

EPA versus DHA OMEGA-3 in DEPRESSIVE DISORDERS

REFERENCE	DESCRIPTION	OUTCOME	EPA: DHA RATIO
Frangou S, Lewis M, McCrone P. Efficacy of ethyl-eicosapentaenoic acid in bipolar depression: randomized double-blind placebo-controlled study. Br J Psychiatry. 2006; 188: 46-50	75 adult subjects with bipolar depression, RCT design, 12 week intervention HRSD, YMRS, and CGI as endpoint measures	Significant benefit to HRSD and CGI	100% ethyl EPA 1000-2000mg per day
Keck PE Jr, Mintz J, McElroy SL, Freeman MP, Suppes T, Frye MA, Altshuler LL, Kupka R, Nolen WA, Leverich GS, Denicoff KD, Grunze H, Duan N, Post RM. Double-blind, randomized, placebo-controlled trials of ethyl eicosapentanoate in the treatment of bipolar depression and rapid cycling bipolar disorder. Biol Psychiatry. 2006; 60(9):1020-2.	116 adult subjects with bipolar depression, RCT design, followed for 4 months IDS, YMRS, and "switches" as endpoint measures	No significant impact to any endpoint measure	100% ethyl EPA 6000mg per day
Osher Y, Bersudsky Y, Belmaker RH. Omega-3 eicosapentaenoic acid in bipolar depression: report of a small open-label study. J Clin Psychiatry. 2005; 66(6): 726-9.	12 subjects with bipolar depression followed for 6 months HRSD as endpoint measure	Significant benefit to HRSD	100% ethyl EPA 2000mg per day
Zanarini MC, Frankenburg FR. omega-3 Fatty acid treatment of women with borderline personality disorder: a double-blind, placebo-controlled pilot study. Am J Psychiatry. 2003;160(1):167-9.	30 adult subjects with borderline personality disorder, RCT design, followed for 8 weeks MOAS, MADRS as endpoint measures	Significant benefit to MOAS and MADRS	100% EPA 1000mg per day
Peet M, Horrobin DF. A dose-ranging study of the effects of ethyl-eicosapentaenoate in patients with ongoing depression despite apparently adequate treatment with standard drugs. Arch Gen Psychiatry. 2002 ;59(10): 913-9.	70 patients, dose-ranging RCT design, followed for 12 weeks HRDS, MADRS, and BDI as endpoint measures	Significant benefit to HRSD, MADRS, and BDI	100% ethyl EPA 1000-4000mg per day (1000mg most effective)
Nemets B, Stahl Z, Belmaker RH. Addition of omega-3 fatty acid to maintenance medication treatment for recurrent unipolar depressive disorder. Am J Psychiatry. 2002;159(3):477-9.	20 adult subjects with depression, RCT crossover design, followed for 4 weeks HRDS as endpoint measure	Significant benefit to HRDS	100% ethyl EPA 2000mg per day.

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Wozniak J, Biederman J, Mick E, Waxmonsky J, Hantsoo L, Best C, Cluette-Brown JE, Laposata M. Omega-3 fatty acid monotherapy for pediatric bipolar disorder: A prospective open-label trial. <i>Eur Neuropsychopharmacol.</i> 2007;17(6-7):440-7.	20 children (ages 6- 17) with bipolar depression followed for 8 weeks, open label design All children YMRS (Young Mania Rating Scale) >15 at baseline	Significant benefit to YMRS, CDRS, CGI	7:1 ratio EPA: DHA Mean 2600mg combined EPA and DHA per day
Nemets H, Nemets B, Apter A, Bracha Z, Belmaker RH. Omega-3 treatment of childhood depression: a controlled, double- blind pilot study. <i>Am J Psychiatry.</i> 2006;163(6):1098-100.	20 children (ages 6 to12), with depression, followed for 16 weeks CDRS, CDI, and CGI as endpoints	Significant benefit to CDRS, CDI, CGI	2:1 ratio EPA: DHA 400mg EPA and 200mg DHA per day
Fontani G, Corradeschi F, Felici A, Alfatti F, Bugarini R, Fiaschi AI, Cerretani D, Montorfano G, Rizzo AM, Berra B. Blood profiles, body fat and mood state in healthy subjects on different diets supplemented with Omega-3 polyunsaturated fatty acids. <i>Eur J Clin Invest.</i> 2005 Aug;35(8):499-507.	33 healthy adult subjects, crossover double blind design, followed for 70 days POMS as endpoint measure regarding mood	Significant benefit to POMS	2:1 ratio of EPA: DHA 1.6g EPA and 0.8g DHA per day
Su KP, Huang SY, Chiu CC, Shen WW. Omega-3 fatty acids in major depressive disorder. A preliminary double-blind, placebo-controlled trial. <i>Eur Neuropsychopharmacol.</i> 2003 Aug;13(4):267-71. Erratum in: <i>Eur Neuropsychopharmacol.</i> 2004 Mar;14(2):173.	28 adult patients with depression, RCT design, followed for 8 weeks HRSD as endpoint measure	Significant benefit to HRSD	2:1 ratio of EPA : DHA 4.4g EPA and 2.2g DHA per day
Chiu CC, Huang SY, Chen CC, Su KP. Omega-3 fatty acids are more beneficial in the depressive phase than in the manic phase in patients with bipolar I disorder. <i>J Clin Psychiatry.</i> 2005 Dec;66(12):1613-4.	15 adult patients with BPD, YMRS > 20, followed for 4 weeks. All subjects received set dose of Valproate @ 20mg/kg/day.	Both FO and placebo significantly improved. No difference b/w groups	1.8:1 ratio of EPA: DHA 2.2g EPA and 1.2g DHA per day
Freeman MP, Hibbeln JR, Wisner KL, Brumbach BH, Watchman M, Gelenberg AJ. Randomized dose-ranging pilot trial of omega-3 fatty acids for postpartum depression. <i>Acta Psychiatr Scand.</i> 2006;113(1):31-5.	16 subjects with post partum depression, open design, followed for 8 weeks EPDS, CGI, HRSD as endpoint measures	Significant improvement to EPDS and HRSD	1.5:1 ratio of EPA: DHA 0.5- 2.8g combined EPA and DHA per day

REFERENCE	DESCRIPTION	OUTCOME	EPA: DHA RATIO
Hallahan B, Hibbeln JR, Davis JM, Garland MR. Omega-3 fatty acid supplementation in patients with recurrent self-harm: Single-centre double-blind randomised controlled trial. <i>Br J Psychiatry</i> . 2007;190:118-122.	49 adult subjects having had a recurrent episode of self harm, RCT design, followed for 12 weeks BDI, HRSD, OAS, IMT/DMT, and PSS as endpoint measures	Significant benefit to suicidality, depression, and daily stresses	1.33:1 ratio EPA: DHA 1.2g EPA and 0.9g DHA per day
Silvers KM, Woolley CC, Hamilton FC, Watts PM, Watson RA. Randomised double-blind placebo-controlled trial of fish oil in the treatment of depression. <i>Prostaglandins Leukot Essent Fatty Acids</i> . 2005;72(3):211-8.	77 adult subjects, RCT design, followed for 12 weeks. HDRS and BDI as endpoint measures.	No significant difference from placebo.	1:4 ratio of EPA: DHA 0.6g EPA and 2.4g DHA per day.
Grenyer BF, Crowe T, Meyer B, Owen AJ, Grigonis-Deane EM, Caputi P, Howe PR. Fish oil supplementation in the treatment of major depression: A randomized double-blind placebo-controlled trial. <i>Prog Neuropsychopharmacol Biol Psychiatry</i> . 2007;31(7):1393-6.	83 patients with Major Depressive Disorder. 16 week intervention. RCT design. HDRS and BDI as endpoint measures.	No significant differences were observed relative to placebo.	1:4 ratio of EPA: DHA 2200mg DHA and 600mg EPA per day.
Llorente AM, Jensen CL, Voigt RG, Fraley JK, Berretta MC, Heird WC. Effect of maternal docosahexaenoic acid supplementation on postpartum depression and information processing. <i>Am J Obstet Gynecol</i> . 2003;188(5):1348-53.	138 pregnant women began intervention immediately upon delivery. BDI (Beck Depression Inventory) and EPDS (Edinburgh Postnatal Depression Scale) served as endpoint measures.	No significant impact from the intervention	100% DHA 200mg DHA per day.
Marangell LB, Suppes T, Ketter TA, Dennehy EB, Zboyan H, Kertz B, Nierenberg A, Calabrese J, Wisniewski SR, Sachs G. Omega-3 fatty acids in bipolar disorder: clinical and research considerations. <i>Prostaglandins Leukot Essent Fatty Acids</i> . 2006 Oct-Nov;75(4-5):315-21.	10 subjects attempting to become pregnant placed on DHA as monotherapy for bipolar depression. Recurrence of manic or depressive symptoms endpoint measure.	No benefit. 33% DHA subjects and 75% placebo subjects completed trial without recurrence of symptoms	100% DHA 2000mg DHA per day
Marangell LB, Martinez JM, Zboyan HA, Kertz B, Kim HF, Puryear LJ. A double-blind, placebo-controlled study of the omega-3 fatty acid docosahexaenoic acid in the treatment of major depression. <i>Am J Psychiatry</i> . 2003;160(5):996-8.	35 patients with depression, RCT design, followed for 6 weeks. MADRS main endpoint measure.	No significant impact.	100% DHA 2000mg DHA per day.

Abbreviations

BDI = Beck Depression Inventory

CDI = Children's Depression Inventory

CDRS = Childhood Depression Rating Scales

CGI = Clinicians Global Impression = severity of illness, improvement

EPDS = Edinburg Postnatal Depression Scale

HRSD = Hamilton Rating Scale for Depression

IMT/DMT = Immediate/ Delayed Memory Tasks (assessment of impulsivity)

MADRS = Montgomery- Asburg Depression Rating Scale

MOAS = Modified Overt Aggression Scale

POMS = Profile of Mood States

PSS = Perceived Stress Scale

OAS = Overt Aggression Scale (assessment of suicidality, aggression, and irritability)

YMRS = Young Mania Rating Scale