



Coconut Oil



Coconut Oil in Cooking and Health

Coconut oil has become increasingly popular over the last several years. It is added to coffee beverages and smoothies, mixed into baked goods, used for sautéing and stir-frying, and is emerging as a base ingredient for sauces and salad dressings. Coconut oil is making its way into kitchens and diets in part because of its purported health benefits. Because of this, coconut oil warrants a closer look.

Where does coconut oil come from?

Coconuts and coconut products come primarily from Asia, with over 70% of the production coming from the Philippines, Indonesia and India.¹ While commonly mistaken for a nut, the coconut is actually a fruit rich in key minerals, fiber and energy. Coconut oil is extracted from the flesh of fresh coconuts. It is available for purchase in grocery stores, health or specialty food stores, and online.

Coconut oil is a dietary fat

Coconut oil is 100% fat.* Dietary fats are generally characterized as either saturated or unsaturated based on the degree of saturation. Unsaturated fats are further divided into monounsaturated and polyunsaturated subcategories. As a rule, at room temperature saturated fats are solid and unsaturated fats are liquid. Typically, plant-based oils are rich in unsaturated fats, while animal fats are primarily saturated.

Coconut

1 cup shredded meat
~300 calories

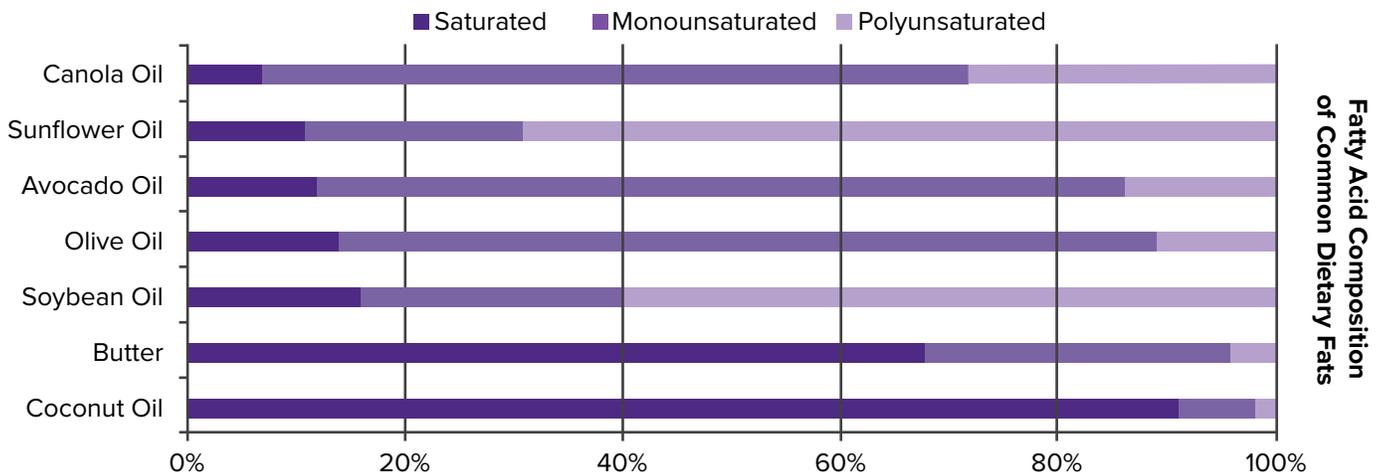
Excellent source of:

- Manganese (1.2 mg)
- Copper (0.35 mg)
- Fiber (7.2 gm)

Good source of:

- Selenium (8.08 ug)
- Phosphorous (90.4 mg)
- Iron (1.94 mg)
- Zinc (0.88 mg)

Source: USDA Agricultural Research Service, FoodData Central, 2018



Source: USDA Agricultural Research Service, FoodData Central, 2018

*Dietary fats are generally structured as triglycerides, which are three fatty acids bound together chemically.

Coconut oil is an exception to this rule. It has a very high concentration of saturated fats (greater than 90%). Because of this, coconut oil is typically grouped with animal fats, such as butter. Its structure is responsible for its cooking properties and its association to health.

Coconut oil in the kitchen

Coconut oil can be purchased as either virgin or refined coconut oil. Virgin coconut oil is commonly used in cooking and baking. It can take the place of butter in sauces. It also works well for pie crusts because, like butter, it is solid at room temperature and has a moderately high smoke point. Refined coconut oil tends to be used for salad dressings.

Virgin vs. refined oil:

According to the Academy of Nutrition & Dietetics,² Virgin coconut oil is characterized by a sweet, light, nutty, coconut flavor. It functions well for baking or sautéing at temperatures up to 350 degrees Fahrenheit, which is its smoke point. Coconut oil is suggested as the oil of choice when cooking curries or other tropical dishes in which the coconut essence enhances the taste.

Refined coconut oil is a more neutral tasting oil, imparting no discernible flavor. It functions well for baking and for medium-high heat stir-frying up to 425 degrees Fahrenheit (the refined oil has a higher smoke point). Note that other, more unsaturated oils, such as safflower and avocado, have even higher smoke points, (510 F and 521 F, respectively) and can better accommodate higher heat cooking. These, along with other unsaturated oils like extra virgin olive oil, cottonseed oil, refined peanut oil and sunflower oil, are generally considered healthy options.

Hydrogenated coconut oil is also available in the marketplace. However, like all hydrogenated fats, it is a source of trans fats, which should be avoided in the diet.

In general, using coconut oil in cooking and baking does not change the amount of fat in a food or a meal, but over time, it could influence health.

Virgin vs. Refined Oils

- Virgin oils are minimally processed and pressed (not heated) for extraction. This conserves the antioxidant capacity of the oil.
- Refined oils are further processed with heat or chemicals, removing even more of the trace nutrients. These oils tend to have a higher smoke point.
- Oils can also be partially hydrogenated to solidify and extend shelf life. However, hydrogenation generates harmful trans fats.

Coconut oil and health

Coconut oil has a unique composition compared to other dietary fats. More than half of the saturated fats in coconut oil are classified as medium-chain fatty acids³; most plant and animal fats are composed of long-chain fatty acids. Medium-chain fatty acids are more easily digested and utilized differently, making them less likely to be stored as body fat.³ Coconut oil is among the highest natural sources of Lauric acid, a medium-chain fatty acid that has anti-microbial properties and can raise HDL (good) cholesterol.^{4,5} Virgin coconut oil also contains polyphenols that give rise to antioxidant and anti-inflammatory properties.⁶ For these reasons, coconut oil is being studied for its influence on a variety of chronic diseases or conditions. At this time, the science is limited and still inconclusive:

- **Obesity and diabetes^{3,7}** — Medium-chain fatty acids isolated from coconut oil prevent obesity and insulin resistance in some animal studies. Short-term studies in humans have demonstrated a similar effect.
- **Hypertension⁸** — Animal studies suggest that virgin coconut oil has the potential to reduce the development of hypertension (high blood pressure), possibly by imparting protection to the kidneys, through its antioxidant function.
- **Alzheimer's disease⁹** — A handful of human and animal studies have suggested that coconut oil might increase cognitive function in cases of Alzheimer's disease. But overall, the limited evidence does not demonstrate therapeutic value of coconut oil for those with Alzheimer's disease.
- **Gut microbiome¹⁰** — Scientists are beginning to recognize the importance of the gut microbiome and its role in human health and chronic disease. In animal studies, coconut oil consumption has been shown to increase beneficial bacteria.

- **Heart disease^{11, 12}** — At this time, no causal relationship between coconut oil and heart disease has been established; however, saturated fats have long been recognized by the American Heart Association and other health practitioners to increase LDL (bad) cholesterol, a major risk factor for heart disease.
- A recent systematic comparison of coconut oil with nontropical vegetable oils and animal fats concluded that coconut oil raised total and LDL (bad) cholesterol more than vegetable oils but less than animal fats. Elevated LDL and total cholesterol are strongly associated with an increased risk of heart disease. The study also demonstrated that coconut oil increases HDL (good) cholesterol more than the other oils, and this provides a protective effect against heart disease.
- Additionally, observational studies have highlighted low levels of cardiovascular disease among south Asian countries where residents consume coconut as their primary dietary fat.

Cholesterol & Heart Disease

- LDL (bad) cholesterol is associated with fatty deposits in arteries.
- HDL (good) cholesterol regulates cholesterol and helps maintain “clean” arteries.
- Total cholesterol is the sum of LDL, HDL and 20% triglycerides.

✓ Many dietary and lifestyle factors contribute to heart health. It is important to consider this when evaluating the potential benefits of integrating coconut oil into a Western/standard American diet, which is typically higher in saturated animal fats.

Fats/coconut oil as part of a healthy diet

Dietary fats play an important role in our health, and coconut oil is one of many sources of saturated fat to consider when preparing healthy, balanced meals. But coconut oil and all oils/fats are calorie dense and should be consumed in moderation. The U.S. Dietary Guidelines recommend limiting saturated fats to less than 10% of calories per day. The American Heart Association recommends a diet of only 5-6% saturated fats.

While some research suggests coconut oil may be a beneficial addition to your pantry, other research indicates the need for caution. To limit saturated fats overall, select unsaturated fats like olive, avocado and canola oil for routine/ everyday food preparation. Use small amounts of virgin coconut oil in place of other saturated fats, such as butter, when its distinct flavor and texture are preferred. This is a small but effective step you can take to achieve a healthier eating pattern.

U.S. Dietary Guidelines

- 2020 guidelines recommend limiting consumption of saturated fats to less than 10% of calories per day.
- Assuming no other dietary source of saturated fat (e.g., meats, cheese, ice cream), this is about two tablespoons of coconut oil a day.
- The American Heart Association recommends about half that much.

Spiced Popcorn with Pecans and Raisins

Makes: 8 servings

Ingredients

- 5 cups popped popcorn
- 2 cups Louisiana pecans
- 2 tablespoons virgin coconut oil
- 1 teaspoon ground cinnamon
- 1 teaspoon kosher salt
- 1 teaspoon paprika
- 1 teaspoon ground turmeric
- 1/2 teaspoon cayenne pepper
- 1/2 teaspoon ground ginger
- 1/2 teaspoon ground nutmeg
- 2 tablespoons Louisiana cane syrup
- 1 cup golden raisins

Preparation

1. Preheat oven to 300 degrees. Toss popcorn with Louisiana pecans.
2. Add coconut oil in a small skillet over low heat. Add cinnamon, salt, paprika, turmeric, cayenne, ginger and nutmeg and cook, stirring, 30 seconds. Stir in Louisiana cane syrup. Pour over popcorn mixture and mix to coat.
3. Spread out on a rimmed baking sheet and bake, tossing every 10 minutes, until dry and nuts are toasted, 30-40 minutes. Let cool; toss in raisins.

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