

Omega-3 fatty acids & Bipolar (Fish oils)

The omega fatty acids are a group of naturally occurring lipids. Lipids are vital for normal brain function and are called 'essential' as they have to come from the diet, as the body cannot manufacture them. There are two main types. 'Omega-3 fatty acid', often called the 'good' fat, is found in high concentrations in particularly cold water or oily fish (like salmon, cod and tuna) as well as from flax seed oil and some nuts. The other, 'Omega-6 fatty acid', is sometimes referred to as the 'bad fat'. This is found primarily in vegetable oils (i.e. corn or sunflower oils). These fatty acids play an important role in neuronal signal transduction, nerve cell membrane integrity and fluidity. The correct balance of these two fatty acids is essential for normal neuronal function.

Interest in the possible role of Omega-3 fatty acids in the treatment of Bipolar Disorder came about through a number of overlapping research areas. One was the recognition of the role and function of fatty acids in the brain, and the similarities between their function and the mechanism of action of the mood stabiliser Lithium and the anti-convulsant Sodium Valproate. The other was the observation from large epidemiological studies that countries whose diets which were largely depleted in Omega-3 fatty acids (Western European) had higher rates of coronary heart disease and major depression than those countries with higher rates of Omega-3 consumption (e.g. Japan, where consumption of fish is significantly higher). These findings have led to randomised, double blind, placebo controlled trials, which have looked at the effect of Omega-3 fatty acids used in conjunction with treatment as usual. Although the numbers of studies so far performed are small, results have been encouraging.

One study found that the addition of 9.6g/day of Omega-3 fatty acid daily led to a significantly longer period of remission in patients with Bipolar Disorder when compared to the placebo group. Another open label study has also reported benefits in using flaxseed oil in bipolar patients.

The dosages have varied in the different studies, especially those looking at the role of Omega-3 fatty acids in Bipolar Disorder and unipolar depression (9.6g/day vs. 2g/day). Limited side-effects have been reported, mild ones include having an unpleasant fishy taste and with the higher dosages, loose stools.

It appears from these preliminary studies that Omega-3 fatty acids are likely to be promising additional agents for use in Bipolar Disorder (positive results are also being found in studies in schizophrenia and unipolar depression), especially in light of their high tolerability, low toxicity and lack of drug interactions.