

# Sweet chestnut

## Ευρωπαϊκή καστανιά

### Castanea sativa



The chestnuts are the deciduous trees and shrubs in the genus *Castanea*, in the beech family *Fagaceae*. They are native to temperate regions of the Northern Hemisphere. The name also refers to the edible nuts they produce.

Chestnuts remain a good source of antioxidants, even after cooking. They're rich in gallic acid and ellagic acid—two antioxidants that increase in concentration when cooked. Antioxidants and

minerals like magnesium and potassium help reduce your risk of cardiovascular issues, such as heart disease or stroke.

Chestnuts are the edible nuts of trees and shrubs that belong to the *Castanea* genus.

They have a delicious, mildly sweet taste and are incredibly versatile. You can incorporate them into a variety of dishes, such as stuffings, salads, soups, and many more.

There are many different types of chestnuts, and they share similar qualities. The most common types include the American chestnut, Chinese chestnut, Japanese or Korean chestnut, and European chestnut.

It's worth noting that these types of chestnuts are not related to the water chestnut (*Eleocharis dulcis*), which is a type of aquatic vegetable that is popular in Asian cuisine.

Not only are chestnuts a delicious treat, especially around Christmas time, but they are rich in nutrients that have been linked to many health benefits. These include improved heart health, digestive health, blood sugar control, and more.

## **1. Packed with nutrients**

Despite their small size, chestnuts are packed with a variety of nutrients.

A 10-kernel (84-gram) serving of roasted chestnuts provides the following

- **Calories:** 206
- **Protein:** 2.7 grams
- **Fat:** 1.9 grams
- **Carbs:** 44.5 grams
- **Fiber:** 4.3 grams, 15% of the Daily Value (DV)
- **Copper:** 47% of the DV
- **Manganese:** 43% of the DV
- **Vitamin B6:** 25% of the DV
- **Vitamin C:** 24% of the DV
- **Thiamine:** 17% of the DV
- **Folate:** 15% of the DV
- **Riboflavin:** 11% of the DV
- **Potassium:** 11% of the DV

In addition, chestnuts are a decent source of several other vitamins and minerals, including vitamins K, B5, and B3, as well as phosphorus and magnesium. Compared with most other nuts, chestnuts contain fewer calories because they are low in fat. They are also higher in carbs than most

nuts and contain a good amount of fiber, providing 15% of your daily needs in one serving.

## **2. Great source of antioxidants**

Chestnuts contain a wide variety of antioxidants, which are important for your health.

These antioxidants include:

- vitamin C
- gallic acid
- ellagic acid
- tannins
- alkaloids
- various polyphenols
- lutein
- zeaxanthin

The last two antioxidants accumulate in the retinas of your eyes and protect them against damage from blue light.

Antioxidants are compounds that help protect your cells against damage from unstable molecules called free radicals.

High levels of free radicals may cause a state called oxidative stress. These can increase the risk of chronic diseases, such as heart disease, diabetes, and cancers .

In addition, studies have shown that various antioxidants found in chestnuts, such as gallic and ellagic acid, may help lower the risk of heart disease, reduce insulin resistance, and suppress the growth and spread of tumors .

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### **3. May aid heart health**

Chestnuts are a good source of nutrients that are great for your heart.

For starters, they contain antioxidants, such as gallic and ellagic acid. Studies have found that these antioxidants may help protect the heart against oxidative stress, a condition that may raise the risk of strokes and heart disease.

Chestnuts are also a good source of potassium, providing 11% of your daily needs. Potassium is important for a healthy heart and helps regulate your blood pressure .

In addition, studies have found that consuming a potassium-rich diet may lower the risk of heart disease by as much as 27%, with a 24% lower risk of strokes.

### **4. High in fiber**

Chestnuts are a good source of fiber, which has many health benefits.

For one, fiber helps add bulk to your stools, which makes them easier to pass and can help keep you regular.

In addition, the fiber in your diet reaches your colon largely undigested, where it acts as a prebiotic. This means the fiber becomes a source of nourishment for the healthy bacteria in your gut, which ferment fiber .

When the gut bacteria ferment fiber, they produce various beneficial compounds, including short-chain fatty acids.

These short-chain fatty acids offer numerous benefits. Studies have shown they may aid gut health, reduce inflammation, and improve blood sugar control.

Lastly, because fiber passes through your body largely undigested, it does not add calories to your diet. Instead, it contributes to feelings of fullness without adding calories to your diet, which may help with weight management.

## **5. May improve blood sugar control**



Maintaining your blood sugar at a healthy level is important for your health, but especially important if you have prediabetes or diabetes.

This is because prolonged high blood sugar levels can raise the risk of health complications in individuals with diabetes. These complications include damage to the blood vessels and organs .

Chestnuts have several intriguing properties that may aid blood sugar control.



Despite being higher in carbs than most nuts, chestnuts are a good source of fiber that can help prevent blood sugar spikes.



In addition, studies have shown that chestnut antioxidants, such as gallic and ellagic acid, help manage blood sugar levels and may improve insulin sensitivity, making your cells more responsive to insulin .

However, chestnuts are still considered a higher carb nut. While eating a small to moderate quantity of chestnuts may offer these benefits, consuming too many chestnuts frequently may counter these health benefits.

## **6. May aid weight loss**

Chestnuts have several properties that may aid weight loss.

The high proportion of fiber they contain can help you stay fuller for longer. This is because fiber can help slow down the time it takes for food to empty from the stomach into the intestines.

In addition, studies have shown that high fiber intake can increase the production of hormones that help curb your appetite, such as peptide YY (PYY) and glucagon-like peptide-1 (GLP-1), while suppressing the hunger hormone ghrelin.

Furthermore, chestnuts contain fewer calories per gram than most other nuts. This is because they are low in fat, which is the most calorie-dense nutrient .

If you are looking to lose weight, you will need to create a calorie deficit to do so. Eating chestnuts may help you do this while also helping you feel full

Interestingly, an animal study found that consuming chestnuts may help reduce cholesterol and belly fat. However, scientists need to do more research to investigate these potential effects.

## **7. May lower inflammation**

Inflammation is a natural process that helps the body heal and fight infections.

In some situations, inflammation may persist at a low level. This is known as chronic inflammation and is linked to numerous chronic conditions, such as heart disease, diabetes, and cancers.

Chestnuts have properties that may help reduce inflammation.

The antioxidants they contain, such as vitamin C, gallic acid, ellagic acid, and various polyphenols, can help reduce inflammation. They neutralize free radicals, which are key drivers of chronic inflammation .

In addition, test-tube and animal studies have shown that chestnut antioxidants, such as tannins and flavonoids, can help suppress inflammatory signals, such as NF- $\kappa$ B and MAPK

## **8. Potential anti-tumor properties**

Research from test-tube studies suggests chestnuts may have anti-tumor properties.

In particular, these studies suggest that the antioxidants found in chestnuts may help suppress the growth and spread of cancer cells and stimulate cancer cell death.

Test-tube studies showed that extracts from chestnuts suppressed the growth and spread of various types of cancer cells, such as prostate, breast, and colon cancers.

Other test-tube studies and animal studies on chestnut antioxidants, such as ellagic acid, have

found that they may also suppress the spread of tumor cells and stimulate tumor cell death .

In particular, ellagic acid targets the PI3K signaling pathway, which regulates cell growth and survival .

However, scientists need to do more research in humans and animals to understand how the compounds found in chestnuts may affect cancer cells in humans.

## **9. Delicious and easy to add to your diet**

Not only are chestnuts healthy, but they are also delicious and easy to add to your diet. They have a mildly sweet flavor and soft yet firm texture.

Although you can eat chestnuts raw, they are high in tannins, which may cause digestive issues or other complications in individuals sensitive to tannins.

They are easy to prepare. You can roast them in the oven on a baking sheet for 20–30 minutes at 400°F (200°C). Make sure to pierce the nuts' skin before roasting to prevent them from exploding in the oven.

Alternatively, you can boil the chestnuts in a pot of water. Bring the pot to boil and then lower the heat to allow them to simmer for approximately 30 minutes. Again, make sure to pierce the skin of the chestnuts beforehand. Once the chestnuts are cooked, their skin is easy to remove so you can enjoy them as a delicious snack. They are also incredibly versatile and you can incorporate them into salads, stuffings, soups, and desserts, such as tarts and pies.

## **The bottom line**

Chestnuts are a popular nut that people enjoy around the world. They are a good source of fiber, vitamin C, copper, B vitamins, manganese, and various antioxidants, which are linked to numerous health benefits. Chestnuts and their nutrients may help improve heart health, blood sugar control, weight loss, inflammation, and digestive health, and may have potential anticancer properties. Not to mention, chestnuts are delicious, versatile, and easy to add to your diet. If you would like to try chestnuts, experiment with roasting or boiling them to enjoy as a snack. You can also incorporate cooked chestnuts into dishes such as salads, soups, stuffings, and desserts.