

Omega-3s and Dry Eyes?



We are what we eat . . .

We have all heard the phrase, “we are what we eat.” Although we might laugh at this notion, recent studies have shown that diet can affect our eyes. In particular, scientific evidence suggests that a diet rich in omega-3 fatty acids may be helpful for dry eyes.

Essential Fatty Acids

Omega-3 fatty acids are one group of essential fatty acids, also referred to as polyunsaturated fats. “Essential” means that our body does not make them and therefore we must include them in our diet to stay healthy. Omega-3s have been shown to have many health benefits, however, it has been estimated that over 80% of Americans are deficient in omega-3s. The good sources of polyunsaturated omega-3s are cold-water fish, flaxseed, black currant seed oil and borage seed oil. Fish contain the omega-3 fatty acids known as DHA and EPA, while flaxseed (and other oils) contains the omega-3 fatty acids known as alpha-linolenic acid (ALA) and gamma-linolenic acid (GLA).

Another group of essential fatty acids are the omega-6s, commonly referred to as saturated fats. Although they are important, eating too many foods with saturated fats can be unhealthy. Unfortunately, most people consume too many omega-6 fatty acids. These are the fatty acids found in beef, dairy products, vegetable cooking oils, and vegetable shortenings (i.e. candy, cookies, potato chips, fast-food, snacks etc.).

Nutritionists consider a good diet to have a ratio of omega-3s to omega-6s of 1 to 2 (or optimally an equal balance of the two). Unfortunately, for most individuals the ratio of omega-3s to omega-6s has been estimated to be as low as 1 to 10. As a result, our unbalanced intake of fatty acids may leave us at risk for health problems like elevated cholesterol, high blood pressure, arthritis, and even dry eyes.

Clinical studies suggest that omega-3 fatty acids may play a role in decreasing dry eyes by decreasing inflammation of the eyelid tissue, reducing cellular destruction, and increasing tear secretion. More specifically, our eyelids have specialized oil glands known as the meibomian glands. These glands use essential fatty acids to synthesize oil that protects our tears from evaporating. If our intake of essential fatty acids is not balanced, we may not have optimal meibomian gland function. Recent studies have suggested that the intake of omega-3s (especially EPA and DHA) may improve the quality of the meibomian gland oil.

Where do we get omega-3s and how much do we need?



The two best sources of omega-3s are dark, oily, cold-water fish (i.e., salmon, tuna, and swordfish) and seed oils (i.e., flaxseed, black current seed, and borage seed). Most sources, including the American Heart Association, recommend 2-3 servings of fish per week or a fish oil supplement containing 500 to 1500mg/day of EPA/DHA. Since there have been some health concerns related to mercury intake by eating too much fish, the seed oils (containing ALA and GLA) appear to be a popular alternative choice for omega-3s. For the seed oil forms of omega-3s (ALA and GLA), it appears that 1000 to 3000mg/day may be beneficial. Other good sources of omega-3s include walnuts, pumpkin seeds, tofu, canola oil, soy oil, as well as leafy green vegetables like spinach and broccoli. **For dry eye treatment in particular, most sources recommend a minimum of 1000 mg/day of EPA/DHA from fish oil or in combination with seed oils containing ALA/GLA fatty acids.** In addition, eating a well-balanced diet and drinking plenty of water can reduce dry eye symptoms. Two popular over-the-counter oral supplements specifically formulated for dry eyes are *MaxiTears* by MedOp and *TheTears Nutrition* by Advanced Vision Research.

Are there side-effects?

In general, it is believed that consuming omega-3 fatty acids is very safe. However, if you decide to take omega-3 supplements, be sure to check with your doctor especially if you are taking blood thinner medication.

For more information, please contact our office or visit the following helpful websites
www.theratears.com or www.MedoOp.com