

# Abstract

J Am Coll Nutr. 2010 Feb;29(1):55-64.

## Effect of omega-3 fatty acids supplementation on depressive symptoms and on health-related quality of life in the treatment of elderly women with depression: a double-blind, placebo-controlled, randomized clinical trial.

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**OBJECTIVE:** In elderly individuals, depression is one of the most frequently missed diagnoses with negative effects on quality of life. The authors investigated whether a supplement containing long-chain omega-3 polyunsaturated fatty acids (n-3 LCPUFA) improves depressive symptoms and health-related quality of life (HRQoL) in depressed elderly patients.

**DESIGN:** Eight-week, randomized, double-blind, placebo-controlled trial.

**SETTING:** Nursing home in Pavia, Italy.

**PARTICIPANTS:** Forty-six depressed women, aged 66-95 years.

**INTERVENTION:** Twenty-two depressed women were included in the intervention group (n-3 group, which received 2.5 g/d of n-3 LCPUFA, with 1.67 g of eicosapentaenoic acid [EPA] and 0.83 g of docosahexaenoic acid [DHA]), and 24 patients were included in the placebo group. The primary endpoint was the improvement of depressive symptoms, as evaluated by the Geriatric Depression Scale (GDS). Secondary endpoints were the evaluation of HRQoL, by using the Short-Form 36-Item Health Survey (SF-36), and modifications of erythrocyte membrane phospholipids fatty acid profile. All variables were assessed before and after the treatment period of 8 weeks.

**RESULTS:** The mean GDS at 8 weeks was significantly lower compared with the n-3 group. The SF-36 physical and mental components were significantly increased in the intervention group. Compliance was good, as confirmed by erythrocyte membrane phospholipid FA concentrations, with a significant increase of EPA and DHA in the intervention group.

**CONCLUSION:** Supplementation with n-3 LCPUFA is efficacious in the amelioration of depressive symptoms and quality of life in the treatment of depressed elderly female patients.

PMID: 20595646

