

UNC Center for Excellence in Community Mental Health

We Know *omega-3 fatty acids are good for us and we should eat more of them.*

There are three types of omega-3 fatty acids: DHA, EPA, ALA

- DHA and EPA are found in algae and fish
- ALA is found in many oils, for example canola oil

Consuming ~1000 mg/day of DHA/EPA (the amount often found in 2000-3000 mg fish oil capsules) has been shown to significantly:

- Decrease inflammation
- Cut cholesterol and triglycerides
- Improve blood flow
- Reduce weight in over-weight people
- Ease symptoms of rheumatoid arthritis
- Lower blood pressure, as well as the risk of heart disease and stroke

Research Suggests

- 1000-2000 mg/day of EPA may improve psychosis and negative symptoms in schizophrenia (some indication, but not proven)
- 1000-9000 mg/day of EPA and DHA improve symptoms in major depression and bipolar depression
- 700 mg/day EPA plus 480 mg/day of EPA (2000 mg fish oil) may reduce the likelihood that psychosis develops in young people with early warning signs of a psychotic illness
- DHA and EPA may improve learning and attention in children with academic difficulties

Animal studies suggest that omega-3 fatty acids may protect against developing Parkinson's disease, Alzheimer's disease, Huntington's disease, and may minimize symptoms of brain injury. Clinical trials for many brain disorders are underway (see clinicaltrials.gov).

For more details about the possible health benefits of omega-3 fatty acids see http://en.wikipedia.org/wiki/Omega-3_fatty_acid and the article: Freeman MP, Hibbeln JR, Wisner KL, et al. (2006) Omega-3 fatty acids: evidence basis for treatment and future research in psychiatry. *J Clin Psychiatry.* 2006;67(12):1954-67

Western diets are very high in another type of fatty acid, omega-6, that includes LA, AA, and GLA. The average American diet contains a ratio of omega-6 to omega-3 of about 20 to 1. More research needs to be done, but current studies indicate the ideal ratio may be as low as 2 to 1! So for optimal health, we need to get more omega-3 fatty acids in our diets.

Omega-3 Fatty Acids and Brain Health

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How to Get More Omega-3 Fatty Acids in Our Diets

- Eat more foods containing a healthy ratio of omega-6 to omega-3 (see table below).
- Shoot to eat 2000-4000 mg/day of omega-3 fatty acids.
- Consider including at least 1000 mg/day of EPA/DHA omega-3 fatty acids. Most people will need to take fish oil or algae oil supplements to get enough. Supplements are available at most health food stores.
- CAUTION: As with any supplement, there can be too much of a good thing, so don't overdo it.

The table below gives the amount of omega-3 and omega-6 fatty acids in many foods.

Foods <i>Those in bold have a healthy Omega-6: Omega-3 ratio</i>	EPA/DHA Omega-3	Total Omega-3	Omega-6	Omega-6: Omega-3 ratio
Salmon, wild caught (3 oz)	1840	1840	598	0.3
Cod (3 oz)	158	158	36	0.2
Trout (3 oz)	404	408	75	0.2
Shrimp (3 oz)	267	277	18	0.1
Coconut oil (1 Tablespoon)	0	0	245	NA
Flaxseed oil (1 Tablespoon)	0	7249	1727	0.2
Olive oil (1 Tablespoon)	0	40	1381	34.5
Corn oil (1 Tablespoon)	0	158	7278	46.1
Cottonseed oil (1 Tablespoon)	0	27	7004	259.4
Canola oil (1 Tablespoon)	0	1279	2661	2.1
Soybean oil (1 Tablespoon)	0	923	6929	7.5
Margarine (1 Tablespoon) (loaded w/trans fats that are extremely bad for you)	0	274	3115	11.4
Butter (1 Tablespoon)	0	45	387	8.6
Cheese (1 oz, about 1 slice)	0	103	164	1.6
Whole milk (8 oz)	0	183	293	1.6
Yogurt, whole milk	0	66	159	2.4
Walnuts (7 whole or 14 half walnuts, about a handful)	0	2574	10799	4.2
Almonds (23 nuts, about a handful)	0	2	3419	NA
1 egg	20	37	572	15.5
1 "omega-3" egg	58	170	572	3.4
Beef (3 oz)	0	280	96	0.3
Chicken (3 oz)	42	98	966	9.9

[Source: <http://www.nal.usda.gov/fnic/foodcomp/search/>]