

3-2008

Good News from the Grapevine

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Recommended Citation

Craig, Winston J., "Good News from the Grapevine" (2008). *Lake Union Herald*. 528.
<https://digitalcommons.andrews.edu/luh-pubs/528>

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Red grape juice reduces the risk of blood clots and lowers blood pressure.

Good News from the Grapevine

BY WINSTON J. CRAIG

Grape skins concentrate the healthy substances.

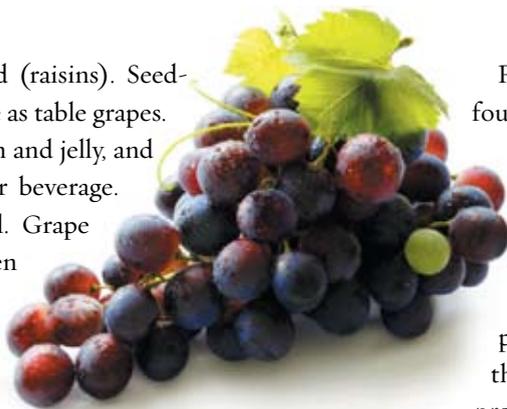


Grapes grow in clusters on a deciduous, woody vine, *Vitis vinifera*, with as many as 300 grapes in a cluster. While the original grapes were red, they now come in many colors. Blue, red, purple, black, green and golden are the most common. The dark grapes contain a rich supply of anthocyanins, the antioxidant polyphenolics that possess health-promoting properties. Grapes rank with blueberries and blackberries as excellent sources of antioxidant activity.

Grapes are eaten fresh or dried (raisins). Seedless grapes are highly desired for use as table grapes. Grapes are also used for making jam and jelly, and the juice of the grape is a popular beverage. Grape seeds provide an edible oil. Grape seed extract appears to strengthen capillary walls, so it is used in the treatment of venous insufficiency and edema following surgery. The extract also reduces the risk of blood clots.

Many of the health benefits attributed to red and purple grapes are due to the pigments that are concentrated largely in the skin and seeds. The skin and seeds contain about a 100 times higher level than the grape pulp. Anthocyanins tend to be the main polyphenolic in red grapes while catechins are the most common in white grapes.

The pigments in red and purple grapes and grape juice protect the cardiovascular system by a number of mechanisms that include the suppression of blood clots, inhibition of LDL cholesterol oxidation, and reduced homocysteine levels. Grapes stimulate endothelial nitric oxide production which induces relaxation of the blood vessel walls, and hence reduces blood pressure levels. Recently, it was shown that a Concord grape extract lowered LDL cholesterol, raised the good HDL cholesterol, and decreased plasma inflammatory biomarkers.



Resveratrol, a dietary constituent found in grapes, is an effective agent for prevention of cancer. Resveratrol has been shown to inhibit prostate cancer cell growth, and induce apoptosis. Anthocyanins and proanthocyanidins are two groups of polyphenolics in Concord grape juice that show cancer preventive and anti-proliferative properties and can detoxify the activity of some cancer-causing substances.

Grapes are also rich in ellagic acid, a potent flavonoid that helps the body fight cancer.

Concord grape juice can protect healthy breast cells from DNA damage. Grape juice also suppresses the growth and development of breast cancer cells in laboratory animals given chemically-induced tumors. The grape juice reduced both mammary tumor size and the number of tumors per animal.

Promising data suggests the use of grape juice to promote brain health and delay neurodegenerative diseases. Participants that drank purple grape juice and similar fruit juices three times a week were about 70 percent less likely to develop Alzheimer's disease. When laboratory animals were fed Concord grape juice they showed significantly improved scores on memory and coordination tests.

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