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COMMENTARY

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Antioxidant Activity of Raspberries and their Health Benefits

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Description

Raspberries can range in colour from the popular red and black varieties to purple, yellow or gold. Each berry colour has a unique composition of vitamins, minerals and antioxidants. The antioxidant content of plant foods such as raspberries can help prevent a number of diseases. Vitamins C and E, selenium, beta-carotene, lutein, lycopene, and zeaxanthin are examples of antioxidants, and they are all present in raspberries. Raspberries also contain plant chemicals called flavonoids, which have antioxidant effects.

Antioxidants help the body eliminate toxic substances known as free radicals. The body produces some of these substances during metabolic processes, but others occur as a result of external factors, such as unhealthy food and environmental pollution. Junk food includes processed foods that are high in fat and sugar. When too many free radicals remain in the body, they can cause cell damage, leading to a number of health problems.

Potent antioxidants may reduce disease risk

Antioxidants are plant compounds that help your cells fight and recover from oxidative stress. Oxidative stress is associated with a higher risk of cancer, diabetes, heart disease, and other diseases. Raspberries are rich in several powerful antioxidant compounds, including vitamin C, quercetin, and ellagic acid. Compared to other berries, raspberries have the same antioxidant content as strawberries, but only half as much as blackberries and a quarter as much as blueberries. A review of animal studies shows that raspberries and raspberry extracts have anti-inflammatory and antioxidant effects that may reduce the risk of chronic diseases such as heart disease, diabetes, obesity and cancer.

Health benefits

It is believed that under appropriate conditions, virtually all cellular components, including lipids, nucleic acids, and proteins, are susceptible to damage by reactive oxygen species. At normal oxygen tension, these mechanisms are sufficient to maintain homeostasis, and even when free oxygen radicals are formed, they are efficiently scavenged. However, under conditions of increased oxidative stress, the concentration of free radicals can increase uncontrollably.

Brain power: Experts have suggested that eating a diet rich in antioxidants may promote brain and neurological health. There is evidence that vitamins C and E can help protect a person's ability to think and remember information as they grow older. Raspberries contain these antioxidant vitamins.

Heart health: Studies have shown that one group of flavonoids; in particular, anthocyanin's can suppress inflammation that can lead to cardiovascular disease. Raspberries also contain anthocyanins. Various antioxidants may reduce the risk of cardiovascular disease by preventing platelet aggregation and lowering blood pressure through anti-inflammatory mechanisms.

The American Heart Association encourages most people to increase their potassium intake and reduce sodium in their diet. These dietary adjustments can help prevent high blood pressure, a risk factor for cardiovascular disease. One cup of raspberries contains 186 milligrams (mg) of potassium. The AHA recommends about 4,700 mg of potassium each day. The fiber in raspberries may also help or prevent,

- Blood pressure
- Cholesterol levels
- besity
- Heart disease

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- Stroke

Cancer prevention: The National Cancer Institute notes that antioxidants from food sources can help protect the body against lung, oesophageal, stomach, and other cancers. In 2010, scientists treated stomach, colon, and breast cancer cells with Meeker red raspberry extract. The extract killed more than 90% of the cells. Researchers estimate that antioxidants are responsible for about half of the destruction of breast cancer cells.

Diabetes management: Antioxidants in berries can help prevent inflammation, which can be a risk factor for type 2 diabetes. Raspberries are naturally sweet and people usually don't need to add sugar to them. Their sweetness makes them a useful addition to the diet when a person is trying to manage diabetes or excess weight. However, they do contain some natural sugar. People with diabetes should take this into account.

Digestion: The fiber and water content of raspberries can help prevent constipation and support a healthy digestive tract. A sufficient amount of fiber contributes to the regularity of bowel movements, which is crucial for the daily elimination of toxins.

Eye health: Raspberries contain the antioxidant zeaxanthin; it may play a role in protecting the eyes from problems such as Age-related Macular Degeneration (AMD), a condition that causes vision problems in the elderly.

Rich in anti-aging antioxidants: Raspberries are an antioxidant, high in vitamin C. Free radicals can cause "oxidative stress," causing cell damage. Raspberries antioxidants also help reduce inflammation, a known trigger of premature aging. The natural protective substances in raspberries also help repair DNA and block enzymes that cause arthritis pain.