

Omega-3s: Diet and Supplementation

By Ryan Harrison, MA, BCIH

Remember when fats were considered “bad” and a wide range of processed foods started popping up with “fat free!” on their labels? Turns out that was a case of misinformation gone wild. The truth is, some dietary fats are actually *essential* not only for optimal health, but for *life*. In fact, in nutrition-speak, that’s exactly what the term “essential” means when referring to nutrients: they are necessary for your body to live and need to be taken in via food or drink. So when you read about “essential fatty acids,” (also known as “EFAs,”) it’s good to remember that we’re talking about nutrients that you definitely need to live and to thrive.

There are different kinds of EFAs, however, and, given the standard American diet, some have proven to be more healthful than others. The EFAs that you are most likely to come across are omega-3s and omega-6s. Both are essential, and ideally, we would get a 1:1 or 2:1 ratio of omega-6s to omega-3s. Unfortunately, the average American tends to get far more omega-6s than omega-3s, with a ratio somewhere between 10:1 and 40:1.¹ Experts suggest that our bodies were not meant to function on such a poor ratio, and this imbalance can result in a host of health problems and chronic diseases such as heart disease, hypertension, diabetes, obesity, premature aging, and even some forms of cancer.^{2,3}

The good news is that there are ways to increase our intake of omega-3s in order to reestablish a proper, healthy ratio of EFAs. This can be done in two ways: through consuming foods that are high in omega-3 fatty acids, and through proper supplementation.

A short science lesson: The omega-3 fatty acids include *alpha-linolenic acid* (ALA), *eicosapentaenoic acid* (EPA), and *docosahexaenoic acid* (DHA). Of these three, the most easily utilized and significant fatty acids are EPA and DHA. You get these most easily via fish and fish oils. ALA is most commonly found in plant sources and when consumed, ALA can be converted to EPA and DHA in the body, but only at a very low ratio, and probably varying according to age, gender and other factors.^{4,5} Indeed, research has indicated that it can take as many as 3-4 *grams* of ALA for your body to make a scant 300 *milligrams* of EPA out of it.⁶ Accordingly, the majority of research conducted on omega-3s has focused on the ability of EPA and DHA to influence health. Further, while it is possible to find ALA in supplement form, the vast majority of omega-3 supplements feature EPA and DHA to begin with, which saves your body a metabolic step toward the use of these vital nutrients, and saves your pocketbook from having to buy large quantities of less-effective ALA-containing products.

At A Glance

- Essential fatty acids (EFAs) are vital for optimal health as well as for life.
- Omega-6s and Omega-3s are both EFAs, but most people get far more omega-6s than omega-3s, which can lead to a number of health complaints.
- Increasing daily intake of omega-3s helps correct an EFA imbalance and can be accomplished by eating certain foods and using supplements.
- EPA and DHA are the most vital omega-3 fatty acids.
- EPA and DHA are most commonly found in cold-water fish and other sea food.
- Supplementation with omega-3 fish oils helps ensure potency and purity.

Foods that include ALA include flaxseed, walnuts, hemp seed, soy beans, and some dark leafy green vegetables.⁷ You'd have to eat a lot of these foods to get therapeutic amounts of EPA from them. Foods that will immediately give you the EPA and DHA fatty acids that your body needs are mostly cold-water fish such as salmon, tuna, halibut, herring, and shrimp.⁸

Here's the catch: trying to meet your EFA needs through diet alone can be difficult. Many people find it hard to steer clear of omega-6 foods (such as those prepared with vegetable oils and also some lean meats such as chicken and turkey). To further complicate matters, getting your omega-3s from food sources can be tricky: on the one hand, as described above, you have to buy and consume more when you try to get them from plant sources (though if you do, you should be sure your sources are organic); and on the other hand, most seafood available for purchase today – whether at the market or in a restaurant – is likely to be contaminated with any number of toxins, including unsafe levels of mercury, arsenic, lead, and PCBs (chemicals that can have serious long-term health implications).^{9,10} In fact, even the U.S. Environmental Protection Agency and Food and Drug Administration suggest that some populations should only eat fish once or twice a week, to minimize risk of ingesting toxins.^{11,12,13} Finally, when you're trying to obtain omega-3s via food, how do you know how much EPA and DHA you're actually getting? Omega-3s fatty acids can be easily lost in cooking or processing, and there aren't any labels on seafood to tell you how many omega-3 EFAs you're getting and in what measure.

And that is why supplementation is such an important idea.

In earlier times, it was easier to eat well and to get all our essential nutrients from the plants and animals that grew around us. Today, what grow around us are restaurants, fast-food chains, coffee shops, and the like. Our emergent culture has, in a way, created a need for proper supplementation: since the majority of us don't eat the foods that nature intended to provide us with the essential nutrients we need, one of the best ways to be sure we're getting these vital nutrients – including EFAs – is to take nutritional supplements.

Most omega-3 supplements will be made with fish oil, which is naturally high in EPA and DHA omega-3 fatty acids. At the same time, it's important to realize that not all fish oil supplements are equally good for your health. One study that tested 10 different varieties of fish oil capsules for purity found that each and every one of them contained dangerous chemical compounds.¹⁴ And some people, whether it's trivial or not, don't like the "fishy aftertaste" that can occur when some fish-oil supplements are used.

Fortunately, there are omega-3 fish oil supplements available today that meet both these problems head on. The only fish oil supplements that you should take are those that have gone through some kind of toxin-removing filtration, ensuring purity. You can recognize them by finding the terms "filtered" or "distilled" on the supplement's label. If it isn't on the label, chances are it isn't a toxin-free omega-3 supplement.

And if you're one of those people who doesn't like the fishy aftertaste of fish oil supplements, look for one that is labeled "enteric coated." This means it has a special coating which ensures that the capsules don't dissolve and release the fish oil until they are past your stomach and in your intestines, where they'll do the most good anyway.

Finally, be sure that your omega-3 supplement delivers significant amounts of both EPA and DHA fatty acids. While there is no official RDA for omega-3 EFAs at this point, the FDA has stated that intakes up to 3,000 mg per day are generally recognized as safe,¹⁵ and many studies confirm positive health effects within a wide range of 1,000 mg–10,000 mg per day.^{16,17} Consult a qualified health practitioner to determine what range of supplementation will best suit your particular omega-3 needs, and be sure that whatever supplement you use, it clearly states how much EPA and DHA is in each dose, so you know how many capsules to take.

¹ Kiefer, D. (2003). Omega-3 fatty acids vital to a longer, healthier life. *Life Extension Magazine*, Retrieved from http://www.lef.org/magazine/mag2003/dec2003_report_omega_01.htm

² Larsen, H. R. (2002). Omega-3 oils: The essential nutrients, Retrieved from <http://articles.mercola.com/sites/articles/archive/2002/03/20/omega3-oils.aspx>

³ Omega-3 fatty acids. (n.d.). *The World's Healthiest Foods*, Retrieved from <http://www.whfoods.com/genpage.php?tname=nutrient&dbid=84>

⁴ Mercola, J. (2007). Beware of misleading omega-3 claims. Retrieved from <http://articles.mercola.com/sites/articles/archive/2007/10/20/beware-of-misleading-omega-3-claims.aspx>

⁵ Kiefer, D. (2003). Omega-3 fatty acids vital to a longer, healthier life. *Life Extension Magazine*, Retrieved from http://www.lef.org/magazine/mag2003/dec2003_report_omega_01.htm

⁶ Mercola, D. (2002). Flax is not the best omega-3 fat. Retrieved from <http://articles.mercola.com/sites/articles/archive/2002/04/03/evolution.aspx>

⁷ Omega-3 fatty acids. (n.d.). *The World's Healthiest Foods*, Retrieved from <http://www.whfoods.com/genpage.php?tname=nutrient&dbid=84>

⁸ Omega-3 fatty acids. (n.d.). *The World's Healthiest Foods*, Retrieved from <http://www.whfoods.com/genpage.php?tname=nutrient&dbid=84>

⁹ *Omega-3 Fatty Acids*, (2008). Deerfield Beach, FL: Vibrant Life Publishing, Inc.

¹⁰ Bruce, F. D. (2005). Are fish oil supplements safer than eating fish? *Life Extension Magazine*, Retrieved from http://www.lef.org/magazine/mag2005/oct2005_report_fishoil_01.htm

¹¹ Fish: Friend or foe? (n.d.). *The Nutrition Source*, Harvard School of Public Health, Retrieved from <http://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/fish/index.html>

¹² Ignelzi, R. J. (2007). Eating fish: There's a catch. *Environmental Working Group*, Retrieved from <http://www.ewg.org/node/21527>

¹³ Why you need more omega-3 fatty acids. (2006). *Life Extension Magazine*, Retrieved from http://www.lef.org/magazine/mag2006/sep2006_report_omega_01.htm

¹⁴ Gunter, R. (2010). How tainted fish oil supplements will impact your health. *Associated Content*, Retrieved from http://www.associatedcontent.com/article/2762755/how_tainted_fish_oil_supplements_will.html

¹⁵ Kiefer, D. (2003). Omega-3 fatty acids vital to a longer, healthier life. *Life Extension Magazine*, Retrieved from http://www.lef.org/magazine/mag2003/dec2003_report_omega_01.htm

¹⁶ Kiefer, D. (2003). Omega-3 fatty acids vital to a longer, healthier life. *Life Extension Magazine*, Retrieved from http://www.lef.org/magazine/mag2003/dec2003_report_omega_01.htm

¹⁷ Mercola, J. (2002). Omega-3 oils: The essential nutrients. Retrieved from <http://articles.mercola.com/sites/articles/archive/2002/03/20/omega3-oils.aspx>