

Other research has confirmed the association between low DHA and EPA levels and impaired cognitive function. Other studies have found that fish oil supplementation improves mood, cooperation, appetite, sleep, and short-term memory in AD patients. The Guelph researchers conclude that an effort should be made to increase the intake of fish or fish oils in the population at large and the elderly in particular.

Conquer, Julie A., et al. *Fatty acid analysis of blood plasma of patients with Alzheimer's disease, other types of dementia, and cognitive impairment. Lipids, Vol. 35, December 2000, pp. 1305-12*

"dementia now affects about
47% of the Population
over 80 years of age in
western countries"



Low docosahexaenoic acid (DHA) levels & Alzheimer's disease

BOSTON, MASSACHUSETTS. Docosahexaenoic acid (DHA), a major component of fish oils, is the most important fatty acid in the brain and retina and makes up more than 30% of the structural lipid (fat) in neurons. There is ample evidence that a deficiency of DHA is associated with depression, attention deficit hyperactivity disorder, and dementia. Clinical studies have shown that an increased intake of DHA may benefit patients with dyslexia and Alzheimer's disease.

Researchers at Boston University and Tufts University School of Medicine now report that they have found a clear association between low blood levels (in the phosphatidylcholine fraction of serum) of DHA and the risk of developing Alzheimer's disease. Their study involved 1188 elderly Americans (mean age of 75 years) who had blood samples drawn and analyzed for DHA in 1985. Sixteen of the participants had clinically diagnosed Alzheimer's at the time of blood sampling. The researchers noted that 11 of the 16 (69%) had DHA levels in the lower half of the DNA distribution. The remaining 1172 participants were followed for 10 years. Again the researchers noted that participants with DHA levels in the lower half of the distribution had a 67% greater risk of developing Alzheimer's disease. The researchers suggest that maintaining adequate levels of DHA through the consumption of fish or dietary supplements rich in DHA may be particularly important for the elderly.

Kyle, D.J., et al. *Low serum docosahexaenoic acid is a significant risk factor for Alzheimer's dementia. Lipids, Vol. 34 (suppl), 1999, p. S245*

Omega-3 fatty acids: the missing link?

BERLIN, GERMANY. Dr. Emanuel Severus of the Berlin University points out that major depression is characterized by a deficiency of omega-3 fatty acids and that these acids possess powerful antiarrhythmic properties. He suggests that the missing link in the recently established association between major depression and sudden cardiac death may be the omega-3 fatty acid deficiency which characterizes both conditions.

Severus, W. Emanuel, et al. *Omega-3 fatty acids: the missing link? Archives of General Psychiatry, Vol. 56, April 1999, pp. 380-81 (letter to the editor)*

Fish consumption & depression

ROCKVILLE, MARYLAND. Dr. Joseph Hibbeln, a researcher at the National Institute on Alcohol Abuse and Alcoholism reports in a letter to *The Lancet* that he has found a convincing correlation between fish consumption and the incidence of major depression. Dr. Hibbeln correlated the annual incidence of major depression per 100 people in nine countries with the consumption of fish. He found a high incidence of depression in countries with low fish consumption. New Zealand with an annual fish consumption of only 40 lbs had an annual incidence rate of depression of 5.8 per cent while Korea with a fish consumption of more than 100 lbs/year had an annual incidence rate of only 2.3 per cent. Japan with a fish consumption of almost 150 lbs/year had the lowest incidence of major depression (0.12 per cent). Dr. Hibbeln cautions that various economic, social, cultural and other factors could have influenced his results, but points out that high blood plasma concentrations of docosahexaenoic acid, an essential fatty acid found in fish, has been linked to increased serotonin turnover and lower incidences of depression and suicide.

Hibbeln, Joseph R. *Fish consumption and major depression. The Lancet, Vol. 351, April 18, 1998, p. 1213 (correspondence)*