



## Diet and supplements for Bipolar Disorder – Dr Alice Lam

Do you already use supplements, or are you thinking of trying some for your bipolar disorder?

A study in the USA found that one in five people with bipolar used a supplement long term. The most commonly taken supplements were fish oil, B vitamins, melatonin and multivitamins <sup>1</sup>.

Even with such popular usage and marketing messages like “safe” and “natural”, one should bear in mind that many supplements:

- are **unproven**

- have **side effects** especially in large amounts
- can **interact** with medications or supplements

In addition:

- because they are not officially medications, regulations regarding **quality and quantity** of active ingredients are variable and difficult to enforce
- marketing terms may be **misleading** “certified” and “verified” (not being legally recognised terms)<sup>2</sup>

Because the amount of information can be quite confusing, in this article we'll try to summarise current knowledge. You can read all the way through or just skip to the section that most interests you. Abbreviations are expanded in the footnotes.

As an aside, diet and supplements are not recommended as replacements for medication. However, there is hope that in the future, individual dosing could be used to minimise or possibly eliminate medication, according to Dr William Walsh, scientist and expert in nutritional medicine of the Walsh Research Institute<sup>3</sup>.

### **Omega-3 fatty acids**

Omega-3 fatty acids are nutrients that are naturally occurring and found in the form of EPA and DHA in foods like salmon, tuna, sardines, free-range chicken and omega-3 fortified eggs. A third form of omega-3 called ALA is found in dark green leafy vegetables like spinach, walnuts, flaxseeds and soybean.

Only small amount of dietary ALA can be converted into useful EPA and DHA. It is thought most people in the United States get enough ALA from the foods they eat, as well as small amounts of EPA and DHA<sup>5</sup>.

Some research suggests that there is body inflammation in acute mania, and to a lesser extent, in bipolar depression<sup>4</sup>. It is possible that omega-3 fatty acids may reduce inflammation in the nervous system<sup>8</sup>.

However, though there are conflicting studies on whether omega-3 helps treat or prevent episodes of mania or depression<sup>6</sup>, Dr. Jeffrey Rakofsky (Assistant Professor in the Mood and Anxiety Disorders Program at Emory University School of Medicine in Atlanta, Georgia, USA) and Dr. Boadie Dunlop (Director of the Mood and Anxiety Disorders Program at Emory University) reviewed data from multiple trials and felt there was **reasonably strong evidence compared to other supplements for bipolar depression**<sup>7</sup>.

Dr. Candida Fink, an experienced psychiatrist in New York (who co-authored a book for patients along with John Kraynak, who has lived experience of bipolar disorder) writes that most doctors would suggest 1-2 grams daily EPA for antidepressant effect<sup>8</sup>.

### **SAMe**

SAMe is found in the body and is made from methionine, an amino acid found in foods. It has been widely studied in people with unipolar depression and bipolar disorder.

It has been advised that SAMe **should not be taken for bipolar depressive symptoms as SAMe may induce or worsen symptoms of mania**. There is also concern that SAMe may interact with other supplements and medications by increasing levels of serotonin (a chemical produced by nerve cells), such as antidepressants, L-tryptophan, and St. John's wort<sup>9</sup>.

Dr William Walsh even states that some people with bipolar disorder could already have excessive SAMe in their bodies<sup>3</sup>.

### **St. John's Wort**

This yellow flower has been used as a medicine since ancient times as "the devil's scourge" to ward off evil spirits. It was popular in the early 2000's but popularity has waned due to concerns about lack of efficacy and risk of interaction with other medications<sup>8</sup> e.g. may reduce benzodiazepine effectiveness.

Although many studies suggest St. John's Wort can help treat mild-moderate unipolar depression, there **doesn't seem to be any strong evidence for treatment of bipolar depression**. It is also risky to take along with other antidepressants due to the possibility of developing serotonin syndrome (this can cause tremor, diarrhoea and confusion) or **triggering mania**<sup>10</sup>.

## Melatonin

Melatonin is produced by the brain in reaction to the amount of ambient light, and thus helps us regulate our circadian rhythm. In turn, it is possible that the body rhythm helps regulate mood and vice versa.

In people with mania, some studies suggest there is an early rise of lower melatonin levels, compared to healthy people and those with unipolar depression<sup>11</sup>.

Early research shows that taking melatonin at bedtime increases sleep duration and reduces manic symptoms in people with bipolar disorder who also have insomnia. But there is also a risk that taking melatonin **might make symptoms worse** in some people with bipolar disorder<sup>12</sup>.

For now, there is a **lack of clear consensus on whether melatonin is helpful** in bipolar disorder<sup>11</sup>.

## Other supplements

**Coenzyme Q10** – This vitamin-like substance is found in the body, and in small amounts in meats and seafood. It is commonly used for heart health. Early research shows that taking coenzyme Q10 may improve symptoms of depression in people over 55 years of age with bipolar disorder, but **more research is needed**<sup>13</sup>.

**5-HTP** – This substance is produced by the body and present in the seeds of an African plant called Griffonia simplicifolia. It increases serotonin production which itself affects mood, sleep and other body functions. There is **a little evidence it can help with depression, anxiety and sleep**, but just as with St. John's Wort, if taken along with other antidepressants there is a risk of developing **serotonin syndrome**<sup>8,14</sup>.

**GABA** – Made by the brain, GABA is thought to help anxiety and mood by blocking brain signals. However, there is **little evidence to confirm its efficacy for mood and anxiety**, nor consensus on safe dosage<sup>15</sup>.

**Inositol**<sup>7,8</sup> – Mood stabilising medication like lithium and valproate are thought to work by stabilising the vitamin-like inositol's signals within cells. Dr. Jeffrey Rakofsky and Dr. Boadie Dunlop found **just one study that showed possibly efficacy**. There is also a **risk of triggering mania**.

**Kava** – Part of the pepper family, this herb is native to islands in the South Pacific. Many people take this for anxiety. There are **mixed conclusions about efficacy**, and it has been linked to **severe liver injury**, especially if combined with alcohol<sup>16</sup>.

**NAC** – this substance is used by the body to make antioxidants (such as glutathione) that help the body's cells recover from stress and damage. A group of researchers reviewed multiple studies and **could not advise NAC as a safe, effective treatment** for bipolar disorder<sup>17</sup>.

**Valerian** has a distinctive odour and is extracted from a plant native to Europe and Asia. Out of 250 species *V. officinalis* is most commonly used. A **review of nine trials was inconclusive for valerian's sleep benefits**. It can interact with benzodiazepines and other supplements such as St. John's wort, kava, and melatonin<sup>18</sup>.

## Vitamins and minerals

**Vitamins B1, B6, B12** – there is **a lack of good evidence to say these help people with bipolar disorder**.

**Vitamin D** – some studies show a link between depression and low vitamin D. However, but there is **insufficient evidence to recommend it for bipolar depression**<sup>8</sup>.

**Folic acid** – also known as vitamin B9 and found in the form L-methylfolate, it has been shown in some studies to enhance antidepressant response in people with unipolar depression<sup>19</sup>. However, in a review, Dr. Jeffrey Rakofsky and Dr. Boadie Dunlop **did not find good supporting data** for folic acid in bipolar depression treatment<sup>7</sup>.

Although taking folic acid does not appear to improve the antidepressant effects of lithium in people with bipolar disorder, WebMD suggests that **taking folate with the medication valproate may improve the effects of valproate**<sup>20</sup>.

Dr Walsh comments that people with bipolar disorder may have folate under- or overload, so individual tailoring of folate supplementation may be beneficial<sup>3</sup>.

**Zinc** – In earlier studies, lower blood levels of zinc were linked to depression. However, evidence seems to be pointing towards **a use only in unipolar depression** by increasing the efficacy of antidepressant therapy.

**Magnesium** – A 1990 study of rapid cycling bipolar patients suggested that taking magnesium might have had an effect as strong as lithium in about half the people<sup>21</sup>. Another study in 2000 suggested that taking magnesium with the drug verapamil reduced manic symptoms better than verapamil alone<sup>22</sup>. **More studies are needed.**

In short, with this array of frequently inconclusive data, it would be advisable to have a chat with your psychiatrist first before taking supplements for bipolar disorder.

## Diet

### What we know

People with bipolar disorder have a higher incidence of obesity, diabetes, high blood pressure, and unhealthy blood fat levels. The reasons for this may include:

- being less physically active,
- poorer eating habits<sup>23</sup>
- medication side effects

There are even less well-understood possibilities, such as deliberately increasing sugar intake to reduce high levels of stress-induced blood cortisol<sup>24</sup>.

An interesting recent study<sup>25</sup> looked at the eating habits of 113 well people with bipolar and 160 people without bipolar. Those with bipolar were generally less adherent to a Mediterranean diet than the non-bipolar group, and 74% of the bipolar group were overweight versus 68% in the non-bipolar group. The levels of blood sugar and triglycerides (a type of blood fat) were also higher in the bipolar group.

A review of studies<sup>24</sup> looking at diet in bipolar disorder suggest the following:

- people with bipolar disorder consume more carbohydrates, and women with bipolar also have a higher total energy intake
- a larger seafood consumption is been associated with a lower incidence of bipolar disorder
- in Japan, there were more severe ratings of bipolar symptoms in those who had less frequent consumption of Mediterranean diet products

### What we can do

As well as goal-setting towards regular healthier meals and snacks and restoring a regular circadian rhythm (there is more on this is in the [October 2019 BipolarLife newsletter](#)), the amount and type of food are also important for our mood and energy levels.

Dr Ellen Frank, Professor of Psychiatry and Professor of Psychology at the University of Pittsburgh School of Medicine, Pennsylvania, recommends having **three to four smaller meals per day** to help keep mood and energy levels stable<sup>26</sup>.

Depression and Bipolar Support Alliance (DBSA) suggests keeping a **food and mood journal** to see if a symptom is triggered by something dietary<sup>27</sup>. An example might be agitation and nervousness after a certain amount of caffeine, or broken sleep, low mood and poorer impulse control after alcohol.

Given the above study findings, it may help to follow a portion-controlled **Mediterranean-type diet** (definitions vary) to help with mood and energy.

This diet typically looks like this:

### **HIGHER AMOUNTS:**

- fruits, vegetables, legumes
- wholegrains and cereals
- nuts and seeds

### **LOW-MODERATE AMOUNTS:**

- healthy fats like olive oil and avocado instead of butter
- seafood, poultry, dairy
- little or no red meat

If there are additional challenges to meet such as medication-related weight gain, you could also get support from your doctor and/or dietician. Don't forget to check out online resources including

- The Collaborative REsearch Team to study psychosocial issues in Bipolar Disorder ([CREST B.D.](#)) and
- Depression and Bipolar Support Alliance ([DBSA](#))

Disclaimer: this content is not a substitute for individual medical advice.

***Dr Alice Lam / 6th November 2019***

## **References**



1. Bauer, M., 2015. Common use of dietary supplements for bipolar disorder: a naturalistic, self-reported study. *International Journal of Bipolar Disorders*, [Online]. 3, 12. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4451053/> [Accessed 27 October 2019].
2. Depression and Bipolar Support Alliance (DBSA). 2019. What You Need to Know About Dietary Supplements. [ONLINE] Available at: [https://secure2.convio.net/dabsa/site/SPageServer/TR/pdfs/pdfs/devo/PageServer;jsessionid=00000000.app274a?NONCE\\_TOKEN=BB856198664DE4815756376A410964EA&pagename=wellness\\_depression\\_dietary\\_supplements](https://secure2.convio.net/dabsa/site/SPageServer/TR/pdfs/pdfs/devo/PageServer;jsessionid=00000000.app274a?NONCE_TOKEN=BB856198664DE4815756376A410964EA&pagename=wellness_depression_dietary_supplements). [Accessed 27 October 2019].
3. International Bipolar Foundation. (2019). Biochemistry Features of Bipolar Disorders and Advanced Nutrient Therapies. [Online Video]. 1 October 2016. Available from: <https://www.youtube.com/watch?v=rQdsWVm9-sw>. [Accessed: 27 October 2019].
4. Muneer, A., 2019. Bipolar Disorder: Role of Inflammation and the Development of Disease Biomarkers. *Psychiatry Investigation*, [Online]. 13(1), 18–33. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4701682> [Accessed 27 October 2019].
5. US Department of Health and Human Services, Office of Dietary Supplements, National Institutes of Health. 2019. Omega-3 Fatty Acids. [ONLINE] Available at: <https://ods.od.nih.gov/factsheets/Omega3FattyAcids-Consumer/>. [Accessed 27 October 2019].
6. 2018. Bipolar Disorder Supplements. [ONLINE] Available at: <https://www.webmd.com/bipolar-disorder/guide/bipolar-disorder-supplements#3>. [Accessed 27 October 2019].
7. Psychiatric Times. 2014. To Supplement or Not to Supplement: That Is the Bipolar Depression Question. [ONLINE] Available at: <https://www.psychiatrictimes.com/psychopharmacology/supplement-or-not-supplement-bipolar-depression-question>. [Accessed 27 October 2019].
8. Fink, C. and Kraynak, J., 2016. *Bipolar Disorder for Dummies*. 3rd ed. New Jersey, USA: John Wiley & Sons, Inc.
9. National Center for Complementary and Integrative Health (NCCIH). 2017. S-Adenosyl-L-Methionine (SAME): In Depth. [ONLINE] Available at: <https://nccih.nih.gov/health/supplements/SAME>. [Accessed 27 October 2019].
10. Pipich, M, 2018. *Owning Bipolar, How Patients and Families Can Take Control of Bipolar Disorder*. Citadel Press.

11. De Berardis, D., 2015. The role of melatonin in mood disorders. *ChronoPhysiology and Therapy*, [Online]. 2015:5, 65-75. Available at: <https://www.dovepress.com/the-role-of-melatonin-in-mood-disorders-peer-reviewed-fulltext-article-CPT> [Accessed 27 October 2019].
12. 2018. Melatonin. [ONLINE] Available at: <https://www.webmd.com/vitamins/ai/ingredientmono-940/melatonin>. [Accessed 27 October 2019].
13. 2018. Coenzyme Q10. [ONLINE] Available at: <https://www.webmd.com/vitamins/ai/ingredientmono-938/coenzyme-q10>. [Accessed 27 October 2019].
14. 2018. 5-HTP. [ONLINE] Available at: <https://www.webmd.com/vitamins/ai/ingredientmono-794/5-htp>. [Accessed 27 October 2019].
15. 2018. GABA (Gamma-aminobutyric acid). [ONLINE] Available at: <https://www.webmd.com/vitamins/ai/ingredientmono-464/gaba-gamma-aminobutyric-acid>. [Accessed 27 October 2019].
16. National Center for Complementary and Integrative Health (NCCIH). 2016. Kava. [ONLINE] Available at: <https://nccih.nih.gov/health/kava>. [Accessed 27 October 2019].
17. Zheng, W., 2019. N-acetylcysteine for major mental disorders: a systematic review and meta-analysis of randomized controlled trials. *Acta Psychiatrica Scandinavica*, [Online]. 137(5), 391-400. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29457216> [Accessed 27 October 2019].
18. US Department of Health and Human Services, Office of Dietary Supplements, National Institutes of Health. 2013. Valerian. [ONLINE] Available at: <https://ods.od.nih.gov/factsheets/Valerian-HealthProfessional/>. [Accessed 27 October 2019].
19. Shelton, R., 2013. The Primary Care Companion for CNS Disorders. Assessing Effects of L-Methylfolate in Depression Management: Results of a Real-World Patient Experience Trial, [Online]. 15(4). Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3869616> [Accessed 27 October 2019].
20. 2018. Folic acid. [ONLINE] Available at: <https://www.webmd.com/vitamins/ai/ingredientmono-1017/folic-acid>. [Accessed 27 October 2019].
21. Chouinard, G., 2019. A pilot study of magnesium aspartate hydrochloride (Magnesiocard) as a mood stabilizer for rapid cycling bipolar affective disorder patients. *Progress in Neuro-Psychopharmacology & Biological*

Psychiatry, [Online]. 14(2), 171-80. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/2309035> [Accessed 27 October 2019].

22. Giannini, A., 2000. Magnesium oxide augmentation of verapamil maintenance therapy in mania. *Psychiatry Research*, [Online]. 93(1), 83-7. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/10699232> [Accessed 27 October 2019].

23. Sylvia, L., 2013. Nutrition, Exercise, and Wellness Treatment in bipolar disorder: proof of concept for a consolidated intervention. *International Journal of Bipolar Disorders*, [Online]. Available at: <https://journalbipolar disorders.springeropen.com/articles/10.1186/2194-7511-1-24> [Accessed 27 October 2019].

24. Łojko, D., 2018. Is diet important in bipolar disorder? *Psychiatria polska*, [Online]. 52(5), 783-795. Available at: [http://psychiatriapolska.pl/uploads/images/PP\\_5\\_2018/ENGver783Lojko\\_PsychiatrPol2018v52i5.pdf](http://psychiatriapolska.pl/uploads/images/PP_5_2018/ENGver783Lojko_PsychiatrPol2018v52i5.pdf) [Accessed 27 October 2019].

25. Łojko, D., 2019. Diet quality and eating patterns in euthymic bipolar patients.. *European Review for Medical and Pharmacological Sciences*, [Online]. 23(3), 1221-1238. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30779092> [Accessed 27 October 2019].

26. (2019). Treatment Choices: Options for Bipolar Disorder. [Online Video]. 2 December 2014. Available from: <https://www.youtube.com/watch?v=gzgi9Sr7twY&t=1137s>. [Accessed: 10 October 2019].

27. Depression and Bipolar Support Alliance (DBSA). 2019. Nutrition. [ONLINE] Available at: <https://www.dbsalliance.org/wellness/wellness-toolbox/lifestyle/nutrition/>. [Accessed 27 October 2019].

28. BD Bipolar Wellness Centre. 2015. Why diet and nutrition are important to your quality of life. [ONLINE] Available at: <http://www.bdwellness.com/Quality-of-Life-Areas/Physical/DietAndNutrition>. [Accessed 27 October 2019].

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