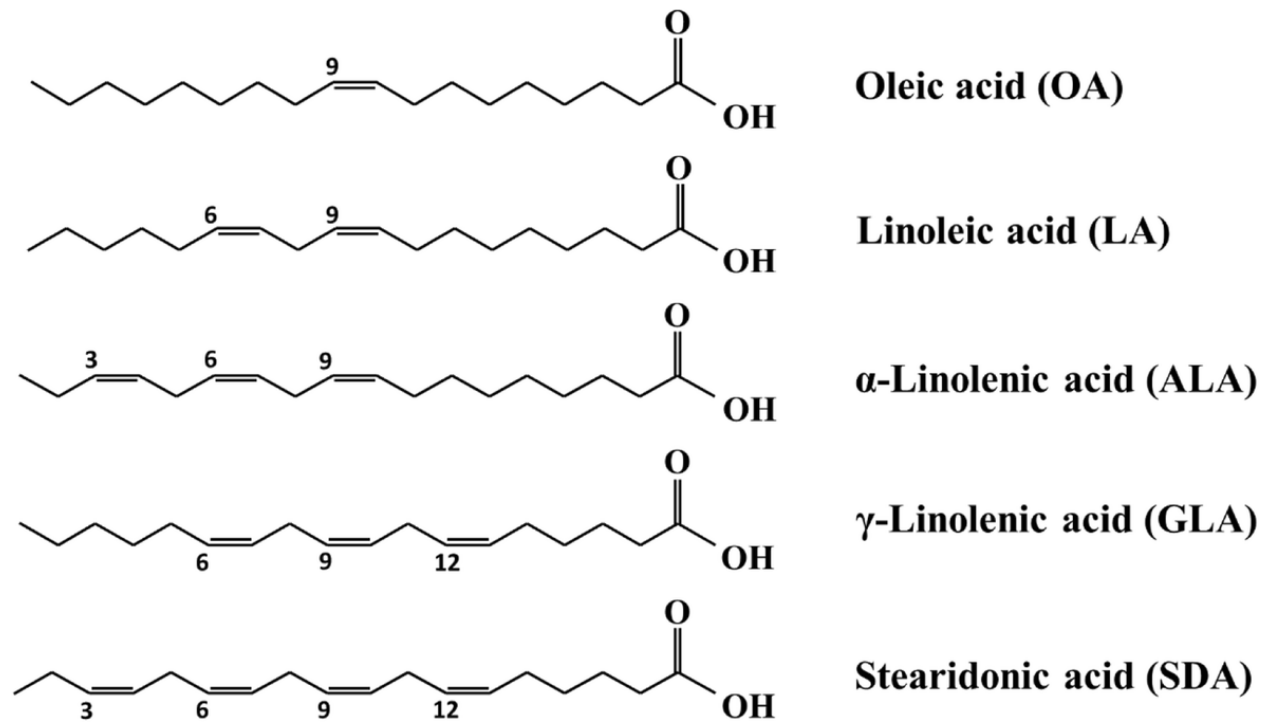
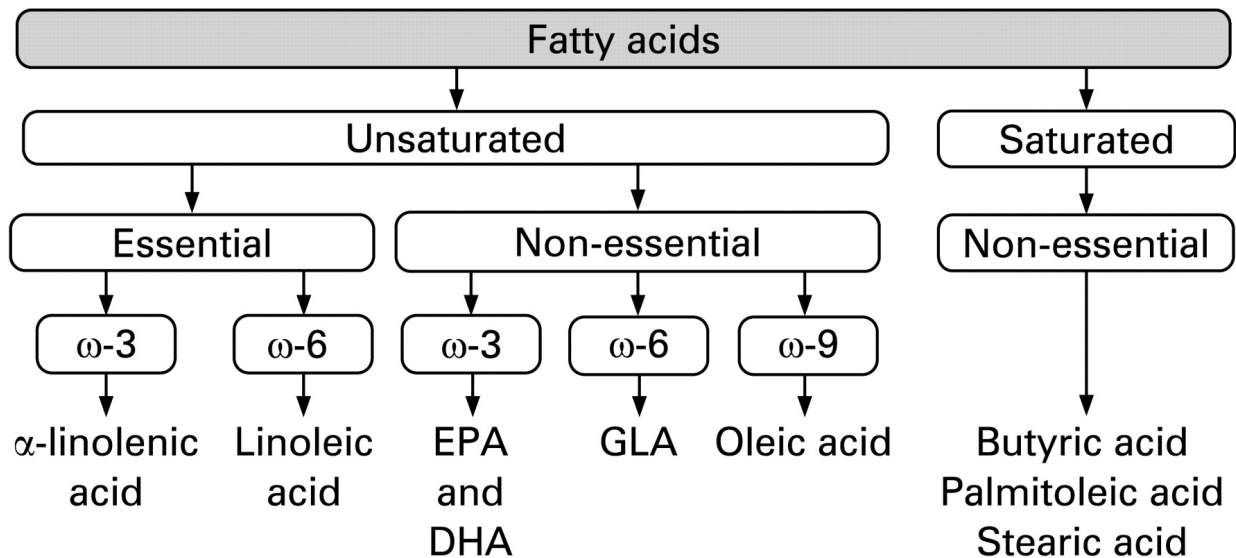
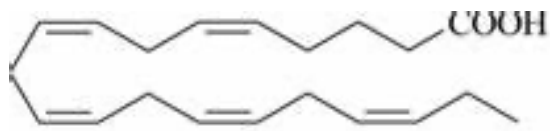


10A. Parent Essential Oils

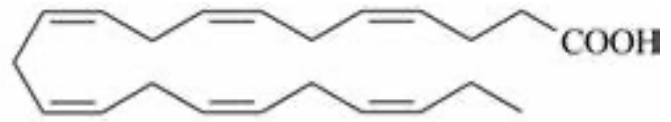
Abstracts

The average person has approximate 11:1 Parent omega-6 to Parent omega-3 in their tissues and organs. Humans need much more Parent omega-6 than Parent omega-3. In fact, most Parent omega-3 is burned for energy.





Eicosapentaenoic acid
(EPA, $C_{20}H_{30}O_2$)



Docosahexaenoic acid
(DHA, $C_{22}H_{32}O_2$)

Today most of the Parent omega-6 consumed is adulterated and not fully usable. Adulterated PEOs are caused by the food processors chemically changing them to get a longer shelf life. This is major cause of today's constant food cravings, and the epidemics of cancer, diabetes, and heart disease.

Chemical structure of some adulterated Omega-6s

| | | | |
|----------------------|--------------------------|-------------------|----------------------|
| | | | |
| Linoleic Acid | Conjugated Linoleic Acid | Ricinoleic Acid | Eicosapentanoic Acid |
| | | | |
| Docosahexaenoic Acid | 18:1 Dicarboxylic Acid | Gamma-Decalactone | Hexanal |

The ratio of omega-6 to omega-3 is out of balance

Review Article Number 1 below:

Human beings have evolved on a diet with a ratio of omega-6 to omega-3 essential fatty acids (EFA) of approximately 1/1 today in Western diets the ratio is 15/1-16.7/1.

A ratio of 4/1 resulted in a 70% decrease in total mortality.

A ratio of 2.5/1 reduced rectal cancer cell proliferation in patients.

A ratio of 2-3/1 suppressed inflammation in patients with rheumatoid arthritis.

A ratio of 5/1 had a beneficial effect on patients with asthma

A ratio of 10/1 had adverse consequences in asthma patients.

Autism

Twenty five years ago, 1 child in 10,000 was diagnosed with Autism; now 1 in 54 children will fall somewhere on the autistic spectrum.

Autism is at least in part caused by an imbalance of the ratio of omega-6 to omega-3 and their cold water derivatives in fish oil.

Part of the Answer to the Autism Epidemic is:

Mothers need more omega-3

Article Number 2 below:

Mothers with an autistic child, by consuming more omega-3 in the second half of pregnancy were 40% less likely to have children with an autism spectrum disorder.

This study also confirmed previous studies that found higher maternal docosahexaenoic acid and eicosapentaenoic acid plasma concentrations, reduced the risk of having a non-typical child. Both are made from Parent Omega-3.

Maternal polyunsaturated fatty acid intake influences the risk for an autism spectrum disorder and sets the stage for the prevention of Autism.

Another Part of the Answer to the Autism Epidemic is:

Fish Oil has too many Omega 3 derivatives.

Fish oil potentially damages the brains of both infants and adults because it displaces the critical omega-6 series metabolites. In several medical journals, the authors have specifically warned against feeding fish oil to infants. However, fish oil consumption can be much more sinister. The pregnant mom can unknowingly be feeding her unborn baby a brain-damaging substance. If this continues once breast-feeding starts, a mom taking fish oil supplements can unknowingly cause even more damage to her newborn.

Stop Fish Oil Consumption-Heart Problems and Autism

Dr. Eric Topol, a renowned cardiologist at Scripps Health at La Jolla, He has recommended discontinuing all fish oil supplementation for the prevention of heart disease. Several large Human Clinical Studies, including one in Lancet, have substantiated his recommendation.

Cold-water fish live in water temperatures close to 32 degrees F. Warm-water fish living in 70 degrees F water have 14X less EPA and DHA content than their cold-water relatives. Humans with a body temperature of 98.6 degrees F require 50 to 100 less EPA and DHA. Fish don't freeze because the high amounts of EPA and DHA acts like Antifreeze.

At 98.6 degrees F, fish oil spontaneously becomes rancid. This fact alone should cause us to question its value to humans.

It has been reported that as much as 17 pounds of fish is required to fill one capsule of fish oil. So what is really in fish oil capsules.

Fish Oil is Contaminated

Article Number 3

Both farm raised and ocean fish oil contains carcinogens.

Contaminant were significantly higher in farmed Atlantic salmon than those in wild Pacific salmon.

More toxaphene, dioxin, dieldrin and PCBs.

More polychlorinated biphenyls (PCBs), dioxins, toxaphene, and dieldrin were determined in 459 farmed Atlantic salmon.

The same results in salmon from supermarkets.

Salmon, especially farmed salmon, contain high concentrations of organochlorine compounds such as PCBs, dioxins, and chlorinated pesticides. Because ground up dried ocean fish supplies the omega oils needed in the fish farms.

Article Number 4

A review of the evidence for fish Oil in 2020 from Harvard Medical School makes the following recommendation:

“In light of limited regulatory oversight and evidence of quality concerns, dietary fish oil supplements are not an appropriate substitute for FDA approved prescription ω -3 fatty acids for their indicated use in treatment of elevated triglycerides or the prevention of cardiovascular events.”

How do we fix our Parent Omega-3 and Omega-6 intake?

First, use organically grown plant oils.

Test the sources to verify oils are contaminate free.

The ratio of omega-6 to omega-3 should be about [2.5/1](#) based on article Number 1 below.

Article Number 5:

The hunter-gatherers did not eat grains, so they used more omega-3 for energy. Their omega-6 to omega-3 was about [1/1](#).

References

Article Number 1

Review

[Exp Biol Med \(Maywood\)](#)

actions:

. 2008 Jun;233(6):674-88. doi: 10.3181/0711-MR-311. Epub 2008 Apr 11.

The importance of the omega-6/omega-3 fatty acid ratio in cardiovascular disease and other chronic diseases

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- PMID: 18408140 DOI: [10.3181/0711-MR-311](https://doi.org/10.3181/0711-MR-311)

Abstract

Several sources of information suggest that human beings evolved on a diet with a ratio of omega-6 to omega-3 essential fatty acids (EFA) of approximately 1 whereas in Western diets the ratio is 15/1-16.7/1. Western diets are deficient in omega-3 fatty acids, and have excessive amounts of omega-6 fatty acids compared with the diet on which human beings evolved and their genetic patterns were established. Excessive amounts of omega-6 polyunsaturated fatty acids (PUFA) and a very high omega-6/omega-3 ratio, as is found in today's Western diets, promote the pathogenesis of many diseases, including cardiovascular disease, cancer, and inflammatory and autoimmune diseases, whereas increased levels of omega-3 PUFA (a lower omega-6/omega-3 ratio), exert suppressive effects. In the secondary prevention of cardiovascular disease, a ratio of 4/1 was associated with a 70% decrease in total mortality. A ratio of 2.5/1 reduced rectal cell proliferation in patients with colorectal cancer, whereas a ratio of 4/1 with the same amount of omega-3 PUFA had no effect. The lower omega-6/omega-3 ratio in women with breast cancer was associated with decreased risk. A ratio of 2-3/1 suppressed inflammation in patients with rheumatoid arthritis, and a ratio of 5/1 had a beneficial effect on patients with asthma, whereas a ratio of 10/1 had adverse consequences. These studies indicate that the optimal ratio may vary with the disease under consideration. This is consistent with the fact that chronic diseases are multigenic and multifactorial. Therefore, it is quite possible that the therapeutic dose of omega-3 fatty acids will depend on the degree of severity of disease resulting from the genetic predisposition. A lower ratio of omega-6/omega-3 fatty acids is more desirable in reducing

the risk of many of the chronic diseases of high prevalence in Western societies, as well as in the developing countries.

Article Number 2

Autism

. 2020 Jul;24(5):1191-1200. doi: 10.1177/1362361319877792.
Epub 2020 Jan 21.

Maternal polyunsaturated fatty acids and risk for autism spectrum disorder in the MARBLES high-risk study

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- PMID: 31958995 DOI: [10.1177/1362361319877792](https://doi.org/10.1177/1362361319877792)

Abstract

Prior studies suggest that maternal polyunsaturated fatty acids intake during pregnancy may have protective effects on autism spectrum disorder in their children. However, they did not examine detailed timing of maternal polyunsaturated fatty acid intake during pregnancy, nor did they evaluate plasma concentrations. **This study investigates whether maternal polyunsaturated fatty acids in defined time windows of pregnancy, assessed by both questionnaires and biomarkers, are associated with risk of autism spectrum disorder and other non-typical development in the children.** Food frequency questionnaires were used to estimate maternal

polyunsaturated fatty acid intake during the first and second half of pregnancy. Gas chromatography measured maternal plasma polyunsaturated fatty acid concentrations in the third trimester. In all, 258 mother-child pairs from a prospective cohort were included. **All mothers already had a child with autism spectrum disorder and were planning a pregnancy or pregnant with another child.** Children were clinically assessed longitudinally and diagnosed at 36 months. For polyunsaturated fatty acid intake from questionnaires, **we only found mothers consuming more omega-3 in the second half of pregnancy were 40% less likely to have children with autism spectrum disorder.** For polyunsaturated fatty acid concentrations in the third-trimester plasma, we did not observe any statistical significance in relation to the risk of autism spectrum disorder. **However, our study confirmed associations from previous studies between higher maternal docosahexaenoic acid and eicosapentaenoic acid plasma concentrations in the late pregnancy and reduced risk for non-typical development.** **This study markedly advanced understandings of whether and when maternal polyunsaturated fatty acid intake influences risk for autism spectrum disorder and sets the stage for prevention at the behavioral and educational level.**

Keywords: autism; dietary fat; omega-3; omega-6; polyunsaturated fatty acids; pregnancy.

Article Number 3
Comparative Study
[Environ Sci Technol](#)

Actions:

. 2005 Nov 15;39(22):8622-9. doi: 10.1021/es050898y.

Lipid composition and contaminants in farmed and wild salmon

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- PMID: 16323755 DOI: [10.1021/es050898y](#)

Abstract

Levels of omega-3 (n-3) and omega-6 (n-6) fatty acids and lipid-adjusted concentrations of polychlorinated biphenyls (PCBs), dioxins, toxaphene, and dieldrin were determined in 459 farmed Atlantic salmon, 135 wild Pacific salmon, and 144 supermarket farmed Atlantic salmon fillets purchased in 16 cities in North America and Europe. These were the same fish previously used for measurement of organohalogen contaminants. Farmed salmon had greater levels of total lipid (average 16.6%) than wild salmon (average 6.4%). The n-3 to n-6 ratio was about 10 in wild salmon and 3-4 in farmed salmon. The supermarket samples were similar to the farmed salmon from the same region. Lipid-adjusted contaminant levels were significantly higher in farmed Atlantic salmon than those in wild Pacific salmon ($F = 7.27$, $P = 0.0089$ for toxaphene; $F = 15.39$, $P = 0.0002$ for dioxin; $F > \text{or} = 21.31$, $P < 0.0001$ for dieldrin and PCBs, with $df = (1.64)$ for all). Levels of total lipid were in the range of 30-40% in the fish oil/fish meal that is fed to farmed salmon. Salmon, especially farmed salmon, are a good source of healthy n-3 fatty acids, but they also contain high concentrations of organochlorine compounds such as PCBs, dioxins, and chlorinated pesticides. The presence of these contaminants may reduce the net health

benefits derived from the consumption of farmed salmon, despite the presence of the high level of n-3 fatty acids in these fish.

Article Number 4

Review

Curr Opin Lipidol

actions:

. 2020 Apr;31(2):94-100. doi: 10.1097/MOL.0000000000000665.

Are dietary fish oil supplements appropriate for dyslipidemia management? A review of the evidence

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- PMID: 32022752 PMCID: [PMC7069411](#) DOI: [10.1097/MOL.0000000000000665](#)

Free PMC article

Abstract

Purpose of review: The purpose of this review is to assess whether dietary fish oil supplements can be appropriate for patients with elevated triglycerides and cardiovascular risk based on a comprehensive analysis of their composition, and level of regulatory oversight.

Recent findings: Approximately 19 million people in the United States take fish oil supplements, many for the purpose of treating or preventing heart disease. Unlike prescription products, fish oil supplements are classified as food by the Food and Drug Administration (FDA) and are not required to undergo manufacturing oversight or clinical testing. Analysis of widely used dietary fish oil supplements show that they may have lower amounts of ω -3 than advertised as well as significant levels of saturated

fat and oxidized oils which actually may contribute to dyslipidemia.

Clinical outcome trials have failed to show a consistent cardiovascular benefit with fish oil supplements and other low-dose mixed ω -3 fatty acids.

Summary: In light of limited regulatory oversight and evidence of quality concerns, dietary fish oil supplements are not an appropriate substitute for FDA approved prescription ω -3 fatty acids for their indicated use in treatment of elevated triglycerides or the prevention of cardiovascular events.

Article Number 5:

<https://thepaleodiet.com/>

Hunter-gatherer's exercise habits

Kim Hill, Ph.D., an anthropologist at Arizona State University, has spent the last 30 years living and studying the Achè hunter-gatherers of Paraguay and the Hiwi of southwestern Venezuela. He is one of the few people who has experienced what it is like to “run with the hunt”. He observed that, in a single day, the Achè traveled an average of 10 to 12 kilometers at a pace of 1.5 – 3 km/hour, with the occasional 20-30-second sprint. (A swift pace given the thick vegetation of their environment.) This lasted for seven to nine hours per day, with little to no rest. The only days they refrained from hunting were when it rained, which averaged one to two days per week in the rainforest.