

# Abstract

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## The efficacy of omega-3 supplementation for major depression: a randomized controlled trial.

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**OBJECTIVE:** To document the short-term efficacy of omega-3 supplementation in reducing depressive symptoms in patients experiencing a major depressive episode (MDE).

**METHOD:** Inclusive, double-blind, randomized, controlled, 8-week, parallel-group trial, conducted October 17, 2005 through January 30, 2009 in 8 Canadian academic and psychiatric clinics. Adult outpatients (N = 432) with MDE (Mini-International Neuropsychiatric Interview, version 5.0.0, criteria) lasting at least 4 weeks, including 40.3% taking antidepressants at baseline, were randomly assigned to 8 weeks of 1,050 mg/d of eicosapentaenoic acid (EPA) and 150 mg/d of docosahexaenoic acid (DHA) or matched sunflower oil placebo (2% fish oil). The primary outcome was the self-report Inventory of Depressive Symptomatology (IDS-SR(30)); the secondary outcome was the clinician-rated Montgomery-Asberg Depression Rating Scale (MADRS).

**RESULTS:** The adjusted mean difference between treatment and placebo was 1.32 points (95% CI, -0.20 to 2.84; P = .088) on the IDS-SR(30) and 0.97 points (95% CI, -0.012 to 1.95; P = .053) on the MADRS. Planned subgroup analyses revealed a significant interaction of comorbid anxiety disorders and study group (P = .035). For patients without comorbid anxiety disorders (n = 204), omega-3 supplementation was superior to placebo, with an adjusted mean difference of 3.17 points on the IDS-SR(30) (95% CI, 0.89 to 5.45; P = .007) and 1.93 points (95% CI, 0.50 to 3.36; P = .008) on the MADRS.

**CONCLUSIONS:** In this heterogeneous sample of patients with MDE, there was only a trend toward superiority of omega-3 supplementation over placebo in reducing depressive symptoms. However, there was a clear benefit of omega-3 supplementation among patients with MDE without comorbid anxiety disorders.

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