

Top 10 Things to Know About Omega-3 Fatty Acids

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Good Things Come in
OMEGA-3s



Omega-3s have gained a lot of attention and for good reason! This family of fatty acids contain essential dietary nutrients that your body needs to function properly. However, chances are you aren't getting enough!

Health experts around the globe agree that the modern diet is critically lacking in Omega-3 fatty acids, which may be why we are seeing more incidence of chronic inflammatory diseases and other health challenges.

To help support your thirst for knowledge, we're offering a top 10 list of things you should know about Omega-3s and human health.

1. Omega-3 Fatty Acids are Essential

An essential nutrient is one in which the body requires but cannot make on its own - the nutrient must be obtained through the diet. When it comes to omega-3 fatty acids, ALA is classified as essential (1); however, EPA and DHA are not essential because they can be

synthesized in the body from ALA. Regardless, each of these Omega-3 fatty acids play important roles in ensuring your body remains healthy and functioning at its best.

2. Omega-3s are Found in the Fat

The Omega-3 family of fatty acids can be found in the fat of various plant and animal sources. The term “Omega-3” comes from the structure of the fatty acid molecules themselves, with the first double-bond being on the third carbon from the tail-end (Omega) of the molecule. The most well-known of these fatty acids include alpha-linolenic acid (ALA), eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). In order to get enough, you will need to push your aversions to dietary fat aside.

3. You Aren't Getting Enough Omega-3

The consumption of Omega-3 fatty acids is far below the recommended dietary inclusions, especially in Western Countries (2). The consequences of low dietary intake of Omega-3 fatty acids are increased risk of chronic diseases, such as heart disease, metabolic syndrome and mental health challenges. The World Health Organization recommends an intake level of total Omega-3 fatty acids between 1.5g and 2g per day for adults originating from nutrient-dense food sources (3, 4).

4. Omega-3 Foods Mitigate Inflammation

Inflammation is an important component of your immune system; but if left unchecked, chronic inflammation can reap havoc on your body. Inflammatory response cue the release of secondary compounds and chemical mediators to battle an infection or threat; however, they can also result in tissue damage (5). Omega-3 fatty acids have consistently demonstrated an anti-inflammatory response which helps to mitigate the extent and duration of inflammation in the body (6, 7). Therefore, increasing dietary intake of Omega-3 fatty acids could offer beneficial relief for those suffering from chronic inflammatory-related diseases such as arthritis or cardiovascular disease (6).

5. Omega-3 Food = Brain Food

Omega-3 fatty acids play an important role in the central nervous system's membrane development and function. They contribute towards the function of transporters and receptors while also ensuring signalling pathways function properly (8). There is growing interest in the nutraceutical properties of food; with particular focus on treatment and prevention of mental health and mood disorders. Several research studies have identified lower risk of depression in patients consuming more Omega-3 fatty acids (8, 9,10). Regular consumption of Omega-3s have also been shown to support specific regions within the brain associated with information processing, memory and emotions, and may help prevent mental decline and the risk of Alzheimer's (11).

6. Omega-3s Benefit Your Heart

The beneficial effects of Omega-3 fatty acids on heart health have arguably gained the most attention of all the benefits associated with these nutrients. So much so, that the American Heart Association has included recommendations for daily Omega-3 fatty acid intake as a preventative measure to heart disease. It was found that communities in which people consumed higher levels of omega-3 fatty acids had significantly lower risk of heart disease

(12). The effect of Omega-3 fatty acids on heart health are believed to be associated with their ability to help increase the “good” HDL cholesterol and reducing inflammation (13)

7. Omega-3s Benefit Your Skin

Your skin is your armour and your first line of defense against infection. Omega-3 fatty acids play an integral role in cellular structure making them a critical component for skin health. Furthermore, the anti-inflammatory and anti-oxidative properties of these fatty acids may help protect your skin. Research has demonstrated that a diet rich in Omega-3 fatty acids may provide photo-protection from ultraviolet light and reduce the risk of skin tumours (14). Other studies have reported a reduction in sunburn damage, signs of aging, infection and atopic dermatitis (15).

8. Omega-3 Benefit Child Development

Every parent wants what is best for their child and Omega-3 fatty acids are crucial for child development. By consuming regular amounts of Omega-3 fatty acids, children may grow-up to have improved communication and social skills, decreased risk of disease and even intellectual success (16). Not to mention they are important for brain development (see number 5)!

9. Omega-3s Build Stronger Bodies

Even though Omega-3s are a fatty acid, they may also help build strong muscles! There is growing evidence supporting Omega-3 benefits towards muscle maintenance and muscle-protein synthesis. A recent review published in January 2019 identified several benefits of Omega-3 fatty acids on skeletal muscle health (6). Although the mechanisms are not well defined, it is clear that omega-3 fatty acids influence the signalling pathways associated with muscle cell growth (6). The implication of these findings could influence dietary programs for professional athletes and help mitigate muscle loss in aging populations.

10. Omega-3 Foods Aren't Hard To Find

The functional food market continues to grow around the world offering increasing availability of nutrient-dense food products enriched with the essential nutrients consumers need. When it comes to omega-3 fatty acids, you are no longer restricted to seafood, seeds or supplement options. Products such as Omega-3 eggs, for example, originate from birds fed diets containing healthful fats which can be naturally transferred into the egg for the consumer. This provides you with the opportunity to choose familiar products that have an improved Omega-3 profile and can contribute towards your daily intake goals. Other products, such as naturally enriched cheeses, are also popping-up on market shelves. The holistic approach to developing Omega-3 functional foods not only helps societal health and offers more options for you as a consumer, but this approach may benefit the animals' health as well. A win-win for all!