

## Why the Fuss about Fish?

Over the last few years there has been an explosion of interest in the health benefits of fish oil. Why?

### What is Omega 3?

There are two main components of Omega 3. These are EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid). Each of these components of fish oil is a long chain unsaturated fat, which is not produced within our body, so needs to be consumed from our diet. Omega 3 fatty acids provide the building blocks for every cell in our body.

There is an important relationship between Omega 3 and Omega 6. In the Standard Australian Diet, there exists a higher intake of the latter, throwing the ideal ratio of 1:1 to something more like 1:15. This has been attributed to the fact that most Australians have a high intake of vegetable oils, saturated and trans fats and low intake of oily fish. This is one of the many reasons why we need to increase our fish and fish oil consumption.

### Dietary Sources of Omega Oils

Omega 3	Omega 6
<ul style="list-style-type: none"> <li>• Fish               <ul style="list-style-type: none"> <li>○ Salmon</li> <li>○ Sardines</li> <li>○ Herring</li> <li>○ Mackerel</li> <li>○ Trout</li> <li>○ Snapper</li> <li>○ Anchovies</li> <li>○ Tuna</li> </ul> </li> <li>• Flax Seeds/Oil (Linseeds)</li> <li>• Chia Seeds</li> <li>• Walnuts</li> <li>• Beef (grass fed, not grain fed)</li> <li>• Chicken (greens fed, not soy or corn fed)</li> <li>• Dairy foods (from organic grass-fed animals)</li> </ul>	<ul style="list-style-type: none"> <li>• Vegetable Oils               <ul style="list-style-type: none"> <li>○ Corn Oil</li> <li>○ Borage Oil</li> <li>○ Evening Primrose Oil</li> <li>○ Olive Oil</li> <li>○ Palm Oil</li> <li>○ Safflower Oil</li> <li>○ Soybean Oil</li> <li>○ Sunflower Oil</li> </ul> </li> <li>• Eggs (from grain fed chickens)</li> <li>• Poultry (from grain fed chickens)</li> <li>• Whole grains</li> <li>• Pumpkin Seeds (Pepitas)</li> </ul>

### What are the Health Benefits?

- **Cardiovascular Disease:** Research has found that there is a relationship between the amount of fish that is eaten, and the incidence of death from coronary heart disease. If you consume fish once per week, it is thought your risk is reduced by 15% (He et al, 2004). For every 20g per day consumed, your risk falls by 7%. Research on omega 3 supplementation has also produced positive results in this area, showing that even with low dose supplementation, the risk of death due to Coronary Heart Disease can be significantly reduced.
- **Cholesterol:** There are different types of cholesterol. The “good” cholesterol levels (HDL levels) can be increased by fish oil, and the “bad” cholesterol levels (VLDL and LDL levels) decreased. This is thought to be one of the reasons for the positive effects of fish oil in reducing death due to cardiovascular disease.

- **Inflammation/Arthritis:** Inflammatory diseases such as arthritis, certain skin conditions, and inflammatory bowel disease can be greatly benefited by fish oils. In 2007 a large study asserted that the use of fish oil was found to reduce pain in patients with arthritis to a point where their use of other anti-inflammatory drugs decreased (Goldberg & Katz, 2007). This is because the EPA component of fish oil steps in and stops the inflammatory cascade in our bodies.
- **Preconception/Pregnancy/Infants/Children:** The omega 3 components DHA and EPA, account for up to 20% of adult brain weight. This gives us an indication of how vital it is to the developing brain of a foetus and child. As such fish oil consumption during these developmental periods is essential, in particular the DHA content is important for this.
- **Learning/Behavioural Disorders:** Increasing amounts of research are pointing towards the fact that supplementation with fish oil has positive results for children or adults with learning and/or behavioural disorders.
- **Memory/Cognitive Function:** Studies have found that regular fish consumption can reduce the risk of dementia by up to 70%. It has even been found to reduce the progression of mild dementia, after the process has begun. The brains of patients with Alzheimer's disease have been found to have very low levels of DHA. All of these studies have led to fish oil being highly indicated for the prevention and combined treatment of memory and cognitive function disorders.
- **Mood Disorders:** Numerous studies have been conducted indicating that the use of fish oil is beneficial for patients with depression, anxiety and schizophrenia. It is even more indicated in patients who have depression associated with dementia or cognitive decline.

### How much should I take?

Interestingly EPA and DHA although both part of the "omega 3 family" have been found to have different health benefits. If you look on your fish oil supplement container you should see the amount of each written separately.

On most over-the-counter supplements there is (per Capsule):

- EPA – 180mg
- DHA- 120mg
- (Total: 300mg)

However research conducted recently, and endorsed by Arthritis Australia suggests that a combined total of EPA and DHA equalling 2.7g is a daily therapeutic dose (for inflammation).

This is equivalent to:

- 1.2kg Salmon
- 1.1kg Tuna
- 9 x average Omega 3 Capsules
- 1 teaspoon of concentrated fish oil

This indicates that the average person taking fish oil supplements is well below the therapeutic dose (dose required to see results). Adding to this is the fact that different conditions call for differing emphasis on either EPA or DHA. A high level of EPA is more beneficial for inflammatory conditions, and DHA for conditions relating to brain function, and combinations are used to have a broader action. However your Naturopath is the best person to talk to regarding what is most suitable to your situation.

As there are numerous products available over-the-counter at health food shops, pharmacies and supermarkets, it is important to understand that the quality and concentration of these oils differ. Always check to see that the fish oil has been tested for heavy metals. Again, speak to your Naturopath about what brands are of a higher quality.

The information contained in this article is to be used for educational purposes only. Before using fish oil supplements, especially at high dose levels, it is advised that you speak to your Naturopath. Individual patients' requirements must be assessed according to factors such as age, weight, height, dietary intake, medical condition and other concurrent medication.

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