

HEART HEALTH & ALASKA SEAFOOD



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HEART HEALTH AND ALASKA SEAFOOD

We have all heard that consuming more fish is beneficial to reducing your risk for heart disease, but have you ever stopped to wonder why? One of the primary reasons is that fish, especially fatty fish such as salmon, contain important omega-3 polyunsaturated fatty acids (PUFA) such as eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).

THE EFFECTS OF OMEGA-3 FATTY ACIDS ON HEART HEALTH ARE ONE OF THE MOST STUDIED AREAS OF NUTRITION SCIENCE, AND RESEARCH HAS PROVEN THEIR BENEFITS TO BE FAR REACHING.[14]

MORE ON OMEGA 3-FATTY ACIDS

Several different types of omega-3 fatty acids exist, but the most researched are docosahexaenoic acid (DHA), eicosapentaenoic acid (EPA) and alpha-linolenic acid (ALA). Omega-3 fatty acids are high quality fats that are critical components of our diets because our bodies cannot produce ALA, and only small quantities of EPA and DHA. Omega-3 fatty acids are a part of every cell in our bodies, but especially the cells of our eyes, heart and brain.



DHA AND EPA HAVE THE GREATEST HEALTH BENEFITS

and are found in seafood and fatty fish such as salmon, herring, sardines, oysters, and black cod.

ALA is found in plant foods such as soybean oil, canola oil, nuts, flaxseed, chia and hemp. The body's ability to convert ALA to EPA is at a rate of 5% to 15%, and <1% of ALA reliably converts to DHA. [23] Because of this, consuming EPA and DHA directly from food is the best way to increase levels of these beneficial fatty acids in the body.

HEART DISEASE AND DEATH

Every year, 610,000 people die from heart disease, which is the leading cause of death in both men and women. [30, 31] The most common form of heart disease is coronary heart disease [25] and studies show that fish consumption reduces the risk of dying from coronary heart disease, even when eating fish as little as one time per week. [16, 17, 18] Sudden cardiac death is responsible for 15% of all deaths



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in westernized countries. The higher the combined dietary intake of EPA and DHA, especially from seafood, the lower the risk of fatal heart attacks in adults as measured by laboratory tests that measure the amount of DHA and EPA in the blood, called the omega-3 index. [6, 7, 8, 9, 13, 30]



CHOLESTEROL

Omega-3 fatty acids can dramatically lower the number of triglycerides in blood, thus reducing the risk of heart disease. [25,26] People with type 2 diabetes and certain types of heart disease can have very high levels of blood triglycerides, which can increase their risk of heart disease.

Eating omega-3 fatty acids from seafood,

and from supplementation, is one of the best ways to lower triglyceride levels. [27]

Another heart healthy benefit of eating seafood with high levels of EPA and DHA is that it helps to increase blood levels of HDL cholesterol. [29] People who have higher levels of HDL, or “good” cholesterol, in their blood are less likely to develop heart disease or heart failure. [28] HDL cholesterol is beneficial as it removes cholesterol from the blood vessels, before it causes harm. Some research has shown that seafood omega-3’s do not lower LDL or “bad” cholesterol levels and may raise them modestly. [26] Because of this, it is recommended that an individual work with their doctor to individualize any therapeutic doses of fish oil supplementation or pharmaceutical and lifestyle approaches to improve triglyceride levels.



HEART RATE

The heart circulates oxygen and nutrients throughout the body and brings back waste products. When heart rate is too fast or the rhythm is irregular, these functions are impacted. An elevated resting heart rate is a major risk factor for sudden cardiac death. Consuming EPA and DHA has proven to be beneficial in controlling heart rate in a variety of ways.

EPA AND DHA

decrease a person’s risk of dying after a heart attack due to arrhythmia (abnormal heart beat). [10]

EPA and DHA can also reduce a person’s resting heart rate and help return heart rate to a resting rate more quickly after exercise. [11]

STROKE

Stroke is the third most common cause of death following cardiovascular diseases and cancer. [30] It’s concerning and important to note that in recent years, the number of individuals who die from stroke continues to grow. [2]



Omega-3 fatty acids reduce inflammation, oxidative stress and endothelial dysfunction associated with stroke.

Additionally, omega-3 fatty acids reduce blood cholesterol and blood pressure, both of which are related to risk of stroke. [19] DHA also lowers blood levels of triglycerides and may also reduce insulin resistance, which increases a person’s risk of stroke. [2,3,4,5,12]

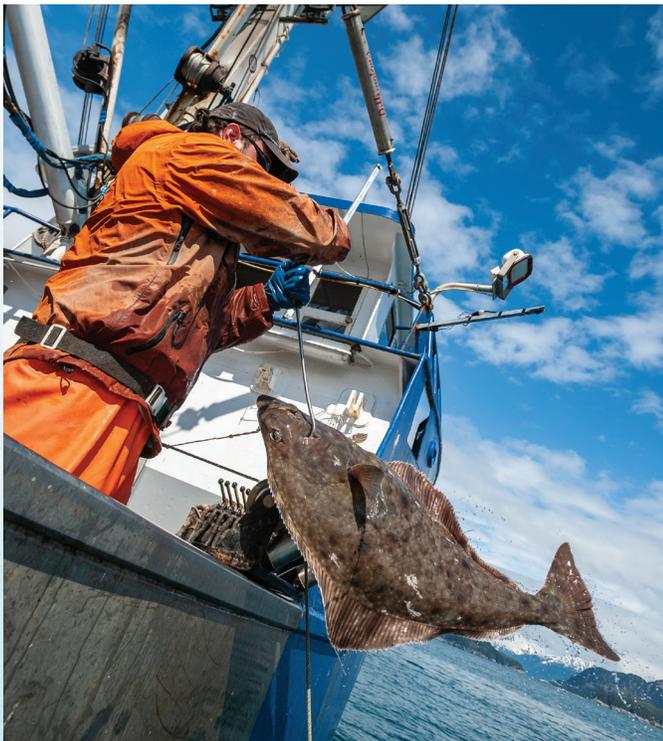
HIGH BLOOD PRESSURE

High blood pressure, or hypertension, is one of the leading risk factors in the development of cardiovascular disease. [20] Unfortunately, many individuals who have hypertension have poor control over their blood pressure. According to 2009-2012 NHANES data, 46% of individuals with hypertension do not have it controlled. [21]



OMEGA-3 FATTY ACID CONSUMPTION AND SUPPLEMENTATION HAS SHOWN TO BE BENEFICIAL IN LOWERING BLOOD PRESSURE. [22, 33]

Clinical standards for supplementation still have not been established, so talk to your doctor for more information.



INFLAMMATION

Inflammation is a part of our immune system that plays an important role in healing. For example, if you cut your finger, your body's inflammatory response helps to fight germs and heal the wound. However, chronic, low-grade Inflammation has been found to be an underlying cause in many diseases including Alzheimer's, arthritis, cancer, diabetes, depression and heart disease. This type of inflammation can occur when an individual does not live a healthy lifestyle due to factors such as smoking, being sedentary, eating a poor diet, poor sleep habits, or stress.

Chronic, low-grade inflammation is closely linked to atherosclerosis, or the buildup of fatty deposits on the inside of the wall of arteries. This buildup can eventually lead to the formation of harmful blood clots, which can cause a heart attack or stroke. Omega-3 fatty acids from fish contain anti-inflammatory properties, which help to reduce this risk. [1]



Omega-3 fatty acids are involved in the reduction of inflammation in our bodies by reducing inflammatory compounds.



Omega-3 fatty acids are involved in the reduction of inflammation in our bodies by reducing inflammatory compounds such as pro-inflammatory cytokines, interleukin-6 (IL-6) and tumor necrosis factor alpha (TNF-a). [15, 31, 32]



KEY RECOMMENDATIONS FOR CONSUMPTION:

- For optimal benefit, consume seafoods that are highest in EPA and DHA such as salmon, sardines, herring, anchovies, and sablefish.
- The Dietary Guidelines for Americans recommend that adults consume 8 ounces (approximately 2 servings) or more of seafood per week for the prevention of coronary heart disease.
- The American Heart Association recommends at least two servings of fish per week, preferably fatty fish, providing a total of 1000+ milligrams of EPA and DHA. [23] Note that Recommended Dietary Allowance (RDA) or Estimated Average Requirements (EAR) of omega-3 fatty acids have not yet been established.
- Supplementation of omega-3 fatty acids can also be beneficial; however, consensus guidelines have not yet been established. Talk to your doctor or registered dietitian for more information.

SEAFOOD AND HEART HEALTH

It is abundantly clear that incorporating nutrient dense seafood into your diet can have a tremendous benefit on your overall heart health.



EPA AND DHA FROM SEAFOOD

Seafood is the best food source of EPA and DHA, and one of the easiest ways to incorporate heart protecting omega-3 fatty acids into your diet.

By doing so, you could lower inflammation; decrease your risk of coronary heart disease; reduce your risk of dying from a heart attack or stroke; and improve triglyceride and cholesterol levels.



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