

# Cranberry Health News

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## ORAL HEALTH RESEARCH PRESENTED AT CRANBERRY SYMPOSIUM

New research suggests that cranberry juice may help prevent certain oral health problems, including diseases of the gums and teeth. Dr. Hyun Koo from the University of Rochester School of Dentistry examined cranberry juice's ability to prevent *Streptococcus mutans* bacteria from sticking to teeth. If the bacteria cannot adhere, then they cannot develop the buildup of dental plaque that covers the teeth and begins to cause cavities and even gum disease.

Dr. Koo presented his research at the Cranberry Institute's Second Biennial Cranberry Health Research Symposium, held in October in Lake Geneva, Wisconsin. Prominent health experts gathered from North America to present new findings on cranberries' role in preventing a number of diseases and infections.

In Dr. Koo's *in vitro* study, two daily doses of a beverage containing 25 percent cranberry juice inhibited bacteria binding and further accumulation to an artificial tooth surface by 67 to 85 percent. As new cranberry oral health products such as dental floss or toothpaste – already on the market – become more widely available, people around the country will be able to apply this research to their daily routines for a healthier smile.

The symposium also offered a glimpse into the research studies funded by a landmark \$2.6 million federal initiative to explore cranberries' health effects. The National Center for Complementary and Alternative Medicine (NCCAM) at the National Institutes of Health is funding nine cranberry studies, primarily researching the unique activity of cranberry in preventing the adhesion of certain disease-causing bacteria to cells and tissues in our bodies. ***See the Spring 2004 issue for the complete list of funded studies.***

While much of this program focuses on the well-known effect of cranberry in helping prevent urinary tract infections (UTIs), the NCCAM grants will also fund additional research by Dr. Koo on cranberries' bacteria-blocking mechanism at work in maintaining oral health. Other recent findings suggest a similar effect on the bacteria that cause most stomach ulcers.

Much of the research presented at the cranberry health symposium concentrated on more deeply understanding the effect on UTIs. A study by Dr. Amy Howell of Rutgers University and Dr. Kalpana Gupta of Yale University suggests a dose-dependent response. In this study, drinking eight ounces of cranberry juice more than doubled the benefit from drinking only four ounces.

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## Calendar of Events

**Natural Products Expo West**, March 17-20, 2005, Anaheim, CA. For more information, visit [www.expowest.com](http://www.expowest.com)

**Wisconsin Dietetic Association Annual Meeting – Visit the CI Booth**, April 27-29, 2005, Eau Claire, WI. For more information, visit [www.eatrightwisc.org](http://www.eatrightwisc.org)

**New York State Dietetic Association Annual Meeting – Attend the cranberry presentation**, May 6-7, 2005, Saratoga Springs, NY. For more information, visit [www.eatrightny.org](http://www.eatrightny.org)

**American Association of Nurse Practitioners Annual Meeting – Visit the CI Booth**, June 17-21, 2005, Ft. Lauderdale, FL. For more information, visit [www.aanp.org](http://www.aanp.org)

**American Dental Hygienists' Association Annual Meeting**, June 22-29, 2005, Henderson, NV. For more information, visit [www.adha.org](http://www.adha.org)

**School Nutrition Association Annual Meeting**, July 17-20, 2005, Baltimore, MD. For more information, visit [www.asfsa.org](http://www.asfsa.org)

## CRANBERRIES MAY BOOST HDL CHOLESTEROL

New findings from the University of Laval in Quebec, Canada, suggest that cranberries' antioxidant properties may shield the heart by boosting high density lipoprotein (HDL, or the "good" cholesterol).

Dr. Charles Couillard's clinical study followed 30 men, aged 18 to 70, over a 20-week period. The men were slightly overweight, with an elevated low density lipoprotein (LDL, or the "bad" cholesterol) level. The low-calorie cranberry juice cocktail consumed in the study increased participants' HDL by eight percent on average. Dr. Couillard recently presented the research at the Canadian Cardiovascular Society's Annual Congress in Calgary.

Dr. Couillard's results serve to validate and reinforce a wider body of heart disease research. Dr. Joe Vinson of the University of Scranton, for instance, has examined cranberry juice cocktail and found a ten percent increase in HDL levels among study participants, comparable to Dr. Couillard's findings. In Dr. Vinson's work, three servings a day of either light or regular cranberry juice cocktail raised HDL levels by five milligrams per deciliter, a statistically significant increase.

According to the American Heart Association (AHA), cardiovascular disease is the number one killer of women and men in the United States. The AHA recommends a healthy diet and regular exercise to help combat heart attacks, and recommends against more than one serving of alcohol per day. The growing collection of research findings suggest that a daily glass of low-calorie cranberry juice cocktail promotes healthy blood flow and protects the heart, with fewer calories than red wine.

## CRANBERRY SYMPOSIUM

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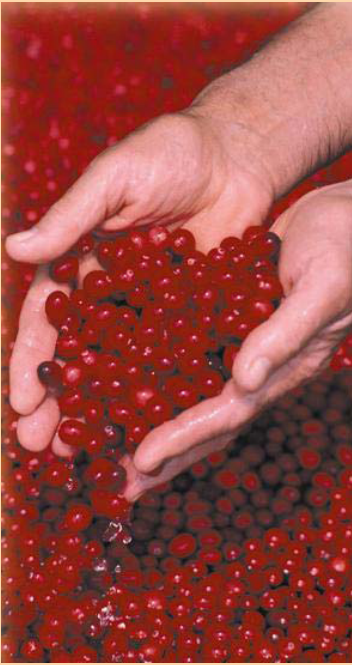
For symposium abstracts, please e-mail: [diana.steeble@publicis-usa.com](mailto:diana.steeble@publicis-usa.com)

Other recent research has investigated the naturally high levels of antioxidants in cranberries, one benefit of which may be to help protect the heart from cardiovascular disease. A limited study by Dr. Ted Wilson of Winona State University demonstrated a decrease in total blood cholesterol when low-calorie cranberry juice was consumed. (For research showing an increase in HDL levels, please see the above article.)

Additional research points to a potential link between cranberries and protection against brain cell damage during a stroke. A preliminary rat cell tissue study, led by principal investigator Dr. Catherine Neto at the University of Massachusetts-Dartmouth, suggests that cranberry may reduce the severity of a stroke via an antioxidant mechanism during the early stages of stroke, the point at which the most damage occurs.

Lastly, cranberries' antioxidant profile may also help prevent certain cancers. While data is preliminary, researchers from the University of Wisconsin-Madison, University of Massachusetts Dartmouth and UCLA are interested in cranberries' role in inhibiting growth of oral, prostate, colon, breast, cervical, lung and leukemia cancer cells.

## BREAST CANCER UPDATE: CRANBERRY FLAVONOIDS MAY INHIBIT CANCER CELL SPREAD



In laboratory experiments, Canadian researchers found that isolated compounds in cranberries may inhibit the growth of breast cancer cells, when consumed in sufficient concentrations. These naturally occurring flavonoids may also help prevent other forms of cancer, including cancers of the prostate, colon, lung and brain.

The study, led by Dr. Peter Ferguson of the University of Western Ontario and the London Regional Cancer Program, suggests that cranberry's flavonoids may block the further spread of estrogen-dependent breast cancer cells and cause the existing cancer cells to die. In Dr. Ferguson's study, a cranberry extract (containing 250 mg of flavonoids per liter) inhibited breast cancer cell proliferation by 50 percent. The researcher team concludes, in their recent article published in the *Journal of Nutrition*, that cranberry may be a novel anticancer agent. This has particular relevance given concern surrounding recurrence of drug-resistant tumors. The study received funding from the American Institute for Cancer Research.

Breast cancer is the leading form of cancer among American women, and ranks second only to lung cancer among cancer deaths. According to statistics from the Susan G. Komen Breast Cancer Foundation, an estimated 215,990 new cases of invasive breast cancer are expected to occur among women in the United States during 2004. An estimated 40,110 women will die from breast cancer.

### RECIPE FILE: CRANBERRY GINGER MARINADE



2 cups	Cranberry juice cocktail
1/2 cup	Cranberries, sweetened dried
1 teaspoon	Fresh ginger, grated
1 clove	Garlic, minced
1 1/4 – 1 1/2 lb	Chicken breasts, boneless and skinless, cut into 4x1x3/4-inch strips
2 tablespoons	Shallots, finely diced
1 tablespoon	Butter or margarine
1/2 cup	Carrots, peeled and cut into 2x1/8x1/8-inch strips
2 tablespoons	Chives, diced for garnish, if desired

#### Nutritional Analysis Per Serving for Cranberry Ginger Marinade:

Calories 310 (14% Calories from Fat), Protein 33g, Carbohydrate 33g, Fiber 1g, Fat 5g, Sat. Fat 2g, Cholesterol 90mg, Sodium 190mg.

1. Stir cranberry juice, cranberries, ginger and garlic in large bowl until blended. Add chicken, cover and marinate in refrigerator 1 to 2 hours. Remove chicken from marinade, reserve marinade. Salt and pepper chicken to taste.
2. Melt butter in medium saucepan. Add shallots and sauté over medium heat until transparent. Add marinade and bring to boil, uncovered, decrease heat and simmer 15 minutes, stirring occasionally, until reduced in half. Add carrots last 5 minutes of cooking.
3. Grill chicken over medium-high heat 4 to 5 minutes per side until juices run clear when pierced with fork or chicken reaches internal temperature of 165°F.
4. Place three pieces chicken on each plate; spoon marinade over chicken. Garnish with chives, if desired. Serve with seasonal vegetables. Makes 4 servings.