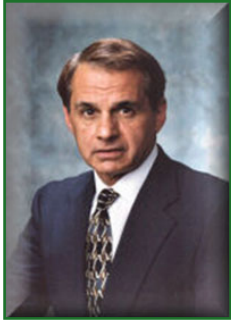




HEALTHCARE HOTSHOTS ADVICE



## Facts about Fish Oil, Inflammation, and Disease Prevention

[By Joseph C. Maroon, MD]

Facts:

- Inflammation is normally a protective physiological mechanism, but many factors common in Western society, including our diet, can cause it to become a long-term condition with dire, disease-causing consequences.

- Pharmacological anti-inflammatory drugs are effective in reducing inflammation but have potentially lethal side effects, rendering them impractical for use on a long-term basis.
- Omega-3 essential fatty acids may be at least as effective as pharmacological anti-inflammatories, and they are much safer.
- Fish oil is the best source of these omega-3 essential fatty acids.
- Hundreds of clinical trials support the efficacy of fish oil's omega-3 essential fatty acids in preventing, mitigating, and remedying an incredible range of health conditions.
- All fish oil is not the same. Finding a high-quality pure and potent product is imperative, as is taking the appropriate amount.

With these six facts as a starting point, you now have an idea that we believe that fish oil is an essential dietary supplement that has been shown to have tremendous health benefits. Rarely does a day go by without a new report touting the benefits of fish oil. These studies, once digested, all have similar conclusions: fish oil supplements and the omega-3 fatty acids they contain are essential to the body and work primarily by reducing the level of disease causing inflammation in our bodies.

### Understanding Inflammation

Although the inflammatory response helps the body protect and heal itself, over the long term, inflammation can produce chronic pain, breakdown of cartilage and muscle, increased blood clotting, destruction of the lining of blood vessels, and it may cause genetic changes leading to various cancers. In fact, recent medical research now confirms that the root cause of many chronic diseases, ranging from arthritis, heart disease, and cancer to attention-deficit hyperactivity disorder, asthma, eczema, and depression, is inflammation.

### Treating Inflammation

Billions of dollars are spent each year by pharmaceutical companies in an attempt to understand the biochemistry of inflammation and block it. The discovery of drugs like ibuprofen has resulted in pain relief for millions suffering from pain. The discovery was so wildly popular that in 2003, the U.S. expenditure for nonsteroidal anti-inflammatories (NSAIDs) such as ibuprofen, aspirin, steroids, Aleve, Bextra, Vioxx, and Celebrex was approximately \$20 billion.

Unfortunately, long-term use studies now show that many of these drugs can greatly increase the risk of stomach irritation, ulcers, and potentially lethal gastric hemorrhaging. The public now is seeking an alternative product that is both effective and safe for long-term use. The product many are turning to is omega-3 fatty acids, found in fish-oil supplements, as a way to lower

levels of inflammation and thereby prevent the diseases associated with it.

### How Do Omega-3s Work?

Because every cell in the body has a cell membrane made mostly out of omega-3 and omega-6 fatty acids (FA), fish oil (omega-3 FA) has the potential to affect every organ system in the body. The fact is, our bodies do not produce fatty acids; they must be consumed in our diets. Therefore, a dietary deficiency of omega-3 FA can have profound adverse health effects.

Additionally, if a diet is very high in omega-6 FAs, such as those found in Western (American)-style diets, omega-6 FAs can displace the omega-3 FAs on our cell membranes, and this can also have adverse health effects. The issue here is that not only do fatty acids help to make up the structure of our cell membranes, they are also used by the body on a cellular level to produce localized "hormone-like" compounds that can act to increase or decrease the amount of inflammation within our bodies.

Omega-3 FAs are associated with these anti-inflammatory compounds, and omega-6 FAs are associated with inflammatory compounds. Many researchers now believe that the relative deficiency of omega-3 FAs in our diet, compared to such high consumption of omega-6 FAs, may account for the increasing rates of ischemic heart disease and stroke in Western societies, since vascular disease is known to be associated with chronic high levels of inflammation.



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**Which Fish Oil is Best?**

Not all fish oil supplements are the same due to the types of fish the oil is extracted from, the processing techniques, and the storage conditions. As is the case with most consumer items, you generally get what you pay for. The major manufacturing concerns that separate high-quality supplements from the rest of the pack are purity, potency, and oxidation. Because the dietary-supplement industry is not uniform in these issues, products range widely in these areas. In general, warehouse or discounters don't have the highest-quality products. Health stores often have the personnel and time to expand the differences, but, in general, stick to high-end products that are concentrated and indicate proper purity and quality testing.

Also, if the bottle of capsules smells of fish when you open it, it may be rancid. Just like any high-quality olive oil, it must be

protected from light, high heat, and long-time exposure to air, which will oxidize it and make it rancid.

The dose requirements of fish oil vary by age, health status, and other omega-3 intake, but in general, we don't recommend taking more than 3 gms of EPA/DHA (the most-active form of omega-3 FAs) without consultation with your healthcare provider. Other restrictions would be if you are allergic or on blood thinners, since fish oil can also cause some "blood thinning" in very high doses.

**How to Learn More**

Having used fish oil on our own patients and having seen and heard their improvements in pain, mobility, hair and skin qualities, and moods, we are convinced that fish oil is essential to good health. For these reasons, we have recently completed a book on the benefits of fish oil entitled *Fish Oil: The*

*Natural Anti-Inflammatory*. Please go to [www.inflammationsolutions.com](http://www.inflammationsolutions.com), or call (866) 463-5686 to learn more.

**About the Author**

Dr. Joseph Maroon, a board certified neurosurgeon at the University of Pittsburgh and team physician to the Pittsburgh Steelers, has become one of the nation's leading advocates of fish oil and has recently authored the book *Fish Oil: The Natural Anti-inflammatory*. For more information, visit [www.inflammationsolutions.com](http://www.inflammationsolutions.com).

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