

## Berries are very good for us

Nutrition is no chore when fresh berry season is here. Local blueberries, blackberries and raspberries are ripening across Northeast Ohio, calling to us with their sweet, tart and fragrant qualities -- and some big benefits you might not know about.

All three are in the top 10 list of cancer-fighting foods, with up to 10 times more antioxidants than tomatoes and broccoli. Like a squeeze of lemon juice that keeps an avocado from browning, antioxidants can destroy the forces that contribute to aging, cancers and cataracts. Don't strain out those little raspberry seeds if you can tolerate them. They can pack more of a health punch than the pulp.

**Blackberries:** Higher concentration of antioxidants than most other foods. Pulpier than raspberries and twice the fiber and potassium of blueberries. One cup gives you 50 percent of the vitamin C you need for a day. Good source of folate.

Eat one cup and you get: 75 calories, 1 gram protein, 1 gram fat (none saturated), no cholesterol, 18 grams carbohydrates, 46 milligrams calcium, 30 milligrams phosphorus, 0.8 milligram iron, no sodium, 282 milligrams potassium, 7 grams fiber, 23 retinol equivalents of vitamin A, 0.04 milligram thiamin, 0.06 milligram riboflavin, 0.6 milligram niacin, 30 milligrams vitamin C.

**Blueberries:** Helps prevent memory loss and inflammation and improves coordination. Low in calories and sodium. High in potassium, manganese, dietary fiber and vitamins C and A. High in antioxidants.

Eat one cup and you get: 81 calories, 1 gram protein, 1 gram fat (none saturated), no cholesterol, 20 grams carbohydrates, 9 milligrams calcium, 15 milligrams phosphorus, 0.2 milligram iron, 9 milligrams sodium, 129 milligrams potassium, 3 grams fiber, 15 RE vitamin A, 0.07 milligram thiamin, 0.07 milligram riboflavin, 0.5 milligram niacin, 19 milligrams vitamin C.

**Raspberries:** Black and red, especially seeds, high in antioxidants and help inhibit inflammation. Provides vitamin A, some B-complex and minerals. One cup is 40 percent of the vitamin C you need for a day. Linked to reduction of esophageal and colon cancer and some of the ill effects of tobacco products.

Eat one cup and you get: 60 calories, 1 gram protein, 1 gram fat (none saturated), no cholesterol, 14 grams carbohydrates, 27 milligrams calcium, 15 milligrams phosphorus, 0.7 milligram iron, no sodium, 186 milligrams potassium, 6 grams fiber, 18 RE vitamin A, 0.04 milligram thiamin, 0.11 milligram riboflavin, 1.1 milligrams niacin, 31 milligrams vitamin C.

Sources: "The Nutrition Bible" by Jean Anderson and Barbara Deskins; "The New Whole Foods Encyclopedia" by Rebecca Wood; OSU Extension; Better Nutrition magazine; BioFactors science journal; [www.fruitandveggieguru.com](http://www.fruitandveggieguru.com).

## Experimental Principle

Vitamin C is the human nutrition in one of the most important vitamin, the lack of it will have scurvy, also known as ascorbic acid (ascorbic acid). The regulation of its metabolism plays an important role. In recent years, found that it also strengthen the body's resistance to the tumor, and has blocked the role of chemical carcinogens.

Vitamin C exist in fresh fruits and vegetables. Kiwi fruit in a maximum of content, lemons, tangerines and oranges also very rich in content; pepper to vegetables in the content of the most abundant in tomatoes, cabbage, radish, cabbage is also very rich in content, to wild plants in Cili In the most abundant, each containing 100 grams of 2,800 milligrams, Wang vitamin C, said. Vitamin C is a colorless crystal, Weisuan, insoluble in water and alcohol, heat resistance, in alkaline solution in a very unstable and prone to oxidation solar radiation damage, there Trace copper, iron and other heavy metals it easier for the presence of Decomposition, dry conditions more stable. Therefore, vitamin C preparations should be placed on dry, cold and dark, save in cooking vegetables, cooking should not be excessive and should avoid contact with alkali and bronze.

Vitamin C is highly reductive. It can be divided into reductive and dehydrogenation type. Ascorbic acid can be reduced vat dyes 2,6 - dichlorophenol meisoindigo phenol (DCPIP), itself is oxidized to dehydrogenation type. In acidic solution, 2,6 - dichlorophenol meisoindigo phenol red, after the reduction into colorless. Therefore, when using this dye titration with the acidic solution of vitamin C, vitamin C have not all been of the former, Dixia the dye was reduced to colorless. Once the solution of vitamin C and all had been oxidation, Dixia immediately so that the dye solution into pink. So, when a colorless solution from the micro-red means that the solution of vitamin C were just oxidation, this is the titration end. If no other impurities interference, extract samples by the reduction of the standard dye and samples also contained in the amount of ascorbic acid is directly proportional to the prototype.

## Reagents and equipment

### First, reagents

2 percent solution of oxalic acid: 2 g oxalic acid dissolved in 100 mL of distilled water.

1% acid solution: 1 g oxalic acid dissolved in 100 mL of distilled water.

Standard ascorbic acid solution (1 mg / mL): accurately that from 100 mg pure ascorbic acid (should be clean and white, such as into the yellow can not be used) 1% of oxalic acid dissolved in solution, and diluted to 100 mL, storage In the brown bottle, frozen. The best clinical use before the preparation.

0.1% 2,6 - dichlorophenol meisoindigo phenol solution: 250mg 2,6 - dichlorophenol meisoindigo phenol dissolved in 150 mL containing 52 mg NaHCO<sub>3</sub> the hot water, cooling water after dilution to 250 mL, frozen storage in the brown bottle (4

About the preservation of the week. Each temporary use, ascorbic acid solution as a standard calibration.

### Second, materials

Optional material.

### Third, equipment

Erlenmeyer flask 100 mL ( 2); absorption capacity of 10 mL ( 1); Rongliang Ping 100 mL ( 1), 250mL ( 1); trace Di Dingguan 5 mL ( 1); Institute Bowl; funnel; gauze.

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## About the Author

From [blog.cleveland.com](http://blog.cleveland.com):

List of vitamins and minerals Free Download,List of vitamins and minerals Software.

There are many things in this world that are rather confusing, and you may be stumped when you read a list of essential.

Understanding the role vitamins and minerals play in the body is the key to. While vitamin tablets may not be necessary, minerals, on the other hand.

The following list of the main vitamins, describes their known functions, the foods they are found in, and the problems caused by deficiency.

Source: <http://productsherbal.com>