

BLUEBERRIES & HEART HEALTH



Overview

Heart disease, also known as cardiovascular disease, is a major public health concern in the United States and is currently the leading cause of death among both men and women ("Heart Disease Facts," 2019). Pre-existing conditions that increase an individual's risk for developing cardiovascular disease include high blood sugar, high blood pressure, obesity and high blood-lipid levels.

According to the **American Heart Association**, an overall healthy dietary pattern and lifestyle are the best weapons to help combat heart disease. This entails getting the right amount of calories and physical activity for your personal needs, engaging in beneficial lifestyle practices such as ensuring quality sleep and discovering healthy ways to cope with stress and more ("The American Heart Association Diet and Lifestyle Recommendations," 2020).



Eat an overall healthy dietary pattern that emphasizes:



A variety of colorful fruits and vegetables, including blueberries



Whole grains



Low-fat dairy products



Skinless poultry and fish



Nuts and legumes



Non-tropical vegetable oils

Get the scoop on blueberry nutrition

One serving (a handful or a cup) of blueberries:

- 1 Is considered one serving of fruit.
- 2 Contains just 80 calories and only naturally occurring sugars.
- 3 Contributes essential nutrients including vitamin C, vitamin K, manganese and phytonutrients called polyphenols.
- 4 The group of polyphenols includes anthocyanins (163 mg/100 g), which are compounds that give blueberries their blue color.
- 5 Are a good source of fiber.

Love whats on your plate: Blueberry tips

You never need an excuse to eat fresh or frozen blueberries. They're a deliciously healthy, everyday treat. Instead of hauling out the cutting board and special gadgets, all you need to enjoy blueberries is a quick rinse. Fresh, frozen or even dried, blueberries are great by themselves, but they're also primed to play a starring role in simple, tasty recipes.

Here are some tips to get heart-healthy blueberries in to your diet:

- Toss a handful into a refreshing salad.
- Mix up a satisfying smoothie. You can even use frozen instead of ice.
- In a hurry? Grab a handful of blueberries to enjoy. They make a quick, packable snack.
- Try a handful with nuts, yogurt, granola, peanut or almond butter toast, cheese or a protein bar for a robust snack or mini-meal.

Check out these recipe favorites to get heart-healthy blueberries into your diet:



**No-Bake Blueberry
Coconut Energy Balls**



Blueberry Pistachio Parfait



**Blueberry Balsamic
Chicken Wrap**



**Blueberry Lemon
Ricotta Rice Cakes**

Recent blueberry heart health research

A research study conducted at the University of East Anglia in the United Kingdom investigated if blueberries improve biomarkers of cardiometabolic function in participants with metabolic syndrome during a six-month, double-blind, randomized controlled trial. One hundred and fifteen (115) participants between the ages of 50 and 75 years with metabolic syndrome were randomly assigned to receive one of three daily treatments: 26 g freeze-dried blueberries (the equivalent of one U.S. cup/day); 13 g freeze-dried blueberries (the equivalent of one-half U.S. cup/day fresh blueberries); or a placebo powder matched for color, taste and consistency. The study found that daily intake of the equivalent of one U.S. cup of blueberries (given as 26 g freeze-dried blueberries) resulted in clinically significant improvements in heart health measures, particularly markers of vascular function. Improved

endothelial function and reduced arterial stiffness are associated with a reduced risk of cardiovascular events such as heart attack and stroke. Intake of one cup of blueberries per day also resulted in significantly increased HDL-C levels compared to the placebo. (Curtis, 2019)

Insulin resistance, pulse wave velocity, blood pressure and other lipid levels (including total cholesterol) were unaffected by any of the interventions. There were also no observed clinical benefits from the intake of one-half cup of blueberries in this at-risk participant group. While the conclusions drawn are from a single study that cannot be generalized to all populations, the data add weight to the evidence that a dietary intervention with a realistic serving of blueberries may be an effective strategy to decrease important risk factors for heart disease.

References

1. Heart Disease Facts. (2019, December 2). Retrieved from <https://www.cdc.gov/heartdisease/facts.htm>
2. The American Heart Association Diet and Lifestyle Recommendations. (2020, December 2). Retrieved from <https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/nutrition-basics/aha-diet-and-lifestyle-recommendations>
3. Curtis, P. J., Van Der Velpen, V., Berends, L., Jennings, A., Feelisch, M., Umpleby, A. M., ... Cassidy, A. (2019). Blueberries improve biomarkers of cardiometabolic function in participants with metabolic syndrome—results from a 6-month, double-blind, randomized controlled trial. *The American Journal of Clinical Nutrition*, 109(6), 1535–1545. doi: 10.1093/ajcn/nqy380