

The logo for XANGO NEWS CENTER. It features the word "XANGO" in white, bold, uppercase letters on an orange rectangular background. Below this, the words "NEWS CENTER" are written in white, uppercase letters on a grey rectangular background. The entire logo is centered at the top of the page, with a thin grey curved line passing behind it.

**XANGO™**

**NEWS CENTER**

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**CONTACT**

Drew Milam

XanGo LLC c/o

Publicis Consultants PR

(206) 270-4672

Drew.Milam@Publicis-PR.com

**Human Clinical Study Finds XanGo® Juice May Help Lower Marker of Inflammation and Improve Weight and Body Fat**

*Study Suggests Mangosteen Juice May Also Play Role in Reducing the Risk of Heart Disease and Diabetes*

LEHI, UT- A new study published in *Nutrition Journal* indicates that [XanGo® Juice](#), a market-leading, premium mangosteen beverage, has lowered levels of C-reactive protein (CRP) in overweight and obese people in a randomized, double-blind, placebo-controlled human trial. CRP is a marker used to measure inflammation levels, and a reduction in CRP may indicate a corresponding reduction in the risk of heart disease and diabetes. This study also suggests that XanGo Juice has healthful properties for weight management.

Mike Pugh, a scientist at [XanGo](#), explains, "The reason why the scientific community is interested in probing inflammation is that it may be an early indicator of heart attack, stroke and diabetes, potentially even lung disease, skin conditions and arthritis. So, scientists test CRP as a first step in assessing an individual's level of inflammation, and then, in turn, they use that to help picture a patient's potential for these serious diseases." Current understanding of body fat suggests that reducing inflammation may also assist in managing one's weight, which may have wellness benefits of its own.

XanGo's chief marketing officer, Larry Macfarlane, elaborates on why XanGo wholeheartedly supported the research performed by Dr. Jay Udani at Medicus Research in California, "Sometimes, consumers turn to pharmaceutical products as a preventive measure to maintain good health. While consumers should always consult with their healthcare provider before changing their dietary regimen, XanGo realizes that our flagship product, XanGo Juice, might provide a natural alternative for maintaining good health."

In the study, Dr. Udani tested three different dosages (varying between three to nine ounces) of [XanGo Juice](#) against a placebo. Participants consumed the assigned beverages twice a day, in the morning and evening. All three dosages of XanGo Juice demonstrated an ability to reduce CRP as a marker of inflammation. Dr. Udani comments, "Across all dosages, the degree of reduction in CRP levels was notable, ranging from a 1.33 mg/L to 6.66 mg/L change. The placebo group, however, actually experienced an increase, with CRP levels up 0.9 mg/L."

[XanGo Juice](#) also led to increased metabolic function for study participants. Body fat percentage was significantly different between the three-ounce juice group and placebo. This three-ounce group also experienced a significantly lower body mass index (BMI) score compared with placebo at eight weeks, and the six-ounce group had significantly lower BMI at four weeks.

Dr. Udani reports that no side effects or safety concerns emerged at any dosage tested, and cautions that longer studies with larger numbers of participants are needed to confirm the findings and further probe a possible dose-dependent effect. However, this first human clinical trial points to exciting avenues for XanGo Juice's use in the maintenance of heart health and other conditions that may be connected to inflammation.

Previous research shows the [xanthones](#) in XanGo Juice may possess antioxidant and anti-inflammatory properties that may help sustain a healthy cardiovascular system, support cartilage and joint function, support the immune system, promote a healthy seasonal respiratory system, maintain intestinal health and neutralize free radicals.\*

XanGo Juice is sold by XanGo's global network of more than 1 million independent distributors. To locate a distributor near you, visit <http://www.xango.com>.

### **About XanGo, LLC**

A leading global nutrition company, XanGo, LLC is a recognized leader in health and wellness products. Currently expanding into a wider range of botanicals, XanGo was the first company to market a premium mangosteen beverage, XanGo® Juice, to consumers worldwide. Its roster of premium, functional products now includes XANGO 3SIXTY5™, a whole food nutrition multi-vitamin, Glimpse® Topical Skin Nutrition and eleviv™ for natural, youthful vigor. XanGo is privately-owned and powered by a global network of more than 1 million independent distributors in the U.S. and more than 30 international markets such as Canada, Mexico, Japan, Germany and Malaysia. For details, visit <http://www.xango.com>.

\*These statements have not been evaluated by the Food and Drug Administration.



Research

# Evaluation of Mangosteen juice blend on biomarkers of inflammation in obese subjects: a pilot, dose finding study.

Jay K Udani Betsy B Singh, Marilyn L Barrett and Vijay J Singh

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## Abstract (provisional)

### Background

The ability to reduce inflammation in overweight and obese individuals may be valuable in preventing the progression to metabolic syndrome with associated risks for heart disease and diabetes. The purpose of this study was to evaluate the effect of multiple dosages of a proprietary Mangosteen Juice blend on indicators of inflammation and antioxidant levels in obese patients with elevated C-reactive protein (CRP) levels.

### Methods

The study was an 8 week randomized, double-blind, placebo-controlled study with a pre-study 2- week washout period. The study included four groups including placebo and three difference doses of the test product, XanGo Juice(TM): 3, 6 or 9 oz twice daily. The primary outcome measure of this study was high-sensitivity (HS)-CRP. Secondary outcome measures included other biochemical indicators of inflammation, anthropomorphic measures and a safety evaluation.

### Results

One hundred twenty two persons were screened for the study, 44 were randomized and 40 completed the study. HS-CRP measurements dropped after 8 weeks treatment compared to baseline in all 3 dose groups and increased in the placebo group. The changes from baseline were not significant but the comparison of change from baseline was significant for the 18oz group when compared to placebo ( $p=0.02$ ). Other markers of inflammation (inflammatory cytokines) and a marker for lipid peroxidation (F2 Isoprostane) did not show any significant differences when compared with placebo. There was a trend towards a decrease in BMI in the juice groups. There were no side effects reported in any of the groups and none of the laboratory or EKG safety assessments indicated clinically significant changes for any subject.

### Conclusions

In this pilot, dose-finding study, a proprietary mangosteen juice blend (XanGo Juice) reduced CRP levels (increased change from baseline) compared to placebo for those taking the highest dose of 18 oz. per day. Further studies with a larger population are required to confirm and further define the benefits of this juice. The juice was administered safely.

<http://www.nutritionj.com/>

## Frequently Asked Questions

Q. What is the study title?

A. A proprietary Mangosteen juice for the reduction of inflammation: A randomized, double-blind, Placebo-controlled, dose finding study.

Q. Can I access this study if I or one of my acquaintances wants it?

A. This study is accessible on Medline (<http://www.ncbi.nlm.nih.gov/pubmed/>) . It may also be accessed on the Nutrition Journal Web site at <http://www.nutritionj.com>.

Q. Where was the study conducted and by whom?

A. This study was conducted by Medicus Research, a respected and reputable clinical research organization located in California. Medicus Research was founded and is directed by Dr. Jay Udani, M.D., who is also the chief researcher on this study.

Q. What was the purpose of the study?

A. The purpose of this dose finding pilot study was to evaluate the efficacy of multiple dosages of XanGo® Juice compared with placebo. Medicus Research monitored the improvement of inflammation and antioxidant levels in obese patients with a confirmed history of inflammation.

Q. What is the significance of this study?

A. This study is the first, but not the last, double-blind, placebo-controlled peer reviewed, and published human clinical study on XanGo Juice. In this study, researchers showed a significant reduction of C-reactive protein, which strengthens our claim that XanGo Juice supports a healthy cardiovascular system. This study also showed data supporting a healthy metabolism through moderate reduction in BMI.

Additional studies are needed to confirm the findings and further probe a possible dose-dependent effect. However, this first human clinical trial points to exciting avenues for XanGo Juice's use in the maintenance of heart health and other conditions that may be connected to inflammation.

Q. What is C-Reactive Protein? Why is it important to health?

A. C-Reactive Protein or CRP is produced in the liver and is a general indication of inflammation in the body. A more sensitive CRP test, called a high-sensitivity C-reactive protein (hs-CRP) assay, is available to determine a person's risk for heart disease. Many consider a high CRP level to be a risk factor for heart disease and diabetes, among other conditions.

- Q. What is BMI?
- A. Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI provides a reliable indicator of obesity for most people and is used to screen for weight categories.
- Q. Has this study won any awards?
- A. Yes, this study was displayed in the poster session at the annual Scripps Conference in 2009 and won second prize.
- Q. What is XanGo's affiliation with this study?
- A. This study was conducted in a reputable, third party clinical research house. The study was funded by XanGo. The study's findings are leading to larger, more in-depth human clinical trials on XanGo Juice, being conducted by internationally respected and acclaimed institutions.
- Q. How should distributors use this research to educate their consumers?
- A. This research is exciting and certainly points toward continued validation of the many tremendous health benefits that millions of consumers have received from XanGo Juice. While impressive, it is important to note that further research is needed to confirm these findings.

It remains important that, while science continues to discover what many of us already know about XanGo Juice, based on our own personal consumption, we remain compliant in how we talk about the product. This would include following the approved structure/function claims available on [xango.com](http://xango.com) and MXO.

Additionally, please refer consumers to the press release on [xango.com](http://xango.com) as well as the actual study on Nutrition Journal's Web site. The study's results speak for themselves.