

# Can Fats Make You Happy?

## Omega-3 Fatty Acids and Your Mental Health

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It's true what they say. Fats can make you happy—as long as they're the right kind. And the fats with the right stuff are the Omega-3 fatty acids. You may already know that Omega-3s are good for your heart. What you may not know is that Omega-3s can help you cope with stress and protect your mental health.

### **You Are What You Eat: Fatty Acids and Depression**

Does it seem like more and more people you know are depressed? You're not imagining things. Depression is on the rise—both here and abroad. And much of this increase is due to what we eat. Over the last century, we've increased the amount of Omega-6 fatty acids in our diets, while simultaneously decreasing the amount of Omega-3s. Omega-6s are found in vegetable oils, such as corn and safflower oils, and are a staple of many processed foods. Omega-3 fatty acids are polyunsaturated fats found in plant and marine sources, and most Americans don't eat enough of them (Freeman, 2000). As a result, we are often deficient in Omega-3s and this deficiency can lead to a whole host of problems—including depression.





**“Changes in our diets have increased our levels of inflammation and our risk of depression.”**

**Fatty Cold Water Fish are the best dietary source of EPA and DHA but can contain high levels of contaminants**

## Omega-3s, Omega-6s and Inflammation

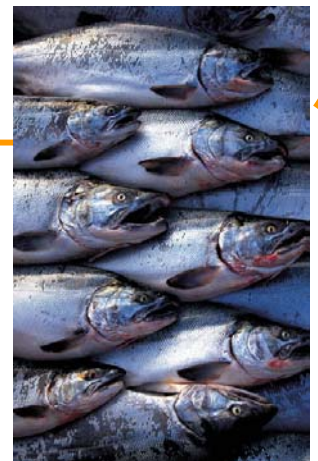
This change in our diets does bad things to our bodies. While we need some Omega-6s, most Americans get way too many. And excessive Omega-6s increase inflammation (Maes & Smith, 1998), which makes us vulnerable to depression. Inflammation also increases the risk of diseases such as coronary heart disease, diabetes, and even cancer, and it explains why people with these diseases are often depressed as well (Robles et al., 2005).

There are a number of reasons why inflammation increases the risk of depression. First, when inflammation levels are high, people experience classic symptoms of depression such as fatigue, lethargy, and the desire to withdraw. Second, inflammation increases levels of cortisol—a stress hormone that is often elevated in depressed people. And finally, inflammation decreases the neurotransmitter serotonin by lowering levels of its precursor, tryptophan (Maes & Smith, 1998).

Researchers have also learned about the depression-inflammation connection by studying treatments that alleviate depression. For example, did you know that antidepressant medications are also anti-inflammatory? The same is true for the herbal antidepressant St. John’s wort. And this brings us to the Omega-3 fatty acids.

Omega-3s also lower inflammation by lowering the number of cells in our blood stream that cause it (known as pro-inflammatory cytokines). A recent large study in Italy found that people with high levels of Omega-3s in their blood had low levels of inflammation. In contrast, people with low levels of Omega-3s had higher levels of inflammation (Ferrucci et al., 2006).

The mental-health effects of dietary Omega-3s can be seen several recent studies. These studies found that populations with higher levels of Omega-3s in their diets had lower rates of major depression (Tanskanen et al., 2001), postpartum depression (Hibbeln, 2002), bipolar disorder (Noagliul & Hibbeln, 2003), and even suicide (Sublette et al., 2006). So how can you get more Omega-3s in your diet?



## Omega-3s are Not Created Equal

Go into any well-stocked supermarket and note the dizzying array of foods that are fortified with Omega-3s: eggs, cereal, soy milk, snack bars. But with regard to depression, Omega-3s are not all created equal. If you are interested in Omega-3s for depression, it's important to know what you are buying. Many products that list Omega-3s contain alpha-linolenic acid (ALA). ALA is the Omega-3 found in flaxseed, walnuts and other plant sources. It is an essential fatty acid and is beneficial to cardiovascular health. But it is not effective in either the prevention or treatment of depression (Bratman & Girman, 2003). If you want the anti-depressant effects of Omega-3s, you must look for foods or supplements containing the long-chain Omega-3 fatty acids: EPA and DHA.



### EPA, DHA and Depression

Getting EPA and DHA from seafood can ease depression. However, seafood contaminated with mercury and other compounds is a significant health hazard. You may not be able to safely eat enough fish in order to get an anti-depressant effect. The effects of contaminants are particularly important for pregnant and breastfeeding women since they can have a negative impact on the baby's developing nervous system.

Fortunately, there are many sources of EPA/DHA that are safe to take. Some sources include DHA alone, which can help prevent depression. Fish-oil supplements contain both EPA and DHA and have been used to treat depression, often in conjunction with medications. Sources of both pharmaceutical-grade and over-the-counter fish-oil products certified by the U.S. Pharmacopeia are widely available (see page 4). All of these brands are tested for contaminants and are safe to take.

Be sure to discuss any supplements you take with your health care provider as they can potentially interact with a small number of prescription medications.

In summary, long-chain Omega-3 fatty acids can have a major impact on your mental health. Make long-chain Omega-3s part of your daily diet. If you do, you'll discover what many others have learned: that the right kind of fat can indeed make you happy.

**Recommended  
Dosages**  
**200-400 mg DHA for  
prevention of  
depression**  
**1,000-2,000 mg EPA  
for treatment of  
depression**  
**FDA Recommended  
Safe Levels:**  
**3,000 mg DHA/EPA**

## Sources of Contaminant-Free EPA/DHA

Pharmaceutical-Grade Fish Oil (EPA & DHA)

Carlson Labs ([www.CarlsonLabs.com](http://www.CarlsonLabs.com))

Vital Nutrients ([www.VitalNutrients.net](http://www.VitalNutrients.net))

Brands of Over-the-Counter Fish-Oil Supplements certified by the U.S. Pharmacopeia

Berkley & Jensen, Equaline, Kirkland Signature, Nature Made,

NutriPlus ([www.usp.org](http://www.usp.org))

Vegetarian DHA Supplements

Neuromins DHA ([www.DHADepot.com](http://www.DHADepot.com))

O-mega-Zen-3 ([www.Nutru.com](http://www.Nutru.com))

Prenatal Supplements with DHA

OptiNate (First Horizons Pharmaceutical)

Citracal Prenatal + DHA (Mission Pharmacal)

DHA-Fortified Foods

DHA-fortified eggs (Brands: Gold Circle Farms)

Oh Mama! Nutrition bar for pregnant and breastfeeding women

Odwalla Soymilk

Bellybar Nutrition Bar (Nutrabella)



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## References

- Bratman, S., & Girman, A.M. (2003). *Handbook of herbs and supplements and their therapeutic uses*. St Louis, MO: Mosby.
- Freeman, M.P. (2000). Omega-3 fatty acids in psychiatry: A review. *Annual Clinics in Psychiatry*, 12, 159-165.
- Ferrucci, L., Cherubini, A., Bandinelli, S., Bartali, B., Corsi, A. Lauretani, T., et al. (2006). Relationship of plasma polyunsaturated fatty acids to circulating inflammatory markers. *Journal of Clinical Endocrinology & Metabolism*, 91, 439-446.
- Frangou, S., Lewis, M., & McCrone, P. (2006). Efficacy of ethyl-eicosapentaenoic acid in bipolar depression: Randomized double-blind placebo-controlled study. *British Journal of Psychiatry*, 188, 46-50.
- Hibbeln, J.R. (2002). Seafood consumption, the DHA content of mothers' milk and prevalence rates of postpartum depression: A cross-national, ecological analysis. *Journal of Affective Disorders*, 69, 15-29.
- Maes, M., & Smith, R.S. (1998). Fatty acids, cytokines, and major depression. *Biological Psychiatry*, 43, 313-314.
- Nemets, B., Stahl, Z., & Belmaker, R.H. (2002). Addition of omega-3 fatty acids to maintenance medication treatment for recurrent unipolar depressive disorder. *American Journal of Psychiatry*, 159, 477-479.
- Nemets, H., Nemets, B., Apter, A., Bracha, Z., & Belmaker, R.H. (2006). Omega-3 treatment of childhood depression: A controlled, double-blind pilot study. *American Journal of Psychiatry*, 163, 1098-1100.
- Noaghiul, S., & Hibbeln, J.R. (2003). Cross-national comparisons of seafood consumption and rates of bipolar disorders. *American Journal of Psychiatry*, 160, 2222-2227.
- Peet, M., & Horrobin, D.F. (2002). A dose-ranging study of the effects of ethyl-eicosapentaenoate in patients with ongoing depression despite apparently adequate treatment with standard drugs. *Archives of General Psychiatry*, 59, 913-919.
- Peet, M., & Stokes, C. (2005). Omega-3 fatty acids in the treatment of psychiatric disorders. *Drugs*, 65, 1051-1059.
- Robles, T. F., Glaser, R., & Kiecolt-Glaser, J. K. (2005). Out of balance: A new look at chronic stress, depression, and immunity. *Current Directions in Psychological Science*, 14, 111-115.
- Silvers, K.M., & Scott, K.M. (2002). Fish consumption and self-reported physical and mental health status. *Public Health Nutrition*, 5, 427-431.
- Sublette, M.E., Hibbeln, J.R., Galfalvy, H., Oquendo, M.A., & Mann, J.J. (2006). Omega-3 polyunsaturated essential fatty acid status as a predictor of future suicide risk. *American Journal of Psychiatry*, 163, 1100-1102.
- Tanskanen, A., Hibbeln, J.R., Tuomilehto, J., Uutela, A., Haukkala, A. Viinamaki, H., Lehtonen, J., & Vartiainen, E. (2001). Fish consumption and depressive symptoms in the general population of Finland. *Psychiatric Services*, 52, 529-531.

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