

JUICE PLUS+® PREVENTION *Plus* +®



New Juice Plus+® Research Published in *JACC*

University of Maryland study shows that Juice Plus+® helps improve circulation.



BETHESDA, MARYLAND – Can the whole food based nutrition of Juice Plus+® help improve circulation after eating a high-fat fast food meal? Researchers at the University of Maryland seem to think so.

A new clinical study published in the May 21, 2003 issue of the *Journal of the American College of Cardiology (JACC)* finds that subjects taking Juice Plus+® for 28 days were protected against detrimental cardiovascular effects of eating a high-fat meal, in this case a 900-calorie, fast food meal containing 50 grams of fat.

The nutritional components of fruits and vegetables provided by Juice Plus+® “appear to help blood vessels retain their ability to expand in response to increased blood flow, even after a high-fat meal,” according to the official American College of Cardiology press release announcing the study results.

The American College of Cardiology is a 28,000-member, nonprofit professional medical society and teaching institution dedicated to fostering optimal cardiovascular care and disease prevention. *JACC*, the organization’s official scientific journal, publishes original peer-reviewed clinical and experimental reports on all aspects of cardiovascular disease.

The University of Maryland study is the latest in a series of clinical studies by cardiologists Gary D. Plotnick, M.D. and Robert A. Vogel, M.D. Their previous work showed that consuming a high-fat meal causes constriction of major arteries and restriction of blood flow by half, an impairment that lasts up to five hours after consuming the meal. Plotnick and Vogel learned that fatty foods impair the responsiveness of the inner lining of blood vessels, known as the endothelium. Diminished endothelial reactivity can also be an early sign of atherosclerosis.

“We theorized that a high-fat meal, which increases triglycerides and free fatty acids and a lot of fats in the blood, causes oxidative stress, and then the oxidative stress causes the endothelium to become abnormal,” Dr. Plotnick elaborates. So the research team set out to determine whether adding a wide range of antioxidants from fruits and vegetables to combat the oxidative stress – in the

(continued on next page)

Inside...

Juice Plus+® on MSN/WebMD

Prevention Plus+ Profile: Delia Garcia, M.D.

New Juice Plus+® Product in Market Test

Maryland Study shows that Juice Plus+® helps improve circulation.

continued from front page

form of Juice Plus+® – would have a positive impact on the endothelium and resulting blood flow.

The University of Maryland study was double-blind and placebo-controlled: test subjects were randomized to receive capsules containing either Juice Plus+® Garden and Orchard Blends alone; Juice Plus+® Garden, Orchard and Vineyard Blends; or placebo capsules.

After taking the capsules daily for four weeks, the blood vessels of subjects who received Juice Plus+® Garden and Orchard Blend were better able to respond to changes in blood flow compared to the blood vessels of volunteers who received placebo capsules. The combination of all three types of Juice Plus+® capsules virtually eliminated the negative cardiovascular effect of eating the high-fat meal.

“The University of Maryland study is the latest addition to a growing body of Juice Plus+® research,” explains John Blair, Vice-President of Product Research and Development for NSA, the maker of Juice Plus+®. Previous research published in peer-reviewed medical journals shows that taking Juice Plus+® delivers signifi-

cantly increased quantities of key antioxidants into the bloodstream (*Current Therapeutic Research*) and can help strengthen the immune system (*Integrative Medicine*) and reduce DNA damage (*Nutrition Research*).



John Blair

“What’s especially impressive is that the research consistently shows that people realize the benefits of taking Juice Plus+® very quickly,” Blair adds. “The Maryland results were achieved after only 28 days.”

Dr. Plotnick is quick to caution that the results of his study do not suggest that as long as you’re taking Juice Plus+® you can eat as much fast food as you want to. “Your mother was right: you should eat well-balanced meals with fruits and vegetables.”

Of course, we know that people can’t, won’t or don’t do that, certainly not every day. That’s why Juice Plus+® is such a convenient alternative, for both medical researchers and the general public alike.

Veggies Ward Off “Big Mac’s Attack”

*by Daniel DeNoon, senior medical writer, WebMD
Reviewed for medical accuracy by Brunilda Nazario, M.D.*

(Reprinted from MSN/WebMD Medical News)

May 21, 2003 – Eating a lot of heart-healthy foods keeps your arteries in fighting trim. Trim enough to fight off the effects of a fast food meal, a new study suggests.

Those who got the [Juice Plus+®] were largely protected.

The detrimental effect of the high-fat

Earlier work by University of Maryland researcher Gary D. Plotnick, M.D. and colleagues showed that eating a high-fat meal puts a whammy on your circulation. Normally, arteries expand when there’s a sudden increase

in blood flow. Eat a high-fat meal, however, and your arteries lose this ability for at least four hours.

When subjects took antioxidant supplements – or ate a green salad – just before eating a high-fat meal, Plotnick’s team found it blunted these high-fat effects. Now the researchers show that people who’ve been eating well all along might have the same kind of protection.

To mimic a heart-healthy diet, the researchers had volunteers take capsules full of a fruit and vegetable concentrate (Juice Plus+®) for four weeks. Other volunteers took fake capsules, while others got a version of the capsules rich in antioxidant vitamins (Juice Plus+® with Vineyard). The study was partially funded by the manufacturer of Juice Plus+®.

Then came the challenge. After four weeks of taking the capsules twice a day, the volunteers ate a high-fat meal: an Egg McMuffin, a Sausage McMuffin, two McDonald’s hash brown patties and a non-caffeinated beverage. This added up to 50 grams of fat, 14 grams of saturated fat, and



Prevention Plus+ Profile: Delia Garcia, M.D.

Home: St. Louis, Missouri

Medical specialty: Radiation Oncologist, practicing for 20 years

Education: Graduated *summa cum laude* from Western Illinois University (1976). Graduated from Southern Illinois University School of Medicine (1979). Internship at University of Wisconsin Hospital (1979-80). Resident/Chief Resident at Washington University School of Medicine in St. Louis (1980-83).

Current positions: Director, Radiation Oncology, St. Louis Cancer and Breast Institute. Consulting Staff, Missouri Baptist Hospital in St. Louis.

Fellowships and appointments: American Cancer Society Clinical Fellowship (1981-82). Assistant Professor of Radiation Therapy and Oncology, Medical College of Virginia (1983-84). Assistant Professor of Radiology at Washington University School of Medicine (1984-1992). American College of Radiology Fellowship (2001).

Other professional accomplishments

and awards: Author of over 40 scientific publications and book chapters. Founding Member, St. Louis Cancer and Breast Institute (1999). Listed in America's *Top-Rated Physicians* as a leading expert on breast cancer.

Community service: Professional Advisory Board Member, Susan G. Komen Breast Cancer Foundation ("Race for the Cure") and The Wellness Community of Greater St. Louis.

Health advice: "Take responsibility for your health, and you will be astounded by the benefits. Stop smoking; eat more fruits, vegetables, and whole grains; exercise daily; and, drink plenty of water. Life is not a dress rehearsal! Simple measures can make a huge difference in disease prevention."

Why she recommends Juice Plus+®: "Last year alone, I consulted with 600 new patients diagnosed with cancer. The sad truth is that many of these cases might have been prevented through sound nutrition, stress reduction, and an overall healthy lifestyle.

"As a busy professional and mother of three, I realize how difficult it is to eat the way we should, especially day in and day out. Juice Plus+® is the perfect way to ensure we all get more of the good, disease-fighting, whole food based nutrition we really need."

*"Take responsibility
for your health.
Life is not a
dress rehearsal!"*

Dr. Delia Garcia is one of the many prominent health professionals speaking to audiences around the world as part of our Juice Plus+® Prevention Plus+ Health Education Series. If you would like to attend a Prevention Plus+ Seminar in your area, ask your Juice Plus+® representative or call our Preferred Customer Hotline at 1-800-347-4014.

225 mg of cholesterol.

This meal caused the expected temporary deterioration of artery function in those who got the fake pills – their arteries weren't as flexible. But those who got the fruit and veggie supplements were largely protected – even though they didn't take the capsules on the day of the challenge. The detrimental effect of the high-fat meal on the arteries was blunted.

"It is interesting to note that, whereas the supplementation provided in this study [Juice Plus+®] provided only modest doses of any one antioxidant, the cumulative effect of these

antioxidants appeared at least comparable to the protection afforded by large doses of two supplemental antioxidants [vitamins C and E] in our previous study."

"Maybe it's the balance of everything in those capsules, rather than a single vitamin, that might be beneficial," Plotnick says. "That might explain why people who eat a healthy diet have a better prognosis."



Growing Scientific Interest in Juice Plus+®

Juice Plus+® continues to be the best researched nutritional product in the world. The University of Maryland study is just one example of the interest Juice Plus+® is generating in various medical specialties.

Juice Plus+® clinical research is currently being conducted on the nutritional status of coronary heart disease patients by researchers at Vanderbilt University; ovarian cancer patients at MD Anderson Cancer Center; head and neck cancer patients at Wake Forest University; and pregnant women by researchers at the University of Mississippi.

New Juice Plus+® Product Now in Market Test

One group of subjects in the the University of Maryland study was given a new Juice Plus+® product in addition to their “regular” Juice Plus+®. Juice Plus+® Vineyard Blend is currently being market tested for possible broader introduction.

Vineyard Blend provides additional whole food based nutrition – the nutritional essence of eight different varieties of berries and grapes – in convenient capsule form. It contains juice powders from highest quality blueberries, blackberries, bilberries, raspberries, elderberries, concord grapes, black currants, and red currants. These foods have been shown to provide some of nature’s most powerful antioxidants, anthocyanins, and polyphenols.

In addition to providing many general nutritional benefits, Juice Plus+® Vineyard Blend has been specifically formulated with cardiovascular health in mind. Thus, Vineyard Blend also contains a proprietary mixture of other natural powders and extracts that are derived from green tea, ginger root, grape skin, grape seed, and bilberry leaves; and include arginine, L-carnitine, coenzyme Q10, and vitamins C and E.

If you would like to try Vineyard Blend and be part of our product evaluation process, please contact your Juice Plus+® representative.

Code
955200