



## Food Sources: Essential Fatty Acids

Essential Fatty Acids (EFAs) cannot be created by the body; they are called “essential” because they must be obtained through the diet. There are two primary families of essential fatty acids: Omega-6 and Omega-3.

Linoleic acid (LA) and Arachidonic acid (AA) are two common omega-6 fatty acids. LA is found in most plant oils, and AA is present in meat, poultry, and eggs. Alpha-linolenic acid (ALA), eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA) are the most common omega-3 fatty acids. ALA is found in some plant foods, and EPA/DHA in fatty fish.

Every cell in the body needs EFAs for proper structure and function. EFAs promote healthy nerve activity, help produce hormones, and play a role in inflammation. The established AIs below suggest a higher ratio of omega-6s to omega-3s, however, some research suggests that ratios 4:1 and lower may reduce inflammation and lower the risk of chronic disease. Emphasis should be placed on increasing EPA and DHA omega-3 consumption.

The Adequate Intake (AI) for omega-6 fatty acids is as follows:

- **Females, ages 19-50:** 12 grams per day
- **Females, ages 51+:** 11 grams per day
- **Females (pregnant, lactating):** 13 grams per day
- **Males, ages 19-50:** 17 grams per day
- **Males, ages 51+:** 14 grams per day

Food, Standard Serving Size	Amount of LA Omega-6s (g)
Safflower oil, 1 Tbsp	10.1
Sunflower seeds (oil roasted), 1 ounce/~¼ cup	9.7
Pine nuts, 1 ounce/~¼ cup	9.4
Sunflower oil, 1 Tbsp	8.9
Corn oil, 1 Tbsp	7.3
Soybean oil, 1 Tbsp	6.9
Pecans (oil roasted), 1 ounce/~19 halves	6.4
Brazil nuts, 1 ounce/~6 nuts	5.8

The Adequate Intake (AI) for omega-3 fatty acids is as follows:

- **Females, ages 19+:** 1.1 grams per day
- **Females (pregnant), ages 19-50:** 1.4 grams per day
- **Males, ages 19-50:** 1.3 grams per day
- **Males, ages 51+:** 1.6 grams per day

Food, Standard Serving Size	Amount of Omega-3s (g)
Flaxseed oil, 1 Tbsp	7.3 (ALA)
Chia seeds, 1 ounce/~2 Tbsp	5.1 (ALA)
Walnuts, 1 ounce/~14 halves	2.6 (ALA)
Flaxseed (whole), 1 Tbsp	2.4 (ALA)
Atlantic salmon (cooked), 3 ounces	1.8 (EPA/DHA)
Atlantic herring (cooked), 3 ounces	1.7 (EPA/DHA)
Sardines (canned), 3 ounces	1.2 (EPA/DHA)
Atlantic mackerel (cooked), 3 ounces	1.0 (EPA/DHA)

### References

1. U.S. Department of Health and Human Services, National Institutes of Health, Office of Dietary Supplements. Omega-3 fatty acids. <https://ods.od.nih.gov/factsheets/Omega3FattyAcids-HealthProfessional/>. Updated November 21, 2018. Accessed January 22, 2019.
2. U.S. Department of Agriculture, Agricultural Research Service, Nutrient Data Laboratory. USDA National Nutrient Database for Standard Reference, Legacy Version. Current: April 2018. Internet: <https://ndb.nal.usda.gov/ndb/>. Accessed January 22, 2019.
3. Oregon State University, Linus Pauling Institute, Micronutrient Information Center. Essential fatty acids. <https://lpi.oregonstate.edu/mic/other-nutrients/essential-fatty-acids#introduction>. Reviewed May 2014. Accessed January 22, 2019.