



Omega-3 Fatty Acids

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What are Omega-3 fatty acids?

Omega-3 fatty acids are _____ that are found in various foods.

The three forms of Omega-3 fatty acids are:

- 1.
- 2.
- 3.

_____ and _____ are found in the brain.

How do Omega-3 fatty acids promote health?

Strong scientific evidence shows that Omega-3 fatty acids are important for promotion of health in the _____, and prevention of symptoms of _____ and _____ by acting in the brain.

What is the Evidence for Omega-3 and Health Promotion?

Su, et al., 2018. –

- Omega-3 fatty acid supplementation **improves** symptoms of anxiety as evidenced in this metanalysis, including 16 trials.
- Study findings established that optimal supplementation for improvement of anxiety symptom.

Liao, et al., 2019. –

- Omega-3 fatty acid supplementation significantly **decreases** depression symptoms in this metanalysis.
- Higher dose of Omega-3 fatty acids may hamper the activity of the CYP2D6 and CYP2A4, enzymes which metabolize drugs.

What are the Mechanisms for the Health Effects Yoga?

- Decreases Inflammation
- Protects Neurons
- Inhibits Depression
- Inhibits Hyperactivation of the Hypothalamic-Pituitary-Adrenal Axis

**What foods are Omega-3 Fatty Acids found in?**

Put a star next to the foods you would enjoy incorporating the most.

Animal sources	Plant sources
•	•
•	•
•	•
•	•
•	•
•	•
•	•

Recommended preparation and cooking methods for Omega-3 rich foods that you would like to try –

Omega-3 Fatty Acids Foods

Food	1 Grams per serving		
	ALA	EPA	DHA
Flaxseed oil, 1 tbsp	7.26		
Chia seeds, 1 ounce	5.06		
English walnuts, 1 ounce	2.57		
Flaxseed, whole, 1 tbsp	2.35		
Salmon, Atlantic, farmed cooked, 3 ounces		1.24	0.59
Salmon, Atlantic, wild, cooked, 3 ounces		1.22	0.35
Canola oil, 1 tbsp	1.28		
Salmon, pink, canned, drained, 3 ounces*	0.04	0.63	0.28
Soybean oil, 1 tbsp	0.92		
Mayonnaise, 1 tbsp	0.74		
Edamame, frozen, prepared, ½ cup	0.28		
Shrimp, cooked, 3 ounces*		0.12	0.12
Tuna, light, canned in water, drained, 3 ounces*		0.17	0.02
Kidney beans, canned ½ cup	0.10		
Ground beef, 85% lean, cooked, 3 ounces**	0.04		



Bread, whole wheat, 1 slice	0.04		
Egg, cooked, 1 egg		0.03	
Chicken, breast, roasted, 3 ounces		0.02	0.01
Milk, low-fat (1%), 1 cup	0.01		

*Except as noted, the USDA database does not specify whether fish are farmed or wild caught.

**The USDA database does not specify whether beef is grass fed or grain fed.

Identifying or Adapting a Recipe with Omega-3 Fatty Acid

Select a recipe you would enjoy from a website or have enjoyed in the past and if needed modify it to include foods high in Omega-3. Below are some recipe websites if you want to discover a new recipe. Tip for searching websites: Using the search feature, you can search for a recipe by an ingredient (i.e. Salmon) or nutrient (i.e. Omega-3).



BBC Good Food



All Recipes



Simply Recipes

Recipe you would like to try:

Identify the food(s) containing Omega-3 Fatty Acids in the recipe and list their in one serving (i.e. Salmon, 3 ounces):

Using the table on the first page, estimate the amount of Omega-3 Fatty Acids found in one serving:

Was the food you identified above a part of the original recipe or was it added by you to adapt the recipe?

Other recipes you would like to try:

Omega-3 Fatty Acids Debrief

Consider the following questions on promoting Omega-3 Fatty Acids in your diet:

- Discuss tips for making food high in Omega-3 fatty acids more appetizing.
- Where to buy food containing Omega-3 fatty acids at a reasonable cost.



- Strategies to encourage family members to eat foods containing Omega-3 fatty acids.

References

Grosso, G., Micek, A., Marventano, S., Castellano, S., Mistretta, A., Pajak, A., & Galvano, F. (2016). Dietary n-3 PUFA, fish consumption and depression: A systematic review and meta-analysis of observational studies. *Journal of Affective Disorders*, 205, 269-281. <https://doi.org/10.1016/j.jad.2016.08.011>

Liao, Y., Xie, B., Zhang, H., He, Q., Guo, L., Subramanieapillai, M., Fan, B., Lu, C., & McIntyre, R. S. (2019). Efficacy of omega-3 PUFAs in depression: A meta-analysis. *Translational Psychiatry*, 9(190). <https://doi.org/10.1038/s41398-019-0515-5>

National Institute of Health: Office of Dietary Supplements. (2023, February 15). Omega-3 Fatty Acids: Fact sheet for health professionals. <https://ods.od.nih.gov/factsheets/Omega3FattyAcids-HealthProfessional/>

Norwitz, N. G., & Naidoo, U. (2021). Nutrition as metabolic treatment for anxiety. *Frontiers in Psychiatry*, 12(598119). <https://doi.org/10.3389/fpsy.2021.598119>

Su, K., Tseng, P., Lin, P., Okubo, R., Chen, T., Chen, Y., & Matsuoka, Y. (2018). Association of use of Omega-3 polyunsaturated fatty acids with changes in severity of anxiety symptoms: A systematic review and meta-analysis. *JAMA Network Open*, 1(5):e182327, <https://doi.org/10.1001/jamanetworkopen.2018.2327>

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