

# Center for **Cardiovascular** Health

*"Empowering patients in the pursuit of optimal health by providing compassionate cardiovascular care addressing the Causes, Prevention, Treatment, and Reversal of the Disease."*

Three of the most common types of omega 3 EFAs(essential fatty acids):

**EPA, DHA and ALA.**

Eicosapentaenoic acid (**EPA**) and docosahexaenoic acid (**DHA**) are two converted types of omega 3 essential fats found in fatty, cold-water fish such as mackerel, sardines, salmon, herring, halibut, trout, anchovies, and tuna.

Fish rich in omega 3s produce both EPA and DHA from alpha-linolenic acid (**ALA**), a plant-based precursor to other types of omega 3 EFAs. Salmon and other high omega 3 fish obtain their dietary ALA from marine phytoplankton and seaweed and convert these marine plant sources of basic ALA into more useful forms such as EPA and DHA.

Flax seeds, flax oil, chia seeds, hemp seeds, hemp oil, avocado, walnuts, and walnut oil are other popular food sources of **ALA**, but are devoid of **EPA** and **DHA**. For the body to truly benefit from omega 3 fats, short-chain **ALA** must be converted into long-chain EFAs such as **EPA** and **DHA** first.

# Center for **Cardiovascular** Health

*"Empowering patients in the pursuit of optimal health by providing compassionate cardiovascular care addressing the Causes, Prevention, Treatment, and Reversal of the Disease."*

Conversion of ALA into EPA and DHA does not happen quickly, but converted omega 3s from fish oil supplements can go straight to work and deliver the protection against oxidative stress and damage; support memory, learning and mood; aid in maintaining a healthy immune system; support a healthy heart rhythm, while helping to maintain healthy triglyceride levels and promote the metabolism of dietary fats and cholesterol. Benefits of omega 3 fatty acids may be felt in a relatively short period of time, depending on the ingested amount and frequency of intake.

Fish oil benefits include having both naturally occurring EPA and DHA in the formula.

EPA and DHA are the dynamic duo of bio-available omega 3s. EPA and DHA may have increased benefits when consumed together. These include:

- may help to slow the progression of age-related memory loss
- may support memory and learning ability including focus and attention
- may support healthy brain function and promote a positive mood and well-being

# Center for **Cardiovascular** Health

*"Empowering patients in the pursuit of optimal health by providing compassionate cardiovascular care addressing the Causes, Prevention, Treatment, and Reversal of the Disease."*

Other benefits of fish oil containing both EPA and DHA are that they may help to maintain healthy triglyceride levels, while promoting the metabolism of dietary fat and cholesterol. EPA is believed to work to keep plaque from rupturing- may affect cardiovascular function including inflammation, peripheral artery disease, major coronary events and anticoagulation. DHA plays a specific role in how well cells can communicate with each other; their actions may help support memory and promote cognitive health. Feed the brain!

Swanson, D, Block, R, Mousa, S. Omega-3 fatty acids epa and dha: health benefits throughout life. *American Society for Nutrition. Adv. Nutr.*2012;3: 1–7.

Kidd, PM. Omega-3 dha and epa for cognition, behavior, and mood: clinical findings and structural-functional synergies with cell membrane phospholipids. *Alternative Medicine Review* 2007;12(3):207-227.

<https://smartypantsvitamins.com/what-are-epa-and-dha/>