Omega-3 and Childhood Asthma

Note: *The following letter was written in response to a study. Thorax published on polyunsaturated fats and asthma. The letter below was published in the March 2002 issue of Thorax. Researchers found a high intake of dietary polyunsaturated fats as a risk factor for asthma in preschool children. They then suggest that reducing the consumption of these fats represent an intervention that has great potential for lowering asthma rates. However, this conclusion is in error, since it is not the total polyunsaturated fat content of the diet, but the composition of the polyunsaturated fats that is likely causing adverse health effects. The problem most likely stems from the imbalance of Omega-6 to Omega-3 Essential Fatty Acids.*

It is estimated that throughout much of human existence, we ate diets that contained Omega-6 to Omega-3 ratios of approximately **2:1.** However, today in the US, the ratio is estimated to be **greater than 10:1**, although some have estimated that it is actually more like 20:1 to 50:1 (1).

It is likely that the increased poly-intake seen in preschool asthmatics is actually just a marker for an even greater imbalance in this ratio. In Japan, the Omega-6 to Omega-3 ratio in the typical diet is about 4:1, several-fold better than the US. One epidemiological study found that the childhood asthma rate in Tokyo is 0.7% as compared to a worldwide average of roughly 5%.

And there are *confounding factors* that could contribute to higher childhood asthma rates in Japan. For example, because a greater percentage of Japanese live in urban settings, the average air quality they are exposed to is lower. In addition, smoking is much more prevalent in Japan, which means more second-hand smoke exposure for children.

Several studies support the assertion that greater consumption of oily fish, which contain high amounts of n-3, may protect against childhood asthma and can improve lung function.

In addition to a decrease in fish consumption, there is another, less widely acknowledged factor in the large imbalance in the intake of fatty acids today. Modern livestock management techniques, which rely heavily on the use of grain feedlots, have caused great reductions in the Omega 3 composition of our commercial meat supply. When cattle are allowed to graze freely in the warmer months, as they have historically always done, their fatty acid composition is favorably enhanced.

While improving the fatty acid profile of the meat supply may not fully compensate for the many shortcomings of the modern western diet, it would certainly be a step in the right direction. Considering the fact that it is estimated that a 4-fold increase in fish consumption would be required to bring n-3 fatty acid consumption to up to recommended levels, any other food sources would be of great value.

The researchers examined the fat composition of nearly 250 women with non-metastatic breast cancer. Guess what they found? Women who had the most Omega-3, and least Omega-6, had a 70% reduction in breast cancer.

There is no question that breast milk is best, but there are literally millions of children who aren't on breast milk,

and now their lives will be positively affected because of Dr. Simopoulos' decision to facilitate this intervention.

Omega-3 Essential Fatty Acids should be considered more than just a supplement, and more as a whole food that could replace fish. Please remember that nearly all fish are contaminated with mercury and should ideally be avoided. Therefore, you will want to identify a good, clean source of fish oil - or consider an Omega-3 from plant sources.

A theory is that the warmer the weather, the less Omega-3 fats you need. There are no clinical studies to support this, but even Dr. Simopoulos, who is one of the top Omega-3 experts in the world, found this concept intriguing and could not provide a powerful counter argument.

When the UV-B decreases (about September in Chicago) cod liver oil should be resumed. It has the benefit of providing you with Vitamins D and A. A reasonable dose for cod liver oil is one teaspoon for every 30-40 pounds of body weight. If you use cod liver oil during the summer you will need to be careful of Vitamin D toxicity.

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