

MEDICAL NEWS TODAY

Blueberries: Health Benefits, Facts, Research

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Fresh blueberries are one of the most popular summer treats of all time. They are sweet, succulent, full of nutrients, and can be eaten freshly picked as well as incorporated into a variety of recipes.

Blueberries contain a type of flavonoid known as anthocyanins, which are responsible for giving foods like blueberries, cranberries, red cabbage and eggplants their iconic deep red, purple and blue hues. Anthocyanins are responsible for more than just the blueberry's pretty blue color - they also contribute to the popular fruit's numerous health benefits.

This MNT Knowledge Center feature is part of a collection of articles on the health benefits of popular foods. It provides a nutritional breakdown of the blueberry and an in-depth look at its possible health benefits, how to incorporate more blueberries into your diet and any potential health risks of consuming blueberries.

Possible health benefits of blueberries

Anthocyanins that are responsible for the blueberry's color, contributes to the numerous health benefits of consuming the fruit. Consuming fruits and vegetables of all kinds has long been associated with a reduced risk of many lifestyle-related health conditions. Many studies have suggested that increasing consumption of plant foods like blueberries decreases the risk of obesity, diabetes, heart disease and overall mortality while promoting a healthy complexion and hair, increased energy, and overall lower weight.

Although more research is needed before any of these health links can be said to be conclusive, blueberries have been associated with the following health benefits:

1) Maintaining healthy bones

The iron, phosphorous, calcium, magnesium, manganese, zinc and vitamin K in blueberries all contribute to building and maintaining bone structure and strength.

Iron and zinc play crucial roles in maintaining the strength and elasticity of bones and joints.² Low intakes of vitamin K have been associated with a higher risk for bone fracture, while adequate vitamin K intakes improve calcium absorption and may reduce calcium loss.⁵

2) Lowering blood pressure

Maintaining a low sodium intake is essential to lowering blood pressure. Blueberries are naturally free of sodium and contain potassium, calcium, and magnesium, all of which have been found to decrease blood pressure naturally.³

3) Managing diabetes

Studies have shown that type 1 diabetics who consume high-fiber diets have lower blood glucose levels and type 2 diabetics may have improved blood sugar, lipids and insulin levels. One cup of blueberries contributes 3.6 grams of fiber.

The Dietary Guidelines for Americans recommends 21-25 grams of fiber per day for women and 30-38 grams per day for men. A large cohort study published in the BMJ in 2013 suggested that certain fruits - but not juices - may reduce the risk of type 2 diabetes in adults. Over the course of the study, 6.5% of the participants developed diabetes, but the researchers found that consuming three servings per week of blueberries, grapes, raisins, apples or pears reduced the risk of type 2 diabetes by 7%.

4) Warding off heart disease

The blueberry's fiber, potassium, folate, vitamin C, vitamin B6 and phytonutrient content, coupled with its lack of cholesterol, all support heart health. The fiber in blueberries helps lower the total amount of cholesterol in the blood and decrease the risk of heart disease.

Vitamin B6 and folate prevent the buildup of a compound known as homocysteine. When excessive amounts of homocysteine accumulate in the body, it can damage blood vessels and lead to heart problems.

According to a recent study from the Harvard School of Public Health and the University of East Anglia, regular consumption of anthocyanins can reduce the risk of heart attack by 32% in young and middle-aged women. The study, which was led by nutrition professor Aedin Cassidy, PhD, MSc, BSc, found that women who consumed at least three servings of blueberries or strawberries, showed the best results.⁴

5) Preventing cancer

Vitamin C, vitamin A, and various phytonutrients in blueberries function as powerful antioxidants that help protect cells against free radical damage. They inhibit tumor growth, decrease inflammation in the body and help ward off or slow several types of cancer, including esophageal, lung, mouth, pharynx, endometrial, pancreatic, prostate and colon.¹

Blueberries also contain folate, which plays a role in DNA synthesis and repair, thus preventing the formation of cancer cells from mutations in the DNA.¹

6) Improving mental health

Population-based studies have shown that consumption of blueberries can reduce the risk of cognitive decline as well as Parkinson's disease - a neurodegenerative disorder resulting from cell death in parts of the brain.⁵

Studies have also revealed that in addition to reducing the risk of cognitive damage, blueberries can also improve short-term memory loss and motor coordination.⁴

7) Healthy digestion

Because of their fiber content, blueberries help to prevent constipation and promote regularity for a healthy digestive tract.

8) Weight loss and satiety

Dietary fiber is commonly recognized as an important factor in weight loss and weight management by functioning as a "bulking agent" in the digestive system. High fiber foods increase satiety and reduce appetite, making you feel fuller for longer and thereby lowering your overall calorie intake.

9) Fighting wrinkles

Collagen, the skin's support system, relies on vitamin C as an essential nutrient that works in our bodies as an antioxidant to help prevent damage caused by the sun, pollution and smoke. Vitamin C also promotes collagen's ability to smooth wrinkles and improve overall skin texture. Just one cup of blueberries provides 24% of your daily need for vitamin C.

Recent developments on the health benefits of blueberries from MNT news

Blueberries could be used to fight Alzheimer's, researchers suggest

Blueberries are a popular fruit, easily added to cereals, salads and desserts or eaten as a sweet treat in their own right. They are also known by some as a "superfood," containing a wide variety of nutrients that offer protection against conditions such as cancer and heart disease. Now, researchers believe that they may have a part to play in the fight against Alzheimer's disease.

On the next page we look at the nutritional breakdown of blueberries, how to incorporate more blueberries into your diet and the potential health risks of consuming blueberries.

Nutritional breakdown of blueberries

One cup of fresh blueberries contains 84 calories, 0 grams of cholesterol, 1.1 grams of protein, 0.49 grams of fat, 21 grams of carbohydrate and 3.6 grams of dietary fiber (14% of daily requirements).

That same one-cup serving provides 24% of daily vitamin C, 5% vitamin of B6 and 36% of vitamin K needs. Blueberries also provide iron, calcium, potassium, magnesium, phosphorus, sodium, manganese, zinc, copper, folate, beta-carotene, folate, choline, vitamin A and vitamin E.

In addition to anthocyanins, blueberries contain a diverse range of phenolic compounds such as quercetin, kaempferol, myricetin and chlorogenic acid - all of which contribute to their antioxidant capacity.⁵

Due to these large amounts of bioactive compounds, blueberries rank very highly on the Aggregate Nutrient Density Index (ANDI), which rates foods based on their vitamin and mineral content, phytochemical composition and antioxidant capacity. Foods that have the most nutrients per calorie have the highest rankings, and blueberries score among the top 20 fruits and vegetables.⁶

How to incorporate more blueberries into your diet

Blueberries are available fresh, frozen, freeze dried and in jellies, syrups and jams. Make sure to check the label of frozen and dried blueberries for added sugars. When looking for jellies or jams, go for all fruit spreads without the added sweeteners and fillers.

Blueberries can be added to low-fat milk and yogurt for a tasty and healthy smoothie.

Quick tips:

- Use blueberries as fresh toppings on oatmeal, waffles, pancakes, yogurt or cereal for an extra burst of flavor in your breakfast
- Whip up a quick and easy smoothie using frozen berries, low-fat milk and yogurt
- Mix fresh or dried blueberries into a spinach salad with walnuts and feta cheese
- Fold them into muffins and sweet breads or blend them in a food processor with a little water and use as a fresh syrup to top desserts or breakfast foods.

Or try these healthy and simple recipes:

[Blueberry almond bread](#)

[Blueberry pumpkin oat muffins](#)

[Blueberry chia smoothie](#)

[Wild blueberry turkey burgers](#)

[Kale salad with creamy blueberry vinaigrette](#)

Potential health risks of consuming blueberries

If you are taking blood-thinners such as Coumadin (warfarin), it is important that you do not suddenly begin to eat more or less foods containing vitamin K, which plays a large role in blood clotting.

It is the total diet or overall eating pattern that is most important in disease prevention and achieving good health. It is better to eat a diet with a variety than to concentrate on individual foods as the key to good health.

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