



# CRANBERRY HEALTH NEWS

a publication of the Cranberry Institute

## Meet the Polyphenols Researcher: Dr. Helmut Sies, Research Professor at Heinrich-Heine University, Dusseldorf, Germany

Helmut Sies, M.D., Ph.D., is one of the world's foremost authorities on bioactive compounds and oxidative stress, oxidants and antioxidants. He has published more than 600 original research papers and book chapters about nutrition, antioxidants and human health. Dr. Sies serves as member of the Cranberry Marketing Committee's Scientific Advisory Board and provides guidance on current cranberry health research, as well as future directions for scientific investigations.

According to Dr. Sies, the polyphenols in cranberry are unique in their chemical linkage to form the characteristic longer chains. This sets them apart from other polyphenol-rich food sources including colorful fruits and vegetables, herbs, cocoa and tea. Dr. Sies affirms that the urinary tract health benefits of cranberry are clinically relevant. Cranberry constituents may provide long-term benefits in the oral cavity and the gastrointestinal tract.

### Dr. Sies Recommendations for Future Research

Due to the growing research in the area of polyphenols for cardiovascular health benefits, Dr. Sies contends that the cardiovascular benefits of cranberry should be a continued area of focus. However, in order to better compare research results from around the world and advance the study of cranberries and health, Dr. Sies suggests that the industry work together to create a standardized "cranberry research product" that contains the same nutrient and bioactive profile.

Helmut Sies, M.D., Ph.D., studied Medicine at the Universities of Tübingen, Paris and Munich. He served as Professor and Chairman at the Institute of Biochemistry and Molecular Biology I at Heinrich-Heine-University Dusseldorf, Germany, where he now is a Research Professor. In May 2013, Dr. Sies was awarded the Linus Pauling Institute Prize for Health Research, and most recently the Outstanding Flavonoid Research Award at the International Conference on Polyphenols and Health, Buenos Aires, Argentina.

Dr. Sies lives in Germany. He enjoys dried cranberries in trail mixes for mountain hikes and when his wife puts them on top of salads.



## Low-Calorie Cranberry Juice Improves Biomarkers for Individuals with Metabolic Syndrome

Metabolic syndrome is the name of a host of conditions that include insulin resistance, high blood pressure, abdominal fat and dyslipidemia that significantly increase risk for heart disease, stroke and type 2 diabetes. Metabolic syndrome is an important public health issue, as it's estimated that approximately 25% of the U.S. population suffers from it. As a result of the insulin sensitivity and obesity, chronic inflammation is thought to be a risk of cardiovascular disease.

Researchers in Brazil sought to examine the effect of consuming reduced calorie cranberry juice on risk factors and biomarkers of inflammation and oxidation associated with metabolic syndrome. Published in the *British Journal of Nutrition* researchers randomly assigned 56 subjects with metabolic syndrome into one of two groups: 20 subjects were instructed to drink 24 oz. of a reduced calorie cranberry juice beverage daily for 60 days and the control group maintained their normal diet. The product used in the study was a reduced calorie cranberry juice beverage that provided 23 calories, 69 mg vitamin C and 14 mg folic acid per 8 oz. serving. Total daily phenolics from the 24 oz. of juice equaled 362.5 mg/day. The researchers monitored markers for inflammation, oxidative stress and metabolic dysfunction.

The results found that those drinking reduced calorie cranberry juice beverage had reductions in

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several markers for inflammation and oxidation. In addition, the cranberry-treatment group had an increase in adiponectin, a hormone that reduces inflammation, may increase fat oxidation and could lower blood sugar. At the same time, there was a decrease in the amino acid homocysteine, which has been correlated with an increased risk for heart disease. Research has shown that low levels of adiponectin and high levels of homocysteine are independent risk factors for heart disease, therefore improvements in these biomarkers by cranberry consumption is remarkable.

Reference: Simão TN, Lozovoy MA, Simão AN, Oliveira SR, Venturini D, Morimoto HK, Miglioranza LH, Dichi I. Reduced-energy cranberry juice increases folic acid and adiponectin and reduces homocysteine and oxidative stress in patients with the metabolic syndrome. *Br J Nutr.* 2013 Jun 11:1-10. [Epub ahead of print]

### Additional Evidence that Avoiding Cranberry Juice while on Warfarin is Not Necessary

Researchers in India reported in the *Journal of Pharmacy and Pharmaceutical Sciences* that cranberry juice consumption in normal amounts (two - three 8 oz. glasses per day) posed no health threat for patients on warfarin therapy. The current study is in agreement with previous clinical trials and scientific reviews that have concluded that consuming normal amounts of cranberry juice while on warfarin does not have a clinically significant effect. These results align with the most recent medication guide for warfarin approved by the Food and Drug Administration. ([CI News Fall 2012](#))

Reference: Srinivas NR. Re: Cranberry juice ingestion and clinical drug-drug interaction potentials; review of case studies and perspectives. *J Pharm Pharm Sci.* 2013;16(2):289-303.

### Cranberry and UTI Prevention: A Review of the Evidence

In the August 2013 issue of *Nutrition Research*, researchers from the University of Athens in Greece concluded that based on clinical trials, cranberry has a prophylactic effect on the development of urinary tract infections (UTIs). The authors outlined the proposed mechanisms of action by which cranberry provides a clinical benefit including anti-adhesion, nitric oxide pathways and through anti-inflammatory properties that may relieve symptoms associated with UTIs.

The authors strongly recommend additional well-designed, double-blind, placebo-controlled clinical trials that use standardized cranberry products to determine the impact of cranberry on the prevention of UTIs in susceptible populations.

Reference: Vasileiou I, Katsargyris A, Theocharis S, Giaginis C. Current clinical status on the preventive effects of cranberry consumption against urinary tract infections. *Nutr Res.* 2013 Aug;33(8):595-607. doi: 10.1016/j.nutres.2013.05.018. Epub 2013 Jul 1.

## Cooking with Cranberries

### Cranberry Sauce with Port and Tangerine

Makes 2 cups

This sauce can be made one week ahead and stored in an airtight container in the refrigerator. It is delicious on grilled salmon.

#### Ingredients

- 1 (12 oz.) bag of fresh or frozen cranberries
- 3/4 cup sugar
- 1/2 cup ruby Port
- 3 (1/2 in. each) strips of tangerine peel
- 1/3 cup tangerine juice (from about two tangerines)



#### Directions

1. In a small, heavy saucepan, bring cranberries, sugar, Port and tangerine peel to a simmer over medium heat, stirring until sugar has dissolved.
2. Simmer, uncovered, stirring occasionally, until cranberries burst, about 12 minutes.
3. Remove from heat and stir in tangerine juice.
4. Cool completely before serving.

Recipe courtesy of the [Cranberry Marketing Committee](#)

### Warm Spiced Cranberry Drink

**6 servings**

**Ingredients**

- 2 cups water
- 1/2 cup honey
- 2 whole cinnamon sticks
- 8 whole cloves
- 1/4 teaspoon ground nutmeg
- 2 cups 100% cranberry juice
- 1 cup orange juice
- 6 strips of orange peel (about 3 inches by 1/2 inch)



**Directions**

1. In a medium saucepan over high heat, combine water, honey and spices. Bring to a boil. Add juices, reduce heat and simmer about 10 minutes.
2. To serve, remove whole spices and then divide among 6 mugs. Garnish each mug with a strip of orange peel.

Recipe courtesy of the [Cranberry Marketing Committee](#)