



DHA's and Brain Health



Essential Fatty Acids = EFA's

1.
 - a. Necessary for metabolism of chemical mediators in the body
 - b. Cannot be synthesized by the body
 - c. Omega-3 and Omega-6 are the most common
 - d. Omega-3 FA are anti-inflammatory, promotes cardiovascular health, good for the skin, hair and nails. Caution:
 - i. Omega-3 Fatty Acids
 1. ALA (alpha-linolenic acid)
 - a. Flaxseed, canola, wheat germ, nuts
 - b. Can be converted in small amounts to EPA and DHA
 2. EPA (eicosapentaenoic acid)
 - a. Breastmilk, seafood (salmon, herring, halibut, tuna, sardines)
 3. DHA (docosahexaenoic acid)
 - a. Breastmilk, seafood (salmon, herring, halibut, tuna, sardines)
 - ii. Women at risk for preterm delivery who were supplemented with 2.7g/day of fish oil were 50% less likely to deliver preterm
 - iii. Women whose diets were high in fish or took a fish oil supplement were less likely to have pre-eclampsia
 - iv. EFA supplementation reduced major depressive disorders in pregnancy (3.4g/day)
 - v. Infants born to mothers who supplemented with 3.7g/day of fish oil had lower rates of atopy and less severe disease at 2 years of age
2. DHA
 - a. Most common FA in the brain
 - b. Anti-inflammatory
 - c. Immunomodulating
 - d. Found in Fish and Fish Oil
 - e. Benefits
 - i. Increases in IQ up to age 4
 - ii. Increased hand-eye coordination at age 2
 - iii. Improved attention span

Resources:

Kansas State University, *Facts About Omega-3s*, Accessed 8/28/09 at <http://www.ksre.ksu.edu/humannutrition/whatfact.htm>
Arch Dis Child Fetal Neonatal Ed. 2008;93:F45-F50
Ann Epidemiol. 2007 Sep;17(9):663-8.
J Clin Psychiatry. 2008 Apr;69(4):644-51.
Clin Sci (Lond). 2007 Nov;113(10):409-16.

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