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More on Omega-3s

If you ask me a question about virtually any health condition, I'm almost always going to recommend omega-3 fatty acids. The research continues to accumulate on the benefits of getting them from foods such as cold-water fish and nuts or from dietary supplements. I've come across three studies on the benefits of omega-3 fatty acids I thought you'd find interesting.

Infant Formula

In a review article on infant formula, the author talked about the components that should be included if a woman can't breastfeed during the first six months of the infant's life (1). The USFDA regulates the components of infant formula but does not dictate the source. Formula must get 30% of the total calories from fat; of that 30%, 2.7% of the calories must come from omega-6 linoleic acid, but the other fats can be any type. Adding omega-3 fatty acids to infant formula can have a positive benefit on visual attention, learning, and also benefit the immune system. If you're a mom who can't breastfeed, be sure to select an infant formula that contains both omega-6 and omega-3 fatty acids. The amounts vary, but they should be in there.

Gene Expression

We have millions of genes that control various functions in our bodies. Not all are expressed (turned on) all the time; most only kick in when they're needed. Because of our low consumption of omega-3 fatty acids combined with an excess of poor-quality omega-6 fatty acids, genes that contribute to inflammation produce proinflammatory chemicals called cytokines. Researchers had healthy subjects take fish oil for four weeks while measuring gene expression in the subjects' white blood cells (2); they found that the genes which control the inflammatory response were down-regulated (turned off) after just four weeks of taking fish-oil supplements. The net effect was a decrease in inflammation.

C-Reactive Protein (CRP)

Elevated CRP levels indicate a state of inflammation in the body. High triglycerides are usually the first step in the path that leads to type-2 diabetes. In a small study of men with high triglyceride levels, researchers had them take 7.5 grams of DHA fish oil every day for 90 days and periodically measured CRP and other markers of inflammation (3). While it took the entire 90 days of supplementation, CRP was reduced by 15% and other measures of inflammation were reduced as well. The lipid composition of the blood cells that were tested also changed—more omega-3s were found in cell membranes. Regular use of DHA changed the cell membranes and thus changed the way they functioned resulting in less inflammation.

The Bottom Line

These last two studies are small, but when combined with the review article on omega-3's benefits for infants, research clearly indicates we need more omega-3 fatty acids over our entire lives—from Day One. The upper limit set by the Institutes of Medicine is 5 grams per day. Some day we may find out it should be even higher, but 3 to 5 grams is a desirable target for adults and 500 mg to 1 g for children. Talk to your physician about what amount

may be best for you given your present state of health. Whether you get the omega-3s from fish, nuts, dietary supplements, or a combination of all sources, this is one nutrient that you need on a regular basis.

For more on CRP and why you should get it tested, get a copy of **Dr. Chet's Top Ten Tips**. Remember, the reduced price for the download version ends at noon Sunday, so this is a great time to get your copy.

What are you prepared to do today?

Dr. Chet

References:

1. Meyer R. Infant feed first year. 1: Feeding practices in the first six months of life. J Fam Healthcare. 2009;19(1):13-6.
2. Weaver KL, et al. Effect of dietary fatty acids on inflammatory gene expression in healthy humans. J Biol Chem. 2009 Jun 5;284(23):15400-7
3. Kelley DS, et al. DHA supplementation decreases serum C-reactive protein and other markers of inflammation in hypertriglyceridemic men. J Nutr. 2009 Mar;139(3):495-501.

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