

## FLAVORFUL NUTS

Nuts are crunchy, versatile, flavorful, and loaded with nutrition. Each variety of nut is high in protein and fiber, is cholesterol-free and has negligible amounts of sodium unless salted. Each variety of nut has its own combination of vitamins and minerals, including calcium, iron, magnesium, copper, zinc, potassium, and/or phosphorus. Add plant sterols and heart-healthy mono and polyunsaturated fats to the list and you see why the U.S. Food and Drug Administration approved the health claim that 1.5 ounces of (42.5 g) of nut intake may reduce the risk of cardiovascular disease. Clinical studies show nuts can bring down LDL (bad) cholesterol in the blood, without affecting the level of HDL (good) cholesterol. Continued research is also exploring how making nuts a part of a healthy diet may help regulate weight. Nuts are also considered a part of the protein food group, with a half-ounce of nuts considered as a one-ounce protein equivalent. Let's explore the varieties of nutrient-packed nuts.

### ALMONDS

Almonds are the world's most widely grown and popular nut. Today, 70% of the fruit of the almond tree comes from the U.S., with the rest grown in the Mediterranean, Australia, and South Africa. According to the U.S. Department of Agriculture, almonds have the highest amount of fiber of all nuts, nearly 4 grams per 1 ounce serving. They are also a source of calcium, magnesium, folic acid, and vitamin E. Toasting almonds intensifies their flavor and adds crunch. You can find almonds in your grocery aisle either whole, sliced, or slivered. Almond flour is often used in baked goods. Almond milk is an alternative for those



who are lactose intolerant. Almond butter, as a substitute for peanut butter, is popular as well. Environmentally, almonds are quite controversial, especially in California where draught conditions are causing water shortages. Experts estimate that it takes 1.1 gallons of water to produce one almond.

To toast almonds or other nuts, spread whole, chopped, or sliced nuts in a thin layer in a shallow baking pan. Bake for 5 to 10 minutes in a 350 degree F oven or until light golden brown, stirring frequently to prevent scorching. Sliced and chopped nuts brown faster than whole nuts and will continue to brown even after removing from the oven.

### BRAZIL NUTS

Brazil nuts come from the seed of a giant tree that grows only in South America's Amazon rainforest. The seeds come in clusters of up to 24 inside a hard pod that resembles a coconut. One Brazil nut can provide more than 100% of the recommended daily allowance for the mineral selenium. As a result, you should eat these nuts as an every-now-and-then snack instead of an everyday nut.

High fat content gives the Brazil nut a creamy texture. The oil is often used in shampoos, soaps, hair conditioners, and skin-care products. To shell Brazil nuts, cover with cold water and bring to a boil for three minutes. Drain, cover again with cold water, and wait 1 minute. Drain and crack. Try Apricot Brazil Nut Energy Balls for a sweet treat from <https://thehealthfulideas.com/apricot-brazil-nut-energy-balls/#tasty-recipes-6441-jump-target>.

## CASHEWS

India and the Ivory Coast produce the most commercial cashews today. They are an excellent source of copper and magnesium. Cashews are usually roasted and lightly salted or covered in chocolate. This kidney-shaped nut grows out from the bottom of the cashew apple. It is a laborious process to pick and prepare the nuts for sale, so this is why they are so expensive. Cashew nuts have a sweet, buttery flavor. The cashew apple is used in juices, wines, preserves, and liquor. Cashew shells have a highly toxic oil, which is used in paint, varnish, and rocket lubricants. Try the Chinese Cashew Chicken at <https://www.recipetineats.com/chinese-cashew-chicken/>.

## HAZELNUTS OR FILBERTS

Hazelnuts are often called filberts or cob nuts. They are rich in monounsaturated fat and the minerals copper and magnesium and vitamin E. They grow in clusters on the hazel tree. Most of the world's production happens in northern Turkey followed by Italy, Spain, and France. Almost all, 99%, of the hazelnuts grown in the U.S. come from Oregon. They are sweet, grape-sized nuts. You can use them in many sweet products, such as combining it with chocolate to make Nutella, but they can also add flavor and texture to savory items such as salads and main dishes. Hazelnuts have a bitter brown skin that is best removed. You can do this by heating them at 350 degrees F for 10 to 15 minutes, until the skins begin to crumble. You can remove most of the skin by placing a handful of nuts in a dish towel, then folding the towel over the warm nuts and rubbing vigorously. Make this hazelnut pesto



to mix with your favorite pasta dish or toss with your favorite salad at <https://oregonhazelnuts.org/recipe/hazelnut-pesto/>.

## MACADAMIA NUTS

Originating in Australia, macadamia nuts were once used only for decorative purposes. Today, the main production of the edible nut occurs in Hawaii, Australia, and New Zealand. Ounce-for-ounce, these nuts are among the most calorie-dense because they have one of the highest amounts of monounsaturated fats per serving. Macadamia nuts have a fleshy husk which protects the edible seed in the middle. Macadamias are mainly sold in the shelled form. You can buy them salted, unsalted, chocolate covered, or roasted. A popular way to incorporate macadamia nuts is in baked goods. Try macadamia nut crusted fish from <https://altonbrown.com/recipes/macadamia-nut-crusted-mahi-mahi/>.

## PEANUTS

In the U.S., the peanut wins the popularity contest. China, India, and Nigeria lead production, with the U.S. in fourth place. This nut is classified as a legume because the peanuts are harvested from underneath the ground. Americans eat around 7.9 pounds of peanuts and peanut products per person each year. Half of that is peanut butter. Most peanuts are made into oil or ground into butter. Peanuts are considered a good source of protein and fiber, so it is often used as a meat or other protein substitute. This summer salad has a twist with a peanut vinaigrette at <https://www.nationalpeanutboard.org/recipes/cucumber-tomato-salad-with-peanut-vinaigrette.htm>.

## PECANS

Pecans are native to America and widely grow in Georgia, followed by Texas and New Mexico. Globally, Mexico and South Africa also produce a lot of pecans. The polyphenols in pecans pack an anti-inflammatory punch and contribute to the most antioxidant properties of any other nut. The shell of the pecan is smooth and hard but thin. Peak season for picking off the tree is during the autumn months, but pecans are available shelled or unshelled all year long in airtight plastic bags. Eat pecans out of hand or use them in a variety of sweet and savory dishes. Try a refreshing Strawberry Pecan Salad at <https://www.californiastrawberries.com/strawberry-pecan-salad/>.

## PINE NUTS

Pine nuts are also known as the Indian nut, pinon, pignoli, or pignolia. There are 20 different species of pine trees, and two pine nuts are found at the base of each segment in a pinecone. Harvesters must heat the pinecone to remove the nuts. This labor-intensive process and the fact that it takes 10 to 12 years for a tree to mature to produce pine nuts is what makes these nuts so expensive. They are a rich source of manganese, providing 419% of the daily value. Russia, China, and North Korea are the biggest exporters and consumers. There are two main varieties. Both have a thin shell with an ivory-colored nutmeat that averages ½-inch in length. The Italian pine nut has a torpedo shape and delicate flavor which makes it the most expensive of the two. The stronger flavored Chinese pine nut is shaped like a squat triangle. Its pungent flavor can easily overpower some foods. Add pine nuts to a variety of foods, including your favorite pizza. They are the most-used nut for making pesto.

## PISTACHIO

A native of central Asia, the pistachio has been around for at least 3,000 years. Today the nuts grow in California, Italy, Turkey, Greece, and Iran. The pistachio has a hard, tan shell that surrounds a pale-green nut. Some shells are colored red with vegetable dye, while others are



blanched until white. Pistachio nuts are available year-round shelled and unshelled, either raw or roasted. Buy only unshelled pistachios in which the shells are partially open, as a closed shell means the nutmeat is immature. Root Vegetable Salad with Pistachios is a twist on your favorite summer vegetables. Find it at <https://americanpistachios.org/recipes-and-snacking/recipes/root-vegetable-salad-pistachios>.

## SOY NUTS

Soy products became very popular in 1999. The FDA approved health claims that soy protein could help lower the risk of heart disease, with consumption of at least 25 grams of soy protein daily. Soy nuts are rich in isoflavones and are also one of the lowest in calories compared to other nuts. They make a great snack, or you can use them in salads and baked goods. How about a tempting trail mix to include soy nuts in your diet? Find it at <https://www.sds soybean.org/news-media/cool-soyfoods-recipe-ideas-for-summer>.

## WALNUTS

The fruit of the walnut tree is documented as far back as 7,000 B.C. and may have originated in Persia. The Black walnut is an American species native to Appalachia. The English or Persian walnut grows in California, France, and Italy. Producers prefer them because they are easier to shell. Walnuts are the only nut to have a significant amount of omega-3 fatty acids, as well as antioxidants. Walnuts are delicious in a variety of sweet and savory dishes and baked goods. For the perfect charcuterie addition, try Honey Roasted Cardamom California Walnuts at <https://walnuts.org/recipe/honey-roasted-cardamom-california-walnuts/>.

NUTRITION INFORMATION COMPARISON					
Nut	Serving Size (one ounce)	Calories	Protein (g)	Carbohydrate	Fat (g)
Almond	23	160	6	6	14
Brazil Nut	6	190	4	3	19
Cashew	18	160	4	9	13
Hazelnut	21	180	4	5	17
Macadamia	10 -12	200	2	4	22
Peanut	28	166	7	6	14
Pecan	19 halves	200	3	4	20
Pine Nut	167	190	4	4	20
Pistachio	49	160	6	8	13
Soy Nut	1/4 cup	130	12	9	6
Walnut	14 halves	190	4	4	18

## NUT BUTTERS AND MILK

Nut butters are a popular substitute for butter or margarine, as a spread for apples or muffins, or the base for homemade dressings or smoothies. Almond, peanut, and Nutella (hazelnut butter and chocolate combination) are perhaps the easiest to find commercially and a better nutritional choice. The internet is full of recipes if you want to make your own.

## STORING NUTS

Heat, light, and moisture cause nuts, especially shelled nuts, to go rancid quickly. Store whole nuts in the shell, in a cool, dry place for six months, or indefinitely in the freezer. Store shelled nuts in the refrigerator for up to a month or in the freezer for up to six months. Toasted nuts will keep in the freezer for up to a month. Always store nuts in tightly covered containers.

## NUT ALLERGIES

While nuts are a great nutrient-dense food, they can be a huge concern to those with nut allergies. In the U.S., peanut allergy is the

most common food allergy and is often severe. Common allergic symptoms include hives, itchy eyes, asthma, sneezing, swelling, vomiting, abdominal pain, and diarrhea. Some reactions are severe and may lead to death. Because of the increasing number of people with nut allergies, producers must label products containing nuts or produced near nuts.

## HOW TO ADD MORE NUTS TO MEALS

- Eat a handful of nuts or a one ounce serving for a tasty snack.
- Sprinkle nuts over breakfast cereals, yogurt, or oatmeal.
- Toss nuts with popcorn, granola, or trail mix.
- Add ground nuts into soups or stews to add thickening.
- Garnish a bowl of soup with nuts to add texture and color.
- Add sliced or chopped nuts to any salad for an added crunch.
- Mix toasted nuts into a casserole for added crunch.





- Blend nuts with a soft cheese to make a tasty spread for crackers or bread.
- Crush nuts to use as a coating for meat, poultry, or fish before baking. This adds a sweet taste.
- Accent any stir-fry with toasted nuts for an enhanced flavor.
- Toasted pine nuts are great in sauteed greens, such as spinach, kale, or collards.
- Use nuts in desserts such as brownies and cookies for an added crunch.

- To enhance flavor and add texture to sweet or savory pies, add ground nuts to pastry dough or try a nut pie crust recipe.
- The new trend is to blend any type of nut with water to make nut milk.

## REFERENCES

- Gordon, B. (2021) Choose Healthy Fats, <https://www.eatright.org/food/food-groups/fats/choose-healthy-fats>, accessed June 2023.
- International Tree Nut Council Nutrition Research and Education Foundation (2014), Any Nut, Any Time, <https://nuthealth.org/>, accessed June 2023.
- Ros, E. Health Benefits of Nut Consumption. *Nutrients*. 2010 Jul; 2(7) 652-682.
- University of Denver Nut and Nut Butters Research Guide (2022), <https://libguides.du.edu/c.php?g=90342&p=582068>, accessed June 2023.
- USDA Economic Research Service Fruit and Tree Data (2023), <https://www.ers.usda.gov/data-products/fruit-and-tree-nuts-data/>, accessed June 2023.

Written By

Sandra Bastin, PhD, RDN, Extension Specialist for Food and Nutrition,

Sarah Small, DHN Graduate Student, and Isabella Ancona, DHN Undergraduate Student

Revised June 2023

Copyright © 2023 for materials developed by University of Kentucky Cooperative Extension. This publication may be reproduced in portions or its entirety for educational or nonprofit purposes only. Permitted users shall give credit to the author(s) and include this copyright notice.

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability.