



CRANBERRY HEALTH NEWS

A publication of the Cranberry Institute

VOLUME 6 - ISSUE 5

WINTER 2009

CRANBERRIES FOR A HEALTHY HEART



Cranberries have long been shown to help prevent urinary tract infections (UTIs), and at this point the evidence is quite solid. Research shows that the same anti-adhesion properties that prevent bacteria from sticking to cell walls such as in the urinary tract can also help prevent stomach ulcers and ward off bacteria that promote tooth decay. In addition, due to their high concentration of antioxidants and other related phytonutrients, cranberries also provide a variety of other health benefits, especially for the heart.

Research has shown that cranberries contain among the highest concentrations of flavonoids, which like red wine, can help promote circulation and prevent cardiovascular disease. Emerging science is also indicating that cranberries can promote HDL (the 'good' cholesterol), and its phenols may help prevent the oxidation of low-density lipoproteins (LDL, the 'bad' cholesterol) which can help reduce blood pressure and prevent the formation of blood clots which can cause stroke.

It is for this reason the [Cranberry Institute](#) chose to focus this issue on cardiovascular health in addition to updates on other cranberry health research. We hope you find it both informative and interesting as our field continues to discover the many health benefits of the cranberry.

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Stemming the Impact of Cardiovascular Disease

While awareness of heart disease and treatment options has improved, the incidence and prevalence of cardiovascular disease (CVD) continue to increase and remain a concern around the globe. In the United States, nearly 80.7 million people have one or more forms of CVD and is the leading cause of death. One of every 2.8 deaths in the U.S. is due to CVD, outpacing cancer and HIV. Health care costs are also increasing with CVD costing \$400 billion in direct and indirect costs in 2006. In Europe, more than 2 million people die annually from CVD and its incidence increasing at younger ages, accounting for nearly 40 percent of all premature deaths (sources: [www.cdc.gov](#), Joint European Society on Cardio Disease).

Fortunately, scientific research on how diet can manage cardiovascular disease also continues to advance. Diane L. McKay, PhD and Jeffrey Blumberg, PhD, researchers at the Antioxidant Research Laboratory at Tufts University, recently quantified the content of phenols and flavonols which are responsible for naturally reversing the processes that cause cardiovascular disease (CVD).

Cranberries Demonstrate Antioxidant and Anti-Inflammatory Properties

One Glass Cranberry Juice for Full Flavonoid Health Benefit



Scientific reviews have shown that the flavonoids found in cranberry juice, grape juice and red wine, have similar effects in promoting vasodilation and inhibiting the formation of blood clots.

As one of three commercially important, native fruits, the cranberry offers a fresh, natural way to help address health

The research team at Tufts University further studied the antioxidant and inflammatory inhibition properties of blueberry and cranberry polyphenol extracts, specifically the anthocyanins and hydroxycinnamic acids found in these fruits.

Researchers concluded the polyphenols in cranberries and blueberries protect endothelial cells from oxidative and inflammatory injury, providing benefits that may reduce the initiation and development of vascular disease.

Researchers continue to focus on the cranberry and determine the nutritional properties that are responsible for a multitude of health benefits, which had been perhaps best known for its impact on urinary tract health.

Source: Diane L. McKay, PhD, Jeffrey Blumberg, PhD, "Cranberries and Cardiovascular Disease Risk Factors, *Nutrition Review*, Volume 65, No. 11).

through diet. An 8 ounce glass of cranberry juice cocktail contains procyanidins that provide as much heart healthy content in one serving as a standard glass of red wine.

There are several classes of flavonoids found in cranberries, all with antioxidant properties and having potential physiologic benefits in CVD. Cranberry flavonoids include flavonols, proanthocyanidins and anthocyanins, the pigments that give cranberries their rich red color.

Warfarin Update

The Cranberry Institute is aware of questions raised about the interaction between warfarin and a number of food products and has been carefully monitoring and communicating about any potential interaction with cranberries.

After reviewing the past and current body of research, and after consultation with independent scientists, we believe there remains *no confirmed evidence* that normal daily consumption of cranberry is any greater or any less of an interaction issue with warfarin than many other foods and/or beverages. Further, there has been no evidence of any other drug interaction with cranberry.

A complete review of the scientific research published by Dr. Jo Yacko from the [Warfarin Institute of America](#) which is validated by a published study by David Greenblatt, PhD from Tufts University, both concluded no significant interaction has been shown. Given the well documented evidence of its health properties and benefits, experts in food and drug interactions conclude it's premature to deprive patients of the proven nutritional and health benefits of cranberry products.

Since warfarin is a potent drug used as a blood thinning agent, health professionals understand the diet of anyone on warfarin must be highly regulated and needs to be carefully monitored. Many common factors—including over-the-counter medications (such as aspirin, ibuprofen, acetaminophen), botanicals, and foods (such as green leafy vegetables) and beverages —may cause an interaction with this drug.

The health of your patients is our number one priority. The Cranberry Institute will continue working closely with the scientific and medical communities to further explore any risk or benefit associated with cranberry consumption so that patients and medical/health professionals can be best informed.

Of the 20 most commonly consumed fruits, cranberries have been proven to contain among the highest levels of phenol and antioxidants.

According to recent studies, phenols may increase the resistance of low-density lipoproteins (LDL) to oxidation. And in preventing oxidation, cranberries help prevent platelet aggregation and thrombosis, reducing blood pressure and inhibiting inflammation.



New Cranberry Health Research

The Cranberry Institute tracks and funds cranberry health research around the globe. The CI also partners with industry organizations such as the Wisconsin Cranberry Board and Canadian Cranberry Growers Coalition, to fund research on the health benefits of the cranberry.

How Cranberries Promote Urinary Tract Health

Researchers led by Terri Camesano, PhD at Worcester Polytechnic Institute (WPI) have demystified how cranberries prevent urinary tract infections (UTIs). The study, published in the current issue of *Colloids and Surfaces: B*, shows that the juice changes the thermodynamic properties of bacteria in the urinary tract to form an energy barrier that prevents infections from developing.

According to Dr. Camesano, "Our results show that, at least for urinary tract infections, cranberry juice targets the right bacteria—those that cause disease—but has no effect on non-pathogenic organisms (normal bacteria) in the gut."

Dr. Camesano has additional research that shows cranberry juice has potent (but temporary) effects on other disease-causing bacteria, suggesting regular, such as daily consumption could be beneficial to patients. Her research further shows both regular cranberry juice cocktail and sugar-free cranberry juice work effectively to prevent UTIs. (source: Worcester Polytechnic Institute).

Help Fight Cancer with Cranberries

Eat Cranberries Now, Purple Tomato Later

Researchers at University of Toronto recently published they were able to genetically modify a tomato to produce anthocyanins, and harvested the world's first purple tomato. In animal studies, they were able to demonstrate a significant anti-cancer benefit that will be examined further. They anticipate several years before such a fruit could be mass produced and distributed to the public.

Researchers were quick to point out that the power of anthocyanins already occur naturally in cranberries and other colorful fruits, and suggested to consumers if they want proven anti-cancer benefits today, they should consume more anthocyanin-rich berries such as cranberry. (source: Toronto Star, <http://www.thestar.com/living/article/526237>)

Cranberries Promote Digestive Health

New research suggests that cranberry juice can be as effective as probiotics in maintaining good digestive health. The double-blind trial at the University of Chile found a regular 6.8 oz. serving of 25% cranberry juice was as effective as the probiotic studied in suppressing growth of *H. pylori* among asymptomatic children. This research is the latest in a large bank of clinical evidence to uncover positive health benefits of the North American cranberry.

They found probiotics and cranberry inhibit *H. pylori* with natural mechanisms, thereby reducing the risk of the side effects linked to antibiotics and help support a healthy balance of bacteria. *H. pylori* is thought to be present in up to 75% of the world's population, and is the most common cause of stomach ulcers and a risk factor for stomach cancer.

"This research is exciting as antibiotics are currently the only effective treatment for *H. pylori*," says Dr. Fritz Francois, Assistant Professor of Medicine at New York University School of Medicine. "Using cranberry juice and probiotics to possibly suppress growth of *H. pylori* is great news for physicians and patients who are seeking natural alternatives to antibiotics."

Cranberries possess the unusual A-type proanthocyanidins which help inhibit harmful bacteria from sticking to cells in the body. This anti-adhesion property is attributed to the reasons why cranberry helps prevent urinary tract infections, gastro-intestinal infections, gum disease and stomach ulcers. (source: www.npicenter.com).

Health and Research Professionals:

The Cranberry Health Newsletter is designed to bring the latest research about cranberry and health to practitioners concerned about the health and well being of patients.

If you would like a colleague to receive updates about cranberry health, subscribe by sending an email to (cinews@earthlink.net).