Heart Health and Juice Plus+



The American Heart Association recommends eating eight or more fruit and vegetable servings every day. An average adult consuming 2,000 calories daily should aim for 4.5 cups of fruits and vegetables a day. Also, variety matters, so try a wide range of fruits and veggies.

On her "The Heart of the Matter" DVD (below), Dr. Tamara Sachs (Internal Medicine) discusses her professional experience with heart disease. She says:

"Health is more than the absence of disease: it is a balance between wellness and the many stressors in your life. The more active a participant you are in this dynamic process, the healthier a person you will become."

"Knowing what you need to do and actually doing it are two different things. Juice Plus+ is a perfect example. Knowing that we should eat more fruits and vegetables is one thing, but actually doing it is quite another. That's why I recommend Juice Plus+ to all of my patients. It is a powerful and compelling product for those who wish to protect their health. I would never want to be without it. It is my foundational product for my patients, and I rely on it for my health as well."

Here are the abstracts of **6 studies** which demonstrated significant improvement in markers of heart health for those taking Juice Plus+, including reduction in homocysteine, systemic inflammation and the negative effects of a high fat meal (watch the video!)

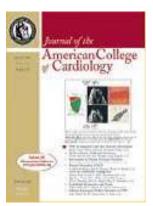
University of Maryland School of Medicine

Plotnick et al. Journal of the American College of Cardiology 2003

Thirty-eight healthy American volunteers took part in the study. Subjects were randomized groups to take Juice Plus+ Orchard Blend and Garden Blend, Juice Plus+ Orchard Blend, Garden Blend and Vineyard Blend, or placebo daily for 28 days.

A high fat meal caused a temporary deterioration of artery function in people taking a placebo – the arteries weren't as flexible.

However, the combination of Juice Plus+ Orchard, Garden and Vineyard capsules virtually eliminated these negative cardiovascular effects, helping the study subjects to respond to changes in blood flow.



Vanderbilt University School of Medicine

Houston et al. Journal of Evidence-Based Complementary and Alternative Medicine 2007

Juice Plus+ consumers monitored over two years showed improved systemic blood pressure and large artery compliance; improved glycated hemoglobin; improved antioxidant status; improved homocysteine; less than expected progression of coronary artery calcium score; and, no adverse side effects.

Researchers followed 51 hypertensive (on stable medication) and prehypertensive adults asymptomatic for heart disease over two years taking Juice Plus+ Orchard, Garden and Vineyard Blends. The



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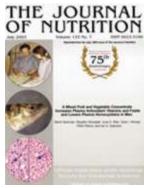
participants were primarily male (80%) with an average age of 61 years. They followed their habitual diet, exercise program, and other lifestyle behaviors and experienced no change in body weight. By the end of follow-up, both systolic and diastolic blood pressure decreased; large artery compliance improved; and, progression of coronary calcium score was smaller than expected. Folate, beta-carotene, Co-Q10, and alpha-tocopherol increased. Both glycated hemoglobin and homocysteine decreased.

University of Sydney in Australia Study

Samman et al. Journal of Nutrition 2003

When compared to placebo, Juice Plus+ increased plasma levels of important antioxidant nutrients, folate, and a functional measure of plasma antioxidant capacity, while effectively decreasing homocysteine, an established risk factor for CHD.

This study measured the effect Juice Plus+ on plasma levels of selected vitamins, recognized coronary heart disease (CHD) risk factors, and general antioxidant status. Thirty- two healthy Australian men participated in this double-blind, placebo-controlled randomized



crossover trial, consisting of two intervention periods of six weeks each, separated by a three week wash-out phase. During the intervention periods, subjects took either Juice Plus+ or placebo. Blood samples for nutrient analysis of and plasma antioxidant capacity were obtained at baseline, and again at the end of the third and sixth week for each intervention period. Plasma folate, vitamin C, alpha-tocopherol (vitamin E), retinol, and beta-carotene all increased significantly during the Juice Plus+ intervention period compared to placebo period. There was a trend (p = 0.065) for increased plasma antioxidant capacity, and a significant reduction in homocysteine during the Juice Plus+ intervention period.

Tokyo Women's Medical University

Kawashima et al. Asia Pacific Journal of Clinical Nutrition 2007

When compared to placebo, Juice Plus+ effectively increased plasma levels of important antioxidant nutrients and folate and reduced homocysteine.

This study compared the effect of Juice Plus+ or placebo on plasma levels of various micronutrients. This investigation had a randomized double-blind, placebo-controlled design and included 60 healthy Japanese men and women, with an average age of 27.8 years. About half of these study subjects were smokers. The study subjects took either Juice Plus+ or a placebo for 28 days. Concentrations of the



carotenoids beta-carotene and lycopene, vitamin E and folate significantly increased while homocysteine and lipid peroxides were significantly decreased in the Juice Plus+ group over this study period.

Foggia Italy

Panunzio et al. Nutrition Research 2003

The daily use of Juice Plus+ for four weeks increased folate and decreased homocysteine concentration in healthy Italian volunteers.

This study showed Juice Plus+ use led to a reduction in plasma homocysteine concentration. Twenty-six healthy Italian subjects (12 men and 14 women) aged 20-56 years, took part in this randomized, crossover study. The trial was separated into three phases of four weeks each: an initial treatment period, a washout period and a second treatment period. Folate level increased and homocysteine level decreased significantly in both groups while taking the Juice Plus+capsules, but not during the control period of this study.



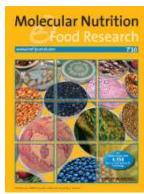
University of South Carolina

Jin et al. Molecular Nutrition & Food Research 2010

When compared to placebo, Juice Plus+ effectively reduced markers of systemic inflammatory load, increased plasma levels of important antioxidant nutrients and increased the antioxidant enzyme superoxide dismutase.

The researchers studied the impact of Juice Plus+ Orchard and Garden Blend, taken alone and in conjunction with Juice Plus+ Vineyard Blend: a) on levels of several important free radical-fighting antioxidants in the blood (as an indication of bioavailability); b) on levels of superoxide dismutase, an antioxidant enzyme that helps rid the body





Acute inflammation - the red skin around a cut, for example - is a normal protective response by tissues throughout the body to injury or destruction. However, chronic systemic inflammation is invisible, and can contribute to an increased risk for developing chronic conditions associated with premature aging such as cardiovascular disease, diabetes, and cancer. The South Carolina researchers hypothesized that added nutrition from fruits and vegetables - delivered in the form of Juice Plus+ - could positively impact biomarkers of inflammation in the blood.

In their recently published paper, the USC researchers reported: a) significantly increased levels of all three antioxidants (vitamin C, vitamin E, and beta-carotene) in both groups of Juice Plus+ groups, compared to placebo; b) significantly increased levels of superoxide dismutase in both groups; and c) significantly decreased levels of three key biomarkers of inflammation in both groups.