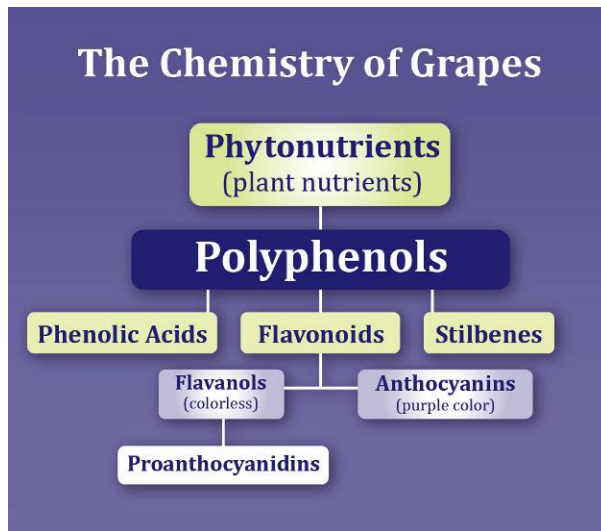




# Chemistry of Grapes



Phytonutrients are plant-based nutrients that appear to have health-promoting effects. They are not considered essential for human survival, but are being actively investigated by the scientific community for their impact on human health. Fruits, vegetables, grains, legumes, nuts, and teas are rich sources of these compounds.

Polyphenols are a sub-group of phytonutrients. They are found in foods like onions, apples, 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. Fruits and vegetables that are high in polyphenols tend to also be high in antioxidant power, or ORAC (Oxygen Radical Absorbance Capacity).

Flavonoids are the largest and most studied sub-group of polyphenols and represent the vast majority of the polyphenols found in both the Niagara and Concord grapes. The majority of the unearthed health benefits associated with the juice of Concord grapes is purported to be attributed to the polyphenols found within the skins and seeds. The skin of this fruit has a high concentration of anthocyanins, while the seeds of both the Niagara and Concord grapes contribute the majority of proanthocyanidins. Many of these flavonoids act as antioxidants and are becoming popular because of their potential health-promoting effects.

