

Nutrition and Health Info Sheet

OMEGA-3 FATTY ACIDS

Produced by:
Lisa Huang
Puja KC
Sarah Liu
Taylor Berggren, MS
Anna Jones, PhD
Rachel E. Scherr, PhD
Sheri Zidenberg-Cherr, PhD
Center for Nutrition in Schools
Department of Nutrition
University of California, Davis
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What are omega-3 fatty acids?

Omega-3 fatty acids are a type of fat that are important to human health. These fatty acids are found mostly in fish and plant oils.¹ There are 3 main types of Omega-3 fatty acids: α -linolenic acid (ALA), eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA).² Consumption of omega-3 fatty acids is an important part of a healthy diet.³

What are the health benefits of omega-3 fatty acids?

Role of Omega-3 Fatty Acids in Inflammation and Chronic Disease Prevention

Omega-3 fatty acids help maintain body temperature and reduce inflammation. Inflammation is one of the ways the body fights infection and recovers from injury. However, long-term inflammation can lead to serious diseases like heart disease, cancer, and other illnesses.^{4,5} Omega-3 fatty acids may also help reduce symptoms of asthma, depression, and some autoimmune diseases.⁶

Omega-3 Fatty Acid and Pregnancy

Consuming omega-3 fatty acids may improve pregnancy outcomes. An increase in dietary omega-3s during pregnancy has been shown to benefit both the mother and baby. Consuming DHA during pregnancy is important for brain and eye development of the baby and has been shown to lower the severity of cold symptoms in infants.⁷



What are the current recommendations for consumption of omega-3 fatty acids?

The Dietary Guidelines for Americans 2015-2020 recommends 450-500 milligrams of omega-3 fatty acids per day.^{2,3} Those with coronary heart disease should consume 1 gram of omega-3 fatty acid per day, preferably from fatty fish.⁹

What is the omega-3 fatty acid content of commonly consumed fish?

Some common seafood items with omega-3 fatty acids are salmon, tilapia, oyster, herring, and canned tuna. Examples of plant oils and nut/seeds that are good sources of omega-3 fatty acids include: flaxseed oil, canola oil, walnut oil, canola oil, olive oil, flaxseed, walnuts, pistachio, pumpkin and squash seeds, and pine nuts.⁸

Table 1: Omega-3 fatty acid content of commonly consumed seafood

Fish (Raw)	ALA (mg/3oz)	EPA (mg/30z)	DHA (mg/3oz)
Catfish	46	14	48
Clams	13	37	54
Cod	0	19	38
Crab	7	24	0
Flounder or Sole	15	93	117
Grouper	8	23	187
Halibut	9	56	109
Herring	88	603	733
Lobster	37	87	58
Mahi Mahi	4	17	75
Orange Roughy	3	13	3
Oyster	139	230	300
Red Snapper	3	43	221
Salmon	126	733	938
Shrimp	2	26	26
Tilapia	38	6	100
Tuna, canned	1	8	56

What is the omega-3 fatty acid content of commonly consumed plant oils, nuts, and seeds?

Examples of plant oils and nut/seeds that are good sources of omega-3 fatty acids include: flaxseed oil, canola oil, walnut oil, canola oil, olive oil, flaxseed, walnuts, pistachio, pumpkin and squash seeds, and pine nuts.⁸



Table 2: Omega-3 fatty acid content of commonly consumed plant oils

Plant Oils	ALA (mg/1 tbsp)	EPA (mg/1 tbsp)	DHA (mg/1 tbsp)
Olive Oil	46	14	48
Soybean Oil	923	0	0
Canola Oil	1279	0	0
Corn Oil	158	0	0
Walnut Oil	38	6	100
Flaxseed Oil	6703	0	0
Coconut Oil	3	0	0

Table 3: Omega-3 fatty acid content of commonly consumed nuts and seeds

Nuts/Seeds	ALA (mg/1 Cup)	EPA (mg/1 Cup)	DHA (mg/1 Cup)
Brazil nuts	24	0	0
Pine Nuts	151	0	0
Pistachio	261	0	0
Walnuts, black	3,346	0	0
Almonds	4	0	0
Peanuts	37	0	0
Pumpkin and Squash Seeds	155	0	0
Sunflower Seeds	103	0	0
Flaxseed	38,3326	0	0

What are the current recommendations for fish consumption?

The American Heart Association recommends at least 12 ounces of different types of fatty fish each week. One serving of fish is about 3 ounces.⁹



Who is at risk for mercury exposure?

Eating fish with higher levels of mercury can expose you to mercury. Long-term mercury exposure can lead to many negative health effects, including abnormal brain growth in babies and damage to the heart and kidneys in children.^{10,11} Women who are or may become pregnant, breastfeeding mothers, young children and teens are at greatest risk.¹⁰

The United States Food and Drug Administration and the United States Environmental Protection

Agency encourage these individuals to avoid eating swordfish, tilefish, king mackerel, and shark, the four fish with the most mercury. Instead, one should choose seafood low in mercury. Scallops, shrimp, clams, salmon and crab are commonly consumed types of seafood in the U.S. that are low in mercury.¹²

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