



INFORMED CHOICES ABOUT

DEPRESSION

Dietary supplements to treat depression

Key Points:

- The amount of research on dietary supplements for the treatment of depression is small when compared to the large amount of information on the use of prescription medication and psychotherapy for the same problem. Therefore, conclusions about dietary supplements are more uncertain.
- A number of dietary supplements have been studied as treatment for depression. The ones that have research indicating that they may help in the treatment of depression are: Omega 3, SAM-e, and folate.
- As with other treatments, supplements must be taken in the right dose range to be effective. Too low a dose may not be effective and too high a dose may cause health problems.
- Dietary supplements can interact with other commonly-used medicines and may have side effects so it important to let your doctor and your pharmacist know if you are taking a supplement along with other medicines.

DEPRESSION

Omega 3

- Omega 3, a fatty acid found in fish and other foods, has been studied as a treatment for depression on its own and in combination with antidepressant medication.
- There are several forms of Omega 3 and only one form, EPA (eicosapentaenoic acid), has been found in some studies to be as helpful as common antidepressant medicines in the treatment of depression when an adequate dose is taken. Other studies have not found it to be effective. More studies are needed with a range of doses of Omega 3 to tell us whether it may be helpful used by itself as a treatment for depression.
- The dose which has been recommended recently is in the range of 1000-2000 mg/day of an EPA/DHA combination, usually at an EPA to DHA ratio of 3:2 or greater.
- Omega 3 (EPA form) has also been studied as an add-on or supplementary treatment in persons who have not responded sufficiently to treatment with one of the common antidepressant medicines. The results have been promising but more research is needed to be sure of the dose range that is helpful.
- There has been no research on Omega 3 as a treatment for the most severe forms of depression.

SAM-e

- S-adenosyl methionine (SAM-e) is a natural substance that is involved in important chemical reactions in the body and the brain.
- It has been found in some studies to be as helpful as common antidepressant medicines in the treatment of depression.
- SAM-e has also been studied as an add-on or supplementary treatment in persons who have not responded sufficiently to treatment with one of the common antidepressant medicines. In one study, about one in three people taking the combined treatment (SAM-e and the antidepressant) showed a response after SAM-e was added.
- The results of these studies are promising but more research is needed to be sure of the dose range that is helpful.
- There has been no research on SAM-e as treatment for the most severe forms of depression.

DEPRESSION

Folate

- Folate, or folic acid, is a B vitamin that we get from eating green vegetables and many other foods or supplements. The body does not store folate so it has to be consumed daily. It is important that women who are pregnant or may become pregnant have a diet rich in folate to protect their health and the health of the fetus.
- Folate is often low in persons with depression and a low folate level is related to limited response to antidepressant medications.
- Low folate has a number of health effects and it is highly recommended that this problem be treated medically.
- There is no indication that treating low folate by itself has an important impact on depression.
- One study has shown that when people do not respond to a common antidepressant medication for depression, adding l-methylfolate (a form of folate that is well metabolised in the brain) had a positive impact for about one in three of the non-responders.

Considering treatment with a dietary supplement

- If you are considering treatment with a supplement it would be helpful to discuss this with your family doctor.
- Your doctor may be able to advise you on what type of treatment is most likely to be helpful.
- If your doctor is not familiar with these treatments, he or she may be able to refer you to a specialist who can advise you.
- Finding a reliable source of the supplements is important. They may be purchased from a pharmacy or a health food store. It is important to also know the dose range that has been found to be helpful. Your physician or pharmacist may be able to help you with this information. The dietary supplements provided by manufacturers may not be at the dosage recommended for treatment so it may be necessary to take several of the pills a day to get to the correct dose.
- Since dietary supplements are not prescription medicines, they are not covered by provincial or private insurance plans for prescription medicines. They can be expensive so check the cost

INFORMED CHOICES ABOUT

DEPRESSION

when you are planning the approach you prefer. It is usually recommended that treatment for depression continues for at least a year.

- More research is needed on the long-term results of treatment with dietary supplements.

Disclaimer: Information in this pamphlet is offered 'as is' and is meant only to provide general information that supplements, but does not replace the information from your health provider. Always contact a qualified health professional for further information in your specific situation or circumstance.

For more fact sheets and information about depression and its treatment please visit: <http://depression.informedchoices.ca/>

You are free to copy and distribute this material in its entirety as long as 1) this material is not used in any way that suggests we endorse you or your use of the material, 2) this material is not used for commercial purposes (non-commercial), 3) this material is not altered in any way (no derivative works). View full license at <http://creativecommons.org/licenses/by-nc-nd/2.5/ca/>

Source: This summary provides scientifically accurate information. It was prepared in a research review by researchers and young adults with the Mobilizing Minds Research Group. The researchers are based at six universities: Manitoba, York, McMaster, Brock, Brandon, and Université Laval. Our core community partner is mindyourmind.ca located in London, Ontario. Our young adult team members are located all across the country. Last revised: 2 January 2014.

Acknowledgement: Preparation of this material was supported by funding from the Canadian Institutes of Health Research and the Mental Health Commission of Canada. The views expressed here do not necessarily represent the views of these organizations.

References:

Bloch, M.H., & Hannestad, J. (2011). Omega-3 fatty acids for the treatment of depression: systematic review and meta-analysis. *Molecular Psychiatry*, 17(12):1272-1282. doi: 10.1038/mp.2011.100.

Bloch, M.H., & Hannestad, J. (2012). Response to critiques on 'Omega-3 fatty acids for the treatment of depression: systematic review and meta-analysis'. *Molecular Psychiatry*, 17, 1163-1167. doi:10.1038/mp.2012.116.

INFORMED CHOICES ABOUT

DEPRESSION

Bottiglieri, T. (2013). Folate, vitamin B₁₂, and S-adenosylmethionine. *Psychiatric Clinics of North America*, 36(1), 1-13. doi: 10.1016/j.psc.2012.12.001.

Gertsik, L., Poland, R.E., Bresee, C., & Rapaport, M.H. (2012). Omega-3 fatty acid augmentation of citalopram treatment for patients with major depressive disorder. *Journal of Clinical Psychopharmacology*, 32(1), 61-64. doi: 10.1097/JCP.0b013e31823f3b5f.

Howland, R.H. (2012). Dietary supplement drug therapies for depression. *Journal of Psychosocial Nursing and Mental Health Services*, 50(6), 13-16. doi: 10.3928/02793695-20120508-06.

Lin, P.Y., Mischoulon, D., Freeman, M.P., Matsuoka, Y., Hibbeln, J., Belmaker, R.H., & Su, K.P. (2012). Are omega-3 fatty acids antidepressants or just mood-improving agents? The effect depends upon diagnosis, supplement preparation, and severity of depression. *Molecular Psychiatry*, 17(12), 1161-1167. doi: 10.1038/mp.2012.111.

Martins, J.G., Bentsen, H., & Puri, B.K. (2012). Eicosapentaenoic acid appears to be the key omega-3 fatty acid component associated with efficacy in major depressive disorder: a critique of Bloch and Hannestad and updated meta-analysis. *Molecular Psychiatry*, 17(12):1144-1149. doi: 10.1038/mp.2012.25.

Mischoulon, D., & Freeman, M.P. (2013). Omega-3 fatty acids in psychiatry. *Psychiatric Clinics of North America*, 36(1), 15-23. doi: 10.1016/j.psc.2012.12.002.

Nahas, R., & Sheikh, O. (2011). Complementary and alternative medicine for the treatment of major depressive disorder. *Canadian Family Physician*, 57(6), 659-663.

Papakostas, G.I., Mischoulon, D., Shyu, I., Alpert, J.E., & Fava, M. (2010). S-adenosyl methionine (SAME) augmentation of serotonin reuptake inhibitors for antidepressant nonresponders with major depressive disorder: a double-blind, randomized clinical trial. *American Journal of Psychiatry*, 167(8), 942-948. doi: 10.1176/appi.ajp.2009.09081198.

Papakostas, G.I., Shelton, R.C., Zajecka, J.M., Etemad, B., Rickels, K., Clain, A., . . . Fava, M. (2012). L-methylfolate as adjunctive therapy for SSRI-resistant major depression: results of two randomized, double-blind, parallel-sequential trials. *American Journal of Psychiatry*, 169(12), 1267-1274. doi: 10.1176/appi.ajp.2012.11071114.

Sublette, M.E., Ellis, S.P., Geant, A.L., & Mann, J.J. (2011). Meta-analysis of the effects of eicosapentaenoic acid (EPA) in clinical trials in depression. *Journal of Clinical Psychiatry*, 72(12), 1577-1584. doi: 10.4088/JCP.10m06634.