



## Nature's Pharmacy ANTHOCYANINS

Mother Nature provides a full spectrum of beautifully colored fruits and vegetables. Walking into a farmer's market is like walking into an artist's studio where color pallets display bursting bright reds, greens, oranges, yellows, blues, and even purples. It's a feast for the eyes. Scientists are now gathering evidence that the rainbow of color pigments in fruits and vegetables may do more than simply attract attention or please the eye; they in fact possess a wide array of health-promoting properties. Studies to date suggest that certain of these phytochemicals, or plant chemical pigments,

appear to defend and enhance health. They do so by boosting our bodies' support mechanisms – helping reduce inflammation, pulling toxins out of the system, and fighting free radicals before they have a chance to wreak havoc on our cells.\*

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Anthocyanins, the pigments responsible for blue and red produce, are some of the most potent forms of phytonutrients. These plant pigments are primarily found in many berries, grapes, and to some degree in other fruits and vegetables. Many people have heard of the phenomenon known as the French Paradox. The French eat all the cream, butter, foie gras, cheese and pastry to their heart's desire, and yet their rates of obesity and heart disease are much lower than people in America. One reason may be, in part, their tendency to consume wine on a daily basis. Wine, which comes from grapes, is naturally high in anthocyanins.

Anthocyanins possess an ability to work deeply in the human body. These essential phytonutrient pigments provide powerful protection and have diverse physiological and pharmacological effects.\* They do this through their powerful antioxidant abilities.



To fully appreciate how antioxidants work, let's start with a little background information. Just like rust on a car, oxidation can damage our bodies' cells and may contribute to the aging process. Oxidation happens as the result of invading, damaging molecules called free radicals. Free radicals are unstable oxygen molecules that get into the body as a result of over-exercise, stress, being exposed to dirty air and other environmental pollutants. Antioxidants are integral in supporting the body's natural defense system.\*

Anthocyanins, together with the other beneficial vitamins and minerals found in fruits and vegetables, protect against oxidative stress and associated pathologies such as cancers, heart disease and inflammation.\*

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## Health Tips

For people trying to eat 5-9 servings of fruits and vegetables each day, try adding a high quality fruit or vegetable juice to your daily diet.





It is clear that anthocyanins are some of the most powerful antioxidants, capable of mitigating damage that comes from environmental pollutants, chemical additives in processed foods, over-exertion in the body, and more. Mother Nature has given us an incredible phytonutrient ally. One that nurtures our bodies, provides protection, and provides a visual feast for the eyes. Just amazing!

\*These statements have not been approved by the Food and Drug Administration. These statements are not intended to diagnose, treat, cure or prevent any disease. This notice is required by the Federal Food, Drug and Cosmetic Act.

Sources: Biomedicine and Pharmacotherapy, 2002, Volume 56, pages 200-7. ScienceDaily, August 25, 2003. The Color Code A Revolutionary Eating Plan for Optimum Health, pages 8-9

## National Cancer Institute Encourages Eating Blue and Purple Fruits and Vegetables

The National Cancer Institute (NCI), the national health authority that encourages all Americans to eat 5 to 9 servings of vegetables and fruit a day to promote health and reduce risk of cancer and other chronic diseases, is strongly urging all Americans to eat blue and purple fruits and vegetables. This is because fruits such as blueberries, acai, and pomegranate contain disease-fighting phytochemicals such as anthocyanins and phenolics. NCI states that anthocyanins and phenolics are powerful antioxidants that help reduce the risk of such diseases as cancer, heart disease, and Alzheimer's. They may even help to slow the aging process. NCI also encourages eating a wide variety of other colorful foods in order to take advantage of other types of healthful phytonutrients they contain. For more information, go to [www.5aday.gov](http://www.5aday.gov)



**Acai;** one of the most nutritious and powerful Foods in the world. Packed Full of antioxidants, amino acids and essential Fatty acids, it's one of nature's perfect energy Fruits.

## Study Concludes Fruit/Blueberry Consumption May Prevent Cardiovascular Disease

A November 2005 study released by Appalachian State University Department of Health, Leisure, and Exercise Science found that daily fruit consumption significantly reduces oxidative stress in chronic smokers. The results were obtained by observing twenty chronic smokers over a three week period. The subjects were divided into three groups: the first group consumed 250g of blueberries daily, the second group consumed 250g of blueberries right before the final blood testing and the third was a control group and did nothing. The subjects' blood was drawn at the beginning and end of the study. The study concluded that acute ingestion of fruit had no affect on oxidative stress levels in the blood while daily fruit consumption significantly reduced this oxidation. The study states that fruit consumption plays a role in preventing cardiovascular disease. For more information, go to *Free Radical Research*, November 2005. Source: Taylor & Francis, Volume 39, Number 11, November 2005.

