

17 Science-Based Benefits of Omega-3 Fatty Acids

Omega-3 fatty acids are incredibly important.

They have many powerful health benefits for your body and brain.

In fact, few nutrients have been studied as thoroughly as omega-3 fatty acids.

Here are 17 health benefits of omega-3 fatty acids that are supported by science.

1. Omega-3s Can Fight Depression and Anxiety

Depression is one of the most common mental disorders in the world.

Symptoms include sadness, lethargy and a general loss of interest in life ([1](#), [2](#)).

Anxiety, also a common disorder, is characterized by constant worry and nervousness ([3Trusted Source](#)).

Interestingly, studies indicate that people who consume omega-3s regularly are less likely to be depressed ([4Trusted Source](#), [5Trusted Source](#)).

What's more, when people with depression or anxiety start taking omega-3 supplements, their symptoms improve ([6](#), [7](#), [8Trusted Source](#)).

There are [three types of omega-3](#) fatty acids: ALA, EPA and DHA. Of the three, EPA appears to be the best at fighting depression ([9Trusted Source](#)).

One study even found EPA as effective against depression as a common antidepressant drug ([10](#)).

Summary

Omega-3 supplements may help prevent and treat depression and anxiety. EPA seems to be the most effective at fighting depression.

2. Omega-3s Can Improve Eye Health

DHA, a type of omega-3, is a major structural component of the retina of [your eye](#) ([11Trusted Source](#)).

When you don't get enough DHA, vision problems may arise ([12Trusted Source](#), [13Trusted Source](#)).

Interestingly, getting enough omega-3 is linked to a reduced risk of macular degeneration, one of the world's leading causes of permanent eye damage and blindness ([14Trusted Source](#), [15Trusted Source](#)).

Summary

An omega-3 fatty acid called DHA is a major structural component of your eyes' retinas. It may help prevent macular degeneration, which can cause vision impairment and blindness.

3. Omega-3s Can Promote Brain Health During Pregnancy and Early Life

Omega-3s are crucial for brain growth and development in infants.

DHA accounts for 40% of the polyunsaturated fatty acids in your brain and 60% in the retina of your eye ([12Trusted Source](#), [16Trusted Source](#)).

Therefore, it's no surprise that infants fed a DHA-fortified formula have better eyesight than infants fed a formula without it ([17Trusted Source](#)).

Getting enough omega-3s during [pregnancy](#) is associated with numerous benefits for your child, including ([18Trusted Source](#), [19Trusted Source](#), [20Trusted Source](#)):

- Higher intelligence
- Better communication and social skills
- Fewer behavioral problems
- Decreased risk of developmental delay
- Decreased risk of ADHD, autism and cerebral palsy

Summary

Getting enough omega-3s during pregnancy and early life is crucial for your child's development. Supplementing is linked to higher intelligence and a lower risk of several diseases.

4. Omega-3s Can Improve Risk Factors for Heart Disease

Heart attacks and strokes are the world's leading causes of death ([21Trusted Source](#)).

Decades ago, researchers observed that fish-eating communities had very low rates of these diseases. This was later linked to omega-3 consumption ([22Trusted Source](#), [23Trusted Source](#)).

Since then, omega-3 fatty acids have been tied to numerous benefits for [heart health](#) ([24Trusted Source](#)).

These benefits address:

- **Triglycerides:**
Omega-3s can cause a major reduction in [triglycerides](#), usually in the range of 15–30% ([25Trusted Source](#), [26Trusted Source](#), [27Trusted Source](#)).
- **Blood pressure:**
Omega-3s can reduce blood pressure levels in people with high blood pressure ([25Trusted Source](#), [28Trusted Source](#)).
- **“Good” HDL cholesterol:**
Omega-3s can raise “good” HDL cholesterol levels ([29Trusted Source](#), [30Trusted Source](#), [31Trusted Source](#)).
- **Blood clots:** Omega-3s can keep blood platelets from clumping together. This helps prevent the formation of harmful blood clots ([32Trusted Source](#), [33Trusted Source](#)).
- **Plaque:** By keeping your arteries smooth and free from damage, omega-3s help prevent the plaque that can restrict and harden your arteries ([34Trusted Source](#), [35Trusted Source](#)).
- **Inflammation:**
Omega-3s reduce the production of some substances released during your body’s inflammatory response ([36Trusted Source](#), [37Trusted Source](#), [38Trusted Source](#)).

For some people, omega-3s can also lower “bad” LDL cholesterol. However, evidence is mixed — some studies find increases in LDL ([39Trusted Source](#), [40Trusted Source](#)).

Despite these beneficial effects on heart disease risk factors, there is no convincing evidence that omega-3 supplements can prevent heart attacks or strokes. Many studies find no benefit ([41Trusted Source](#), [42Trusted Source](#)).

Summary

Omega-3s improve numerous heart disease risk factors. However, omega-3 supplements do not seem to reduce your risk of heart attacks or strokes.

5. Omega-3s Can Reduce Symptoms of ADHD in Children

Attention deficit hyperactivity disorder (ADHD) is a behavioral disorder characterized by inattention, hyperactivity and impulsivity ([43Trusted Source](#)).

Several studies note that children with ADHD have lower blood levels of omega-3 fatty acids than their healthy peers ([44Trusted Source](#), [45Trusted Source](#)).

What’s more, numerous studies observe that omega-3 supplements can reduce the symptoms of ADHD.

Omega-3s help improve inattention and task completion. They also decrease hyperactivity, impulsiveness, restlessness and aggression ([46Trusted Source](#), [47Trusted Source](#), [48Trusted Source](#), [49Trusted Source](#)).

Recently, researchers observed that fish oil supplements were one of the most promising treatments for [ADHD](#) ([50Trusted Source](#)).

Summary

Omega-3 supplements can reduce the symptoms of ADHD in children. They improve attention and reduce hyperactivity, impulsiveness and aggression.

6. Omega-3s Can Reduce Symptoms of Metabolic Syndrome

Metabolic syndrome is a collection of conditions.

It includes central obesity — also known as [belly fat](#) — as well as high blood pressure, [insulin resistance](#), high triglycerides and low “good” HDL cholesterol levels.

It is a major public health concern because it increases your risk of many other illnesses, including heart disease and diabetes ([51Trusted Source](#)).

Omega-3 fatty acids can improve insulin resistance, inflammation and heart disease risk factors in people with metabolic syndrome ([52Trusted Source](#), [53Trusted Source](#), [54Trusted Source](#)).

Summary

Omega-3s can have numerous benefits for people with metabolic syndrome. They can reduce insulin resistance, fight inflammation and improve several heart disease risk factors.

7. Omega-3s Can Fight Inflammation

Inflammation is a natural response to infections and damage in your body. Therefore, it is vital for your health.

However, inflammation sometimes persists for a long time, even without an infection or injury. This is called chronic — or long-term — inflammation.

Long-term inflammation can contribute to almost every chronic Western illness, including heart disease and cancer ([55Trusted Source](#), [56Trusted Source](#), [57Trusted Source](#)).

Notably, omega-3 fatty acids can reduce the production of molecules and substances linked to inflammation, such as inflammatory eicosanoids and cytokines ([58Trusted Source](#), [59Trusted Source](#)).

Studies have consistently observed a connection between higher omega-3 intake and [reduced inflammation](#) ([8Trusted Source](#), [60Trusted Source](#), [61Trusted Source](#)).

Summary Omega-3s

can reduce chronic inflammation, which can contribute to heart disease, cancer and various other diseases.

8. Omega-3s Can Fight Autoimmune Diseases

In autoimmune diseases, your immune system mistakes healthy cells for foreign cells and starts attacking them.

Type 1 diabetes is one prime example, in which your immune system attacks the insulin-producing cells in your pancreas.

Omega-3s can combat some of these diseases and may be especially important during early life.

Studies show that getting enough omega-3s during your first year of life is linked to a reduced risk of many autoimmune diseases, including type 1 diabetes, autoimmune [diabetes](#) and multiple sclerosis ([62Trusted Source](#), [63Trusted Source](#), [64Trusted Source](#)).

Omega-3s also help treat lupus, rheumatoid arthritis, ulcerative colitis, Crohn's disease and psoriasis ([65Trusted Source](#), [66Trusted Source](#), [67Trusted Source](#), [68Trusted Source](#)).

Summary

Omega-3 fatty acids can help fight several autoimmune diseases, including type 1 diabetes, rheumatoid arthritis, ulcerative colitis, Crohn's disease and psoriasis.

9. Omega-3s Can Improve Mental Disorders

Low omega-3 levels have been reported in people with psychiatric disorders ([69Trusted Source](#)).

Studies suggest that omega-3 supplements can reduce the frequency of mood swings and relapses in people with both schizophrenia and bipolar disorder ([69Trusted Source](#), [70Trusted Source](#), [71Trusted Source](#)).

Supplementing with omega-3 fatty acids may also decrease violent behavior ([72Trusted Source](#)).

Summary

People with mental disorders often have low blood levels of omega-3 fats. Improving omega-3 status seems to improve symptoms.

10. Omega-3s Can Fight Age-Related Mental Decline and Alzheimer's Disease

A decline in brain function is one of the unavoidable consequences of aging.

Several studies link higher omega-3 intake to decreased age-related mental decline and a reduced risk of Alzheimer's disease ([73Trusted Source](#), [74Trusted Source](#), [75Trusted Source](#)).

One review of controlled studies suggests that omega-3 supplements may be beneficial at disease onset, when the symptoms of AD are very mild ([76Trusted Source](#)).

Keep in mind that more research is needed on omega-3s and [brain health](#).

Summary

Omega-3 fats may help prevent age-related mental decline and Alzheimer's disease, but more research is needed.

11. Omega-3s May Help Prevent Cancer

[Cancer](#) is one of the leading causes of death in the Western world, and omega-3 fatty acids have long been claimed to reduce the risk of certain cancers.

Interestingly, studies show that people who consume the most omega-3s have up to a 55% lower risk of colon cancer ([77Trusted Source](#), [78Trusted Source](#)).

Additionally, omega-3 consumption is linked to a reduced risk of prostate cancer in men and breast cancer in women. However, not all studies give the same results ([79Trusted Source](#), [80Trusted Source](#), [81Trusted Source](#)).

Summary

Omega-3 intake may decrease the risk of some types of cancer, including colon, prostate and breast cancer.

12. Omega-3s Can Reduce Asthma in Children

Asthma is a chronic lung disease with symptoms like coughing, shortness of breath and wheezing.

Severe asthma attacks can be very dangerous. They are caused by inflammation and swelling in the airways of your lungs.

What's more, asthma rates in the US have been rising over the past few decades ([82Trusted Source](#)).

Several studies associate omega-3 consumption with a lower risk of asthma in children and young adults ([83Trusted Source](#), [84Trusted Source](#)).

Summary

Omega-3 intake has been associated with a lower risk of asthma in both children and young adults.

13. Omega-3s Can Reduce Fat in Your Liver

Non-alcoholic [fatty liver](#) disease (NAFLD) is more common than you think.

It has increased with the obesity epidemic to become the most common cause of chronic liver disease in the Western world ([85Trusted Source](#)).

However, supplementing with omega-3 fatty acids effectively reduces liver fat and inflammation in people with NAFLD ([85Trusted Source](#), [86Trusted Source](#)).

Summary

Omega-3 fatty acids reduce liver fat in people with non-alcoholic fatty liver disease.

14. Omega-3s May Improve Bone and Joint Health

Osteoporosis and [arthritis](#) are two common disorders that affect your skeletal system.

Studies indicate that omega-3s can improve [bone strength](#) by boosting the amount of calcium in your bones, which should lead to a reduced risk of osteoporosis ([87Trusted Source](#), [88Trusted Source](#)).

Omega-3s may also treat arthritis. Patients taking omega-3 supplements have reported reduced joint pain and increased grip strength ([89Trusted Source](#), [90Trusted Source](#)).

Summary Omega-3s

may improve bone strength and joint health, potentially reducing your risk of osteoporosis and arthritis.

15. Omega-3s Can Alleviate Menstrual Pain

Menstrual pain occurs in your lower abdomen and pelvis and often radiates to your lower back and thighs.

It can significantly affect your quality of life.

However, studies repeatedly prove that women who consume the most omega-3s have milder menstrual pain ([91Trusted Source](#), [92Trusted Source](#)).

One study even determined that an omega-3 supplement was more effective than ibuprofen in treating severe pain during menstruation ([93Trusted Source](#)).

Summary

Omega-3 fatty acids can reduce menstrual pain and may even be more effective than ibuprofen, an anti-inflammatory drug.

16. Omega-3 Fatty Acids May Improve Sleep

[Good sleep](#) is one of the foundations of optimal health.

Studies tie sleep deprivation to many diseases, including obesity, diabetes and depression ([94Trusted Source](#), [95Trusted Source](#), [96Trusted Source](#), [97Trusted Source](#)).

Low levels of omega-3 fatty acids are associated with sleep problems in children and obstructive sleep apnea in adults ([98Trusted Source](#), [99Trusted Source](#)).

Low levels of DHA are also linked to lower levels of the hormone [melatonin](#), which helps you fall asleep ([100Trusted Source](#)).

Studies in both children and adults reveal that supplementing with omega-3 increases the length and quality of sleep ([98Trusted Source](#), [100Trusted Source](#)).

Summary Omega-3 fatty acids — especially DHA — may improve the length and quality of your sleep.

17. Omega-3 Fats Are Good For Your Skin

DHA is a structural component of your skin. It is responsible for the health of cell membranes, which make up a large part of your skin.

A healthy cell membrane results in soft, moist, supple and wrinkle-free skin.

EPA also [benefits your skin](#) in several ways, including ([101Trusted Source](#), [102](#)):

- Managing oil production and hydration of your skin.
- Preventing hyperkeratinization of hair follicles, which appears as the little red bumps often seen on upper arms.
- Reducing premature aging of your skin.
- Reducing the risk of acne.

Omega-3s can also protect your skin from sun damage. EPA helps block the release of substances that eat away at the [collagen](#) in your skin after sun exposure ([101Trusted Source](#)).

Summary

Omega-3s can help keep your skin healthy, preventing premature aging and safeguarding against sun damage.

The Bottom Line

[Omega-3 fatty acids](#) are vital for optimal health.

Getting them from whole foods — such as fatty fish two times per week — is the best way to ensure [robust omega-3 intake](#).

However, if you don't eat a lot of fatty fish, then you may want to consider taking an omega-3 supplement. For people deficient in omega-3, this is a cheap and highly effective way to improve health.