

A Guide to Cooking Oils: Nutrition and Applications

Plant-based oils like soybean, canola, olive, and avocado are **heart-smart sources of essential fatty acids**

Omega-3 Fatty Acids VS Omega-6 Fatty Acids

What's the proper ratio?

According to health authorities, there is **no agreed-upon omega-6 to omega-3 ratio**.

The World Health Organization **advises consuming enough of both**, which can be met easily with plant-based oils such as **soybean** and **canola oil**, as they provide both types of fatty acids.¹

Beef tallow VS Plant-based oils

What's the difference?

Beef tallow comes from beef and is **high in saturated fat**, while plant-based oils like soybean and canola contain **essential polyunsaturated fats (PUFAs)** that **may reduce heart disease risk**.^{2,4,5}

The American Heart Association recommends consuming **under 6% of total calories from saturated fat and replacing it with PUFAs** (omega-6 and omega-3) to **improve cholesterol and support heart health**.³

THE TAKEAWAY:

Prioritize oils with **polyunsaturated fatty acids (PUFAs)** and **monounsaturated fatty acids (MUFAs)**, and **limit saturated fats** from sources like butter, in line with American Heart Association and World Health Organization guidance.

Match the oil to the cooking method for the best results.

Explore more evidence-based information on cooking oils at ussoy.org/allaboutseedoils.



What oils are best for cooking?



Moderate to low heat:
Sesame (~410°F)
Canola (~400°F)
Olive (~375°F)



High heat:
Avocado (~520°F)
Soybean (~450°F)
Corn (~450°F)



OIL	PUFA	Linoleic Acid	MUFA	ALA	Saturated	Best Cooking Uses
Grapeseed	69.9	69.6	16.1	0.1	9.6	Best for sautéing, stir-frying, roasting, dressings, marinades
Soybean	57.7	51.0	22.8	6.8	15.6	Neutral flavor, evidence for heart health ; ⁴ good for high-heat cooking, frying, sautéing, grilling, baking, marinades
Corn	54.7	53.5	27.6	1.2	12.9	Good for high-heat cooking, evidence for heart health ; ⁵ frying, sautéing, grilling, baking
Cottonseed	51.9	55.5	17.8	0.2	25.9	Used in snack foods, stable at high heat for frying
Sesame	41.7	41.3	39.7	0.3	14.2	Common in Asian cooking; used for dressings, stir-fries
Rice bran	35.0	33.4	39.3	1.6	19.7	Used for frying, sautéing, roasting
Sunflower	29.0	28.9	57.3	<0.1	9.0	Good for roasting, sautéing, salad dressings, light frying
Canola	28.1	19.0	63.3	9.1	7.4	Neutral flavor, evidence for heart health ; ⁶ good for high-heat cooking, frying, sautéing, grilling, baking, marinades
Peanut	19.9	19.6	57.1	0.0	16.2	Stable at high heat for frying, stir-frying, and grilling; subtle nutty flavor
Avocado	13.5	12.5	70.6	1.0	11.6	Good for grilling, roasting, sautéing, salad dressings; mild buttery taste
Safflower	12.8	12.7	75.2	0.1	7.5	Used for high-heat cooking, frying, sautéing, grilling
Olive	10.5	9.8	73.0	0.9	13.8	Common in Mediterranean dishes, evidence for heart health ; ⁷ roasting, salad dressings/finishing
Coconut	1.7	2.0	6.31	0.0	82.5	Good for baking or as spread or topping; distinct coconut flavor unless refined

Table 1. Fatty acid content of selected oils (g/100 g) listed in order of total PUFA content. Source: USDA FoodData Central, Standard Release Database. <https://fdc.nal.usda.gov/>.

1 <https://www.who.int/news/item/17-07-2023-who-updates-guidelines-on-fats-and-carbohydrates>.

2 Messina M, Shearer G, Petersen K. Soybean oil lowers circulating cholesterol levels and coronary heart disease risk, and has no effect on markers of inflammation and oxidation. Nutrition. 2021 Sep;89:111343. doi: 10.1016/j.nut.2021.111343. Epub 2021 May 16. PMID: 34171740. <https://pubmed.ncbi.nlm.nih.gov/34171740/#:~:text=Soybean%20oil%20lowers%20circulating%20cholesterol,markers%20of%20inflammation%20and%20oxidation>.

3 <https://www.heart.org/en/health-topics/cholesterol/prevention-and-treatment-of-high-cholesterol-hyperlipidemia/the-skinny-on-fats#:~:text=For%20people%20who%20need%20to,of%20heart%20disease%20and%20stroke>.

4 <https://www.fda.gov/media/106649/download>.

5 <http://wayback.archive-it.org/7993/20171114183649/https://www.fda.gov/Food/IngredientsPackagingLabeling/LabelingNutrition/ucm072956.htm>.

6 <https://wayback.archive-it.org/7993/20171114183734/https://www.fda.gov/Food/IngredientsPackagingLabeling/LabelingNutrition/ucm072958.htm>.

7 <https://wayback.archive-it.org/7993/20171114183732/https://www.fda.gov/Food/IngredientsPackagingLabeling/LabelingNutrition/ucm072963.htm>.