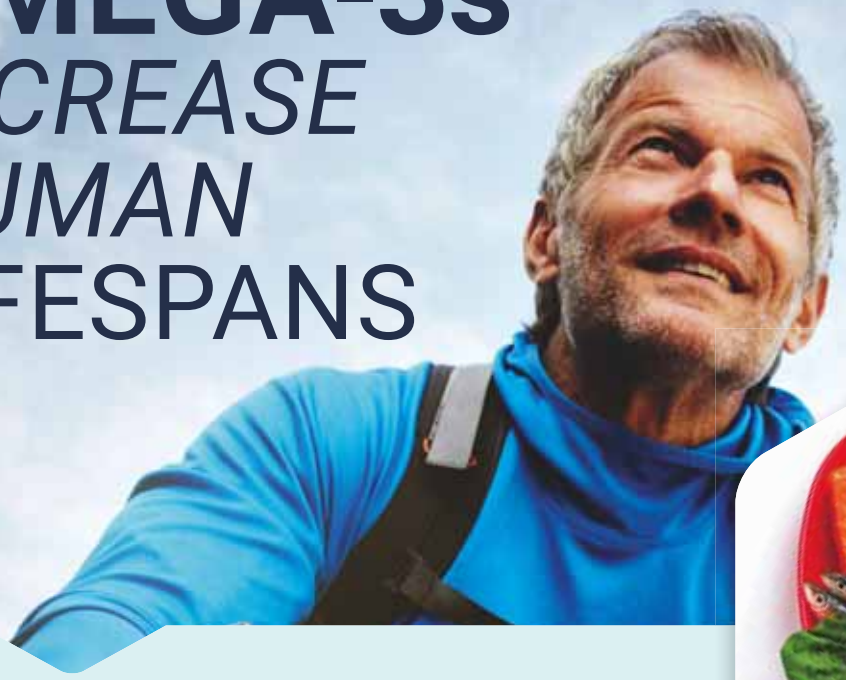
OMEGA-3s *INCREASE HUMAN* LIFESPANS



BY ERIC CORTEZ

Fish oil rich in **omega-3s** has been shown to *lower* triglycerides, *reduce* the risk of cardiovascular events, and *protect* against cognitive decline.[1-3]

But the benefits don't stop there.

A **2021** study found that *higher* omega-3 **blood levels** are associated with an increase in **life expectancy** of **4.7 years**.[4]

Another study found that having the *highest* omega-3 blood levels, compared to the lowest, was associated with a **34%** lower **risk of death** from *any* cause.[5]

For the past *four* decades **Life Extension** has educated consumers about the importance of consuming enough omega-3 fatty acids.

Recent data indicate the benefits exceed original expectations.

Omega-3 Fatty Acids in Diet

The two most important omega-3 fatty acids, **DHA** and **EPA**, are found primarily in **fish oil**.

The modern Western diet, which is heavy in beef, pork, and poultry, is extremely low in omega-3s.

At the same time, our diets tend to be very high in **omega-6 fatty acids**, which are found in many processed foods.

An excess of **omega-6** oils increases chronic **inflammation** throughout the body, accelerates the development of **atherosclerosis**, elevates risk for blood clots, and increases risk for **obesity**.[6,7]

Omega-3 fatty acids from fish oil and/or regular consumption of cold-water fish can help counter this omega-6 excess.

New Findings About Fish Oil and Lifespan

The **Framingham Heart Study** is one of the longest-running and most influential medical studies in history. Since it began in **1948**, it has followed thousands of people for decades and is now on its third generation of subjects.

Much of what modern medicine knows about the risk factors for **heart disease** has come from following Framingham study subjects.

The Framingham study, which has been extended by studying the children of the original participants, continues to be a valuable source of information about chronic disease and overall health.

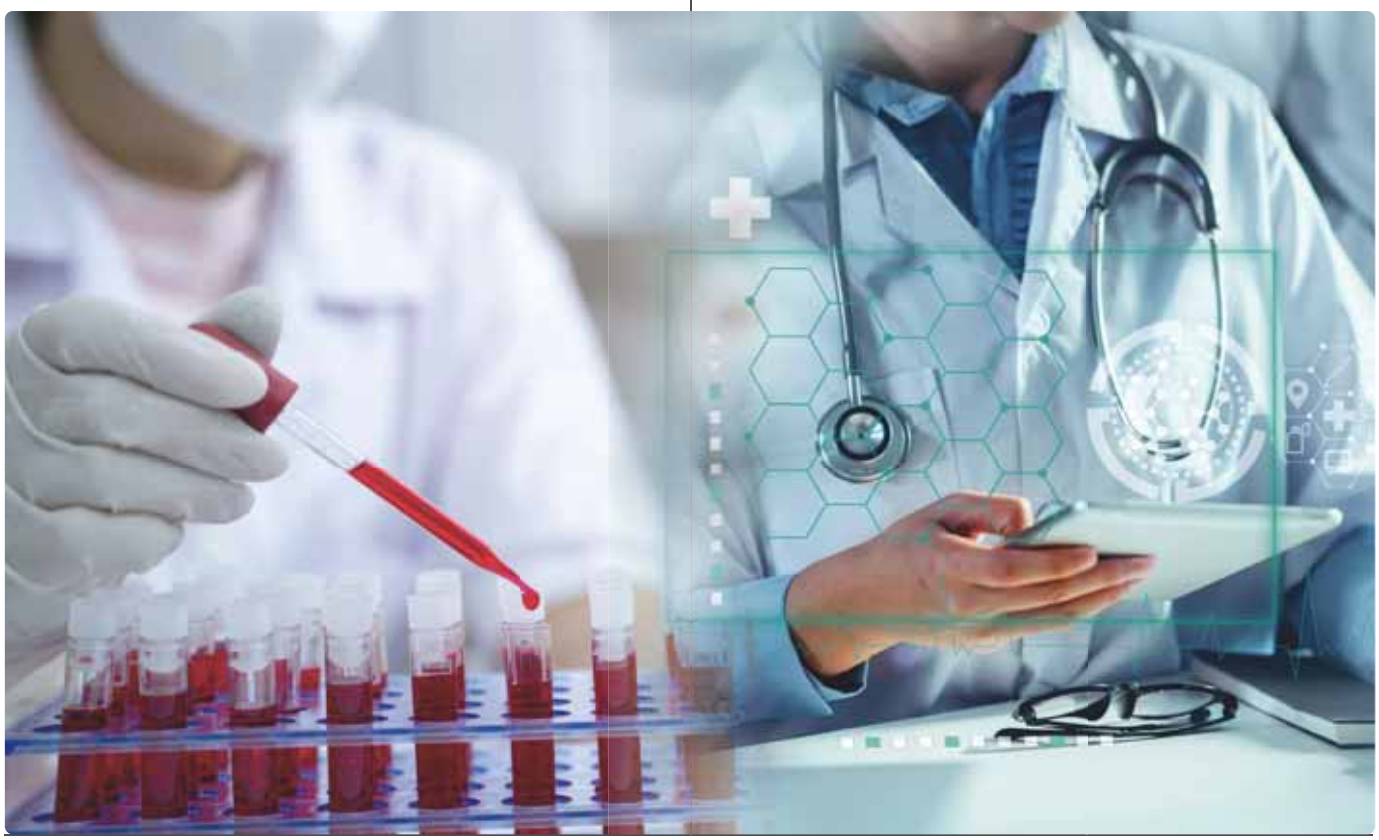
In the past few years, two medical reports examined data on the Framingham offspring cohort and presented remarkable findings about the impact of **omega-3 fatty acids** on heart health and longevity.[4,5]

The first paper, published in **2018**, focused on the impact of the **omega-3 index** blood test on health outcomes.[5]

The **omega-3 index** is a measure of the percentage of total fats in red blood cells that are EPA and DHA. Prior studies have determined that an omega-3 index of around **8%** is optimal. Most people consuming a modern Western diet have a far lower omega-3 score.[8,9]

Researchers found that a *higher* **omega-3 index** was associated with a significantly *lower* risk of **all-cause mortality**.[5]

Having *more* omega-3s in the blood reduced non-cardiac and non-cancer causes of death, along with **cardiovascular events** like stroke and heart attack.



Compared to individuals with the lowest **omega-3 index** score, those with the *highe*st had:[5]

- A **34%** lower risk of **death from any cause**, and
- A **39%** lower rate of developing **cardiovascular disease**.

A more recent analysis, published in **2021** in the *American Journal of Clinical Nutrition*, found that the **omega-3 index** was as good at predicting **risk of death** during an **11-year** follow-up as age, smoking, blood pressure, diabetes, and other well-established risk factors.[4]

This study also found that having the *highest* blood levels of **omega-3** fatty acids, compared to the lowest, was associated with increases in **life expectancy** of **4.7 years.**

Whole-Body Health

Most people associate **omega-3 fatty acids** with **heart health**.

There's good reason for that. Published data support *higher* intake of omega-3 for both the prevention and management of **cardiovascular conditions**.[10-16]

Higher levels of the omega-3 index *and* regular intake of omega-3s have both been found to reduce risk of **cardiovascular events** like heart attack and stroke, and to reduce **mortality** from heart disease.[15,17,18]

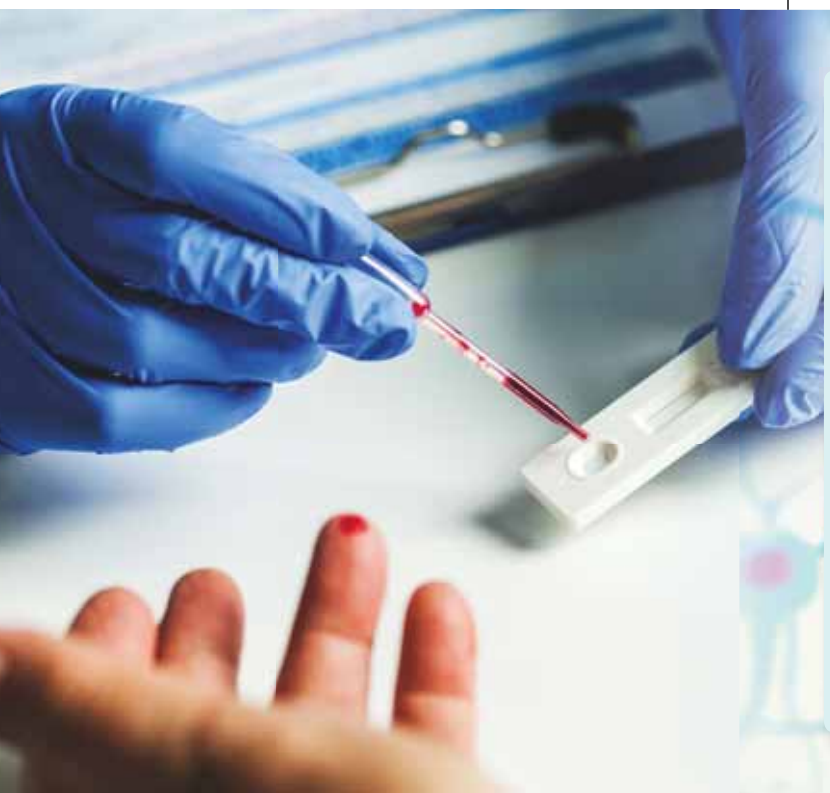
Beyond heart health, maintaining high levels of **omega-3s** contributes to a healthier and longer life.

The following pages describe some of the ways that omega-3s favorably impact longevity.

WHAT YOU NEED TO KNOW

Omega-3s Promote a Longer, Healthier Life

- The fish-oil-derived **omega-3 fatty acids** DHA and EPA are vital nutrients that impact many aspects of health.
- *Higher* blood levels of omega-3 fatty acids are associated with improved **brain** and **cardiovascular health**, along with reductions in chronic **inflammation**.
- Recently published analyses from the Framingham Heart Study offspring cohort found links between omega-3 levels and **longevity**.
- These reports show that the **highest** levels of omega-3 fatty acids, compared with the lowest, were associated with a **34%** lower risk of **dying from any cause** and with increases in **life expectancy** by almost ***five years***.
- The highest levels of omega-3s in the blood were also associated with a **39%** lower rate of developing **cardiovascular disease**.



Omega-3 Index Complete At-Home Finger Stick Test

The **Omega-3 Index Complete** test evaluates your omega-3 index, trans fat index, omega-6: omega-3 ratio, arachidonic acid: EPA ratio, and also includes a full fatty acid profile.

#LC100066 • Regular Price: $99
Sale Price: $74.25 (Until July 11, 2022)

To order this at-home test, please call **1-800-544-4440** or visit **www.LifeExtension.com**

Metabolic Health

Elevated **triglycerides** are associated with metabolic disturbances that increase heart attack and ischemic stroke risk.[19]

Increased cardiovascular risks are also associated with **small-dense LDL particles**,[20] **very low density lipoproteins** (VLDL),[21] and **remnant lipoprotein particles**.[22] These are all known promoters of **atherosclerosis**.[23-25] Supplementation with **fish oil** has positive effects on these and other markers of cardiovascular risk.[26-30]

Fish oil lowers **triglycerides** and other atherosclerosis-inducing **lipoproteins** by:[31-35]

- Increasing the clearance of triglyceride-rich lipoproteins from the bloodstream,
- Decreasing the liver's production and secretion of triglyceride-rich lipoproteins, and
- Increasing the activity of lipoprotein lipase, which breaks down triglycerides so the body's tissues can use the fatty acids.

Life Extension considers optimal fasting triglyceride levels to be below **100 mg/dL**. Individuals at high risk for cardiovascular events should strive for even *lower* levels.

Brain Health

Omega-3 fatty acids play a critical role in the **brain**.

One reason is that they are a key component of brain cell membranes.

Brain cell membranes generate and conduct the electrical *signals* that play a role in everything from simple movement, to language, reasoning, and memory formation and recall.

These *signals* cannot be conducted properly without myelin, which insulates the fibers of nerve cells.[31] **Myelin sheaths** that cover nerve fibers require **omega-3s** to function optimally.[37]

Omega-3 intake also impacts levels of **brain growth factors** that support the survival, development, and adaptability of neurons.[38-41]

One study in an animal model of **Alzheimer's disease** found that even short-term **omega-3** intake improved the function of brain cells in animals that had not yet developed dementia symptoms.[42]

Mental Health

The benefits of omega-3s in the brain extend to mental health. Studies show that lower fish oil or omega-3 intake is associated with a greater prevalence of **depression**.[41,43-45]

In a **2020** study, pregnant women—who are at risk for post-partum depression—were randomized to take either omega-3 fatty acids (containing **1,206 mg** EPA and **609 mg** DHA) or a **placebo**.[46] Those taking the fish oil saw a decrease in symptoms of **depression**, while no change was observed in the **placebo** group.

Chronic Inflammation

Chronic inflammation drives nearly all forms of chronic disease, including cancer, obesity, diabetes, cardiovascular disease, cognitive decline, and dementia.

Maintaining a healthy level of omega-3 fatty acids in the body can reduce and help **resolve** chronic inflammation.[6,7,47] That can help lower risk for most age-related chronic illnesses.

Summary

Omega-3 fatty acids are vital for whole-body health.

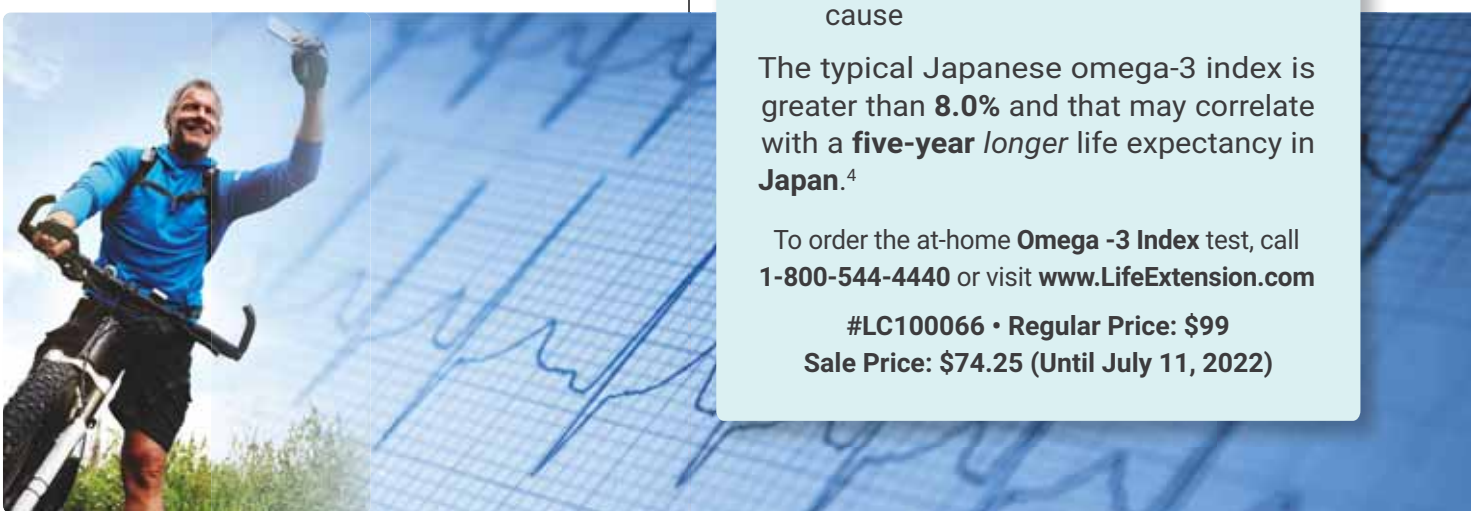
The most abundant and efficient way to deliver them into your body is through **fish oil**.

The vast majority of Americans have inadequate intake of these healthy oils in their diet.

Numerous studies show a correlation between *higher* levels of omega-3 fatty acids in the body and better health. Other studies show that a high daily dose of **fish oil** can improve a variety of health outcomes.

A recent report links *higher* omega-3 levels in the blood with a **4.7-year increase in life expectancy**. ●

If you have any questions on the scientific content of this article, please call a **Life Extension** Wellness Specialist at 1-866-864-3027.



Importance of Omega-3 Testing

The best way to know for sure if you are getting enough **omega-3** fatty acids is to test your blood levels. The **Omega-3 Index** is a blood test that can measure the **percent** of omega-3 fatty acids in red blood cells.

Omega-3 testing is easy with a simple at-home finger stick test.

Ideally, your **Omega-3-Index** score should be *greater than* **6.8%**

One dose-response study estimated that it would take about **1,300 mg** of added **EPA/DHA** from fish or supplements to increase the **omega-3 index** from *less than* **4.2%** to *greater than* **6.8%**.[48]

An analysis from the Framingham offspring cohort reveals a red blood cell **omega-3 index** over **6.8%** is associated with **4.7 years** additional **life expectancy** compared with an **omega-3 index** under **4.2%**.[4]

In another study, people with **omega-3** scores *greater than* **6.8%** compared with those *less than* **4.2%** have:[5]

- **39%** lower risk for **cardiovascular** disease
- **34%** lower risk of **death** from *any* cause

The typical Japanese omega-3 index is greater than **8.0%** and that may correlate with a **five-year** *longer* life expectancy in **Japan**.[4]

To order the at-home **Omega -3 Index** test, call **1-800-544-4440** or visit **www.LifeExtension.com**

#LC100066 • Regular Price: $99
Sale Price: $74.25 (Until July 11, 2022)

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