



Polyphenol Power

Concord grapes are natural sources of goodness that may help promote overall health by providing a mix of plant nutrients called polyphenols.¹⁻⁷

Emerging Role of Polyphenols in Good Health

Polyphenols are a sub-group of **phytonutrients**. They are found in foods like onions, tea, red wine, grapes, grape juice, blueberries, and certain nuts. Polyphenols naturally protect plants against pathogens, parasites, and predators and often contribute to the flavor and color of fruits and vegetables.

Found in the skin and seeds, grape polyphenols (specifically **flavonoids**) naturally function as **antioxidants** and help promote overall health.⁸⁻¹⁰ **Free radicals** are atoms or groups of atoms that have one or more unpaired electrons. Free radicals are a normal part of everyday life and are produced during activities like exercising or digestion. They are highly reactive, but bodies have a natural defense system—so in small numbers, they are not a big problem. However, exposure to certain lifestyle and environmental factors—like strenuous exercise, pollution, and UV rays—can result in the formation of excess free radicals. An abundance of unchecked free radicals may, over time, impact health.

Many of the polyphenols in Concord grapes are the same as those found in red wine, and growing research suggests that certain polyphenols may play a role in supporting cardiovascular health.¹⁻³ In fact, more than a decade's worth of research suggests that drinking Concord grape juice may benefit the heart by helping to maintain healthy, clear, and flexible arteries to promote healthy blood flow.^{3-8,11}

Researchers have also begun investigating the role of Concord grapes in cognitive health. The science in this area is very preliminary, with more human trials needed before any conclusions can be drawn. However, emerging science suggests that, thanks to the polyphenols, Concord grapes may offer certain mind-health benefits. Specifically, these preliminary results suggest that polyphenols help keep arteries flexible.³⁻⁷ As a result, flexible arteries can help promote healthy blood flow to the mind.¹² Early research also suggests that a diet rich in antioxidants, like those found in fruits and vegetables, can help slow, and possibly even reverse, age-related cognitive decline.¹³ Also, a recent review supports that, while additional research is necessary, fruit-derived phytonutrients, like polyphenols, may play a role in supporting memory, learning and overall mental performance.¹⁴

*For additional information on the science behind polyphenols and detailed summaries of the research noted above, please visit the **Grape Science Center** at grapescience.com.*

Navigating Polyphenols

Flavonoids are naturally occurring compounds that comprise the largest and most studied subgroup of polyphenols. This group also includes the majority of phytonutrients found in the skins and seeds of Concord and Niagara grapes. There are thousands of different flavonoids found in nature, and fruits, vegetables, and plant-derived beverages (e.g., wine, grape juice, tea) contain many different types. Several of these biologically active compounds help to protect the plant from disease and damage and they are being actively studied to determine their potential role in human health.

Antioxidants are compounds in foods and beverages that can help protect healthy cells from the damaging effects of oxidative stress, which is a condition that has been implicated in a number of long-term health problems. Vitamins C, E, and A (as beta-carotene), and the mineral selenium, as well as certain phytonutrients (such as polyphenols) can act as antioxidants. Antioxidants neutralize free radicals by donating electrons, preventing them from stealing electrons from stable molecules.

References:

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