in yogurts and other foods. There are 10 times as many bacterial cells as human cells in the body, and some of those bacterial cells are friendlier than others. They can aid digestion, reduce diarrhea, and even produce vitamins. The Western diet, which is high in sugars, fats, and processed foods, leads to high levels of unhealthy bacteria, and those bacteria in turn cause people to crave more fat and sugar (leading to obesity).

Probiotics cause a lot of changes that are relevant to depression. They balance stress hormones, increase brain growth factors like BDNF, reduce inflammation, and help produce serotonin. Around a dozen clinical studies have found that probiotics reduce anxiety and depression and improve memory and concentration.

In one study, probiotics reduce the rate of bipolar episodes 3-fold over a 6 month period.

There are many types of probiotics. On the back are the strains that have been studied for mental health.

For stomach problems gastrointestinal doctors recommend the *Align* brand. Many yogurts and other foods advertise that they contain probiotics; these are likely helpful but not as much as the tablet.



## **Probiotics for Fatty Liver**

If your liver is showing signs of problems, it is best to avoid Tylenol (acetaminophen), alcohol, and reduce fat and simple sugars in your diet. Weight loss can help the liver function better. Probiotics may be helpful for fatty liver. For gastrointestinal health, doctors recommend the *Align* brand. The strain used in a study for fatty liver was called VSL#3 (a mixture of eight probiotic strains); this may be hard (it is available as a prescription) to find but any probiotic may be helpful.

## Storage

Most probiotics are best stored in the fridge but can be kept outside the fridge for up to 2 weeks. However, many brands are labeled "shelf stable" and can be safely kept outside the fridge.

—Chris Aiken, MD, updated 4/30/2018

## **Probiotics for Mood and Anxiety**

Probiotic strain	What they help	Brands (find on Amazon)
Lactobacillus casei Lactobacillus helveticus Lactobacillus brevis Lactobacillus salivarius Lactobacillus lactis Lactobacillus acidophilus Lactobacillus rhamnosus Bifidobacterium longum Bifidobacterium bifidum Bifidobacterium lactis	Depression, stress, ruminative worry, anxiety, and concentration.  While all of the strains to the left have work, the ones with the most research behind them are:  1. Lactobacillus casei (alone or in combination)  2. Lactobacillus helveticus with Bifidobacterium longum	Lifted Naturals Mood Boosting (0.38/day) InnovixLabs Mood (\$0.57/day) Garden of Life Mood+ (\$1/day) Life Extension Florassist Mood (0.68/day)  ProbioSerene from Dr. Williams also works but is difficult to find.
Lactobacillus rhamnosus LG with Bifidobacterium lactis bb-12	Bipolar mania.  These strains can be safely taken with the ones for depression and anxiety above.	Usana probiotic stick, Culturelle Baby Grow and Thrive liquid, and Emergen-C drink contain both strains. Or take Align Daily Immune Support with regular Culturelle.
Lactobacillus rhamnosus	Post-partum depression	Culturelle and others
Bifidobacterium longum	Post traumatic stress	Lifted Naturals Mood Boosting (0.38/day) InnovixLabs Mood (\$0.57/day)
Lactocare zisttakhmir co	Depression with type-2 diabetes	Unknown
Lactobacillus casei	Depression with chronic fatigue syndrome	Restora Probiotic and others
Bifidobacterium longum NCC3001	Depression with irritable bowel syndrome	Various (see options for depression for longum, though NCC3001 form is difficult to find)
The easy choice:		

Best overall product for price and quality is at www.moodtreatmentcenter.com/products