

XANGO at a glance

In 2002, the founders of XANGO launched the world's first global mangosteen product: XANGO Juice. Establishing a new standard for the wellness industry XANGO gave birth to a groundbreaking category-creating product and record-setting company — all built around the power of the mangosteen.

In Asia, the mangosteen has been used for centuries as a traditional preparation, from topical applications to medicinal teas. So powerful that mangosteen was respectfully, and appropriately, called the Queen of Fruits; today scientists refer to it as *Garcinia mangostana*. XANGO Juice harnesses the power of the mangosteen fruit to deliver a unique payload of xanthenes and phytonutrients in the most delicious, easily absorbed package possible. Today millions of people around the world have enjoyed the plethora of benefits that XANGO Juice offers.

Uncompromising quality, sound science, sensational flavor and an authoritative brand presence have made XANGO the only name of consequence in mangosteen nutrition. And after nearly a decade, XANGO still defines the category.



XANGO JUICE

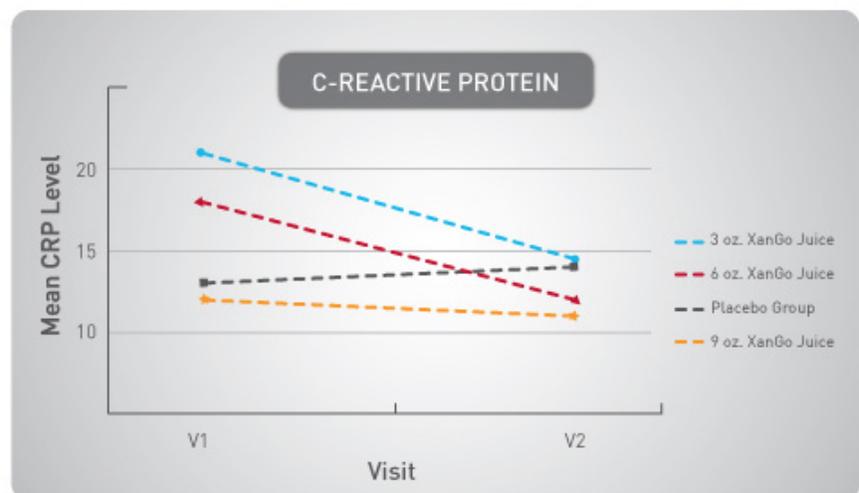
Harnessing mangosteen's remarkable whole-fruit properties, XANGO Juice provides biologically active compounds and phytonutrients—including xanthenes, catechins, flavonoids and proanthocyanidins—to support respiratory health, immune health, intestinal health and joint health.

- Supports cardiovascular health*
- Supports cartilage and joint function*
- Maintains intestinal health*
- Promotes a healthy seasonal respiratory system*
- Promotes a healthy metabolism*
- Supports the immune system*
- Neutralizes free radicals*

SOUND SCIENCE

Substantiated by an 8-week clinical study¹, XANGO Juice demonstrated an ability to reduce CRP levels, an indicator of cardiovascular health, while a placebo group experienced a small increase in CRP levels.* Numerous other scientific studies have been and are being conducted on the mangosteen and XANGO Juice. In fact, the world-renowned Mayo Clinic is using XANGO Juice in an independent, multi-year study to measure the long-term benefits of the mangosteen.

1 Study conducted by Medicus Research, Published in 2010 Nutrition Journal, third-party, double-blind, placebo-controlled. For more information visit <http://www.XANGO.com/science/clinical-trial>



ABOUT XANGO JUICE

What is XANGO Juice?

XANGO Juice is the original mangosteen dietary supplement that captures the refreshing, tangy flavor and natural color of the mangosteen fruit. XANGO Juice's proprietary, puree formula use the whole mangosteen fruit, from its dark reddish purple nutrient-dense rind to the white fleshy pulp – through which all of the mangosteen health benefits are delivered as nature intended.

What are xanthones?

While most people know about the antioxidant benefits of vitamins C and E, far fewer are aware of the incredibly potent antioxidant power of xanthones – *found naturally in the mangosteen fruit*. Xanthones are powerful phytonutrients, naturally occurring nutrients found in plants, which have won high praise from numerous scientists and researchers. Major medical institutions around the world continue to study xanthones for their potential to support long-term health.

Tell me more about the mangosteen.

Referred by scientists and medical researchers as *Garcinia Mangostana*, the mangosteen is indigenous to Southeast Asia - only cultivated under perfect conditions. The mangosteen fruit itself contains 39 known xanthones and the majority of those are found in the pericarp of the fruit.

HOW TO USE:

Suggested Use: Take 1-3 oz. daily.

Supplement Facts	
Serving Size: 1 fl.oz. (30mL)	
Servings per container: 25	
Amount Per Serving	% Daily Value
Calories	13
Total Carbohydrate	3.2g 1%*
Sugar	2.7g †
Proprietary Blend	32g
Whole Mangosteen Purée (<i>Garcinia mangostana L.</i>)	†
Grape Juice Concentrate	†
Pear Juice Concentrate	†
Apple Juice Concentrate	†
Pear Purée	†
Blueberry Juice Concentrate	†
Strawberry Juice Concentrate	†
Raspberry Juice Concentrate	†
Cranberry Juice Concentrate	†
Cherry Juice Concentrate	†
† Daily Value not established.	
* Percent of Daily Value based on a 2000 calorie diet.	

Other Ingredients: Citric acid, natural flavor, pectin, xanthan gum, sodium benzoate.

Inflammation: A unifying theory of disease?

Research is showing that chronic inflammation may be the common factor in many diseases.

When it comes to risk reduction, it often seems as though we need to keep a running tab of things to avoid or embrace. Lay off saturated fats to keep our arteries clean. Steer clear of carbs to stave off diabetes. Stay away from smoking to prevent lung cancer. Solve the sudoku puzzle to outwit dementia. And exercise, exercise, exercise! Wouldn't it be nice if there were a one-stop approach to health just as there is to shopping?

Although there may never be such a single path, mounting evidence suggests a common underlying cause of major degenerative diseases. The four horsemen of the medical apocalypse—coronary artery disease, diabetes, cancer, and Alzheimer's—may be riding the same steed: inflammation.

New research on inflammation has created a shift in medical thinking. For two millennia it has been viewed mainly as a necessary, even beneficial, response to illness or injury. But now both observational studies and laboratory research are indicating that inflammation can be more of a bane than boon, the common, causative factor in many diseases.

What is inflammation?

Inflammation is part of the immune response. It's a process that depends both on the physical actions of white blood cells and the chemicals that they produce: antibodies, cytokines, and the like. Over the last several decades, scientists have identified dozens of new immunological and inflammatory molecules and the pathways through which they interact. The loops and feedbacks of those pathways mean inflammation can be turned on and off in any number of ways. The problem comes when it is left on, for no apparent reason.

For simplicity's sake, immunologists still describe inflammation as dependent on two basic processes. The first, innate immunity, relies on granule-

cytes and complement. Granulocytes are short-lived white blood cells containing enzyme-filled granules that dissolve foreign substances. Complement is an array of circulating proteins produced in a cascade of enzymatic activity in the presence of microbes.

The second process, adaptive immunity, is directed specifically at microbes that have invaded the body previously. Its largely the responsibility of white blood cells called lymphocytes. T lymphocytes, or T cells, are the master strategists of the process, directing cells and chemicals to eradicate the invader. B lymphocytes, or B cells, produce antibodies, which attach to specific pathogens and call in the complement to help dispatch the invader. Macrophages (literally "big eaters") are the scavengers, swooping in to eliminate the remains of microbes, dead granulocytes, and cellular debris created in the skirmish. While they clean up, macrophages also process information about individual pathogens and transmit it to the lymphocytes, which store the information for future reference.

As pathogens are eliminated, suppressor T cells turn down the inflammatory response, so the regeneration of tissue injured either by the invader or by "friendly fire" from the immune system can begin. Fibroblasts, cells that produce collagen and fibrin, arrive to create a scaffold for new tissue cells. If the damage is extensive, fibrin and collagen may become thick enough to replace the original tissue and form a scar.

Chronic inflammation

The first-century Roman physician Aurelius Cornelius Celsus described the four cardinal signs of inflammation—*color* (heat), *dolor* (pain), *rubor* (redness), and *tumor* (swelling)—a Latin litany still learned by medical students today. But these symptoms are mainly tip-offs for acute inflammation.

Chronic inflammation often stays

under the patient's—and doctor's—radar.

It occurs when the triggering agent isn't entirely eliminated or the suppressor T cells don't call off the immune system after the body has repulsed the invasion.

All of us adults have some level of chronic inflammation slowly waging a war of attrition on tissues and organs, its activity often evidenced only in blood tests. But if it's turned up a notch or two, chronic inflammation can wear away at the body so that the damage is devastating.

We've some evidence of inflammations sweeping, "cross-platform" effects. Observational studies, like the Framingham Heart Study and the Nurses' Health Study, have found lower rates of a number of degenerative diseases in people who take nonsteroidal anti-inflammatory drugs (NSAIDs) regularly—usually for pain or arthritis. High levels of C-reactive protein (CRP), a marker for inflammation, are associated with several illnesses.

But for the most part, our ideas about disease are organized by organ system, so scientists have tended to focus on the inflammatory process in particular organs or tissues. They are beginning to work out how inflammation lays the groundwork for the following:

Coronary artery disease. Cardiovascular research indicates that inflammation acts in concert with an excess of "bad" LDL cholesterol to create atherosclerosis. At high blood levels, LDL cholesterol becomes oxidized. That makes it recognizable to the immune system and marks it for ingestion by macrophages. The lipid-loaded macrophages trigger complement activity that damages the vascular endothelium—the layer of cells that lines the inside of blood vessels. Macrophages and their fatty cargo slip through the resulting cracks and lodge next to the arterial wall, where they are encased in a shell of fibrin and form arterial plaque.

As the plaque grows and its fibrin coat is stressed, it may rupture, forming a clot that blocks a coronary artery supplying oxygen to the heart muscle. Heart tissue nourished by the artery then dies, causing a heart attack.

Studies have determined that people whose CRP levels rank in the top third, are twice as likely to have a heart attack as those with CRPs in the lowest third. The risk is even greater if a person also has high cholesterol. More doctors are adding a CRP test to the battery of routine screening tests for adults.

Diabetes. Several large observational studies have shown that people with high levels of CRP are more likely to develop insulin resistance, a precursor to full-fledged diabetes in which cells rebuff insulin and therefore don't properly metabolize glucose circulating in the blood. Researchers have also found that people who ultimately develop diabetes have high levels of inflammatory molecules, including TNF- α , a molecule produced by macrophages, and T cells.

TNF- α seems to increase the liver's production of glucose and triglycerides and interfere with insulin's duties as a blood sugar escort. Moreover, insulin has anti-inflammatory effects of its own. Thus inflammation not only sets the stage for insulin resistance but accelerates as insulin resistance sets in, which may further hasten the onset of diabetes.

Cancer. Nearly 150 years ago, the pathologist Rudolf Virchow termed cancer a "wound that doesn't heal." He noticed that tissue from malignant tumors contained high concentrations of inflammatory cells and hypothesized that the tumors often formed at sites of chronic inflammation. Recent evidence suggests that he was right. About 15% of cancers—including cancers of the liver, cervix, and stomach—are closely linked to infectious diseases. Cigarette smoke and asbestos contain inflammatory substances. Exposure to cigarette smoke is a notorious cause of lung cancer, and exposure to asbestos is linked to mesothelioma, a cancer of the tissue lining the chest.

Moreover, laboratory research has shown that products of inflammatory reactions, such as reactive oxygen species, damage cellular DNA, creating mutant genes that lead to cancer. Macrophages, the mop-up molecules in the inflammatory process, churn out numerous tumor growth factors and appear to spur on angiogenesis, the growth of new blood vessels that nurture tumor cells with a fresh supply of blood. In short, malignant tissues seem to commandeer many of the inflammatory weapons sent out to vanquish them.

Alzheimer's disease. Doctors once thought the central nervous system was outside the reach of the immune system. The blood/brain barrier, formed by tightened capillaries, acts like a bouncer, screening out inflammatory cells and molecules so they can't enter the brain. Yet observational studies have found links between NSAIDs (aspirin, ibuprofen, and naproxen), COX-2 inhibitors, and other anti-inflammatory medications and a lower risk of Alzheimer's disease. In addition, the brain may have its own branch of the immune system. Cells inside the brain called microglia, the counterparts to macrophages, swarm and engulf foreign substances and release TNF- α and other inflammatory molecules. Excess production of a molecule called beta-amyloid appears to play an important, and perhaps initiating, role in Alzheimer's disease, but the immune response may also be involved. Once microglia ingest beta-amyloid, they become enshrouded in fibrin and form the plaques characteristic of the disease.

Preventing inflammation

Inflammation is now a fertile field for basic research. The recently discovered gene for selenoprotein S, a protein that plays a pivotal role in controlling inflammation, may lead to a test predicting who is at high risk for inflammatory disorders, and to the development of new drugs for chronic inflammation.

There are already scores of anti-inflammatory agents on the market, ranging from plain old aspirin to high-tech bio-engineered molecules for treating asthma, rheumatoid arthritis, and multiple sclerosis. Long-term use of NSAIDs is a balancing act, because while it may keep the fires of inflammation burning low, it can also cause stomach bleeding and liver and kidney damage. The COX-2 inhibitors, especially rofecoxib (Vioxx), have been linked to increased heart attack risk. Still, the daily 81-mg dose of aspirin recommended for people at high risk for heart attack is a safe bet.

Commonsense health practices may also help. Keep regular dental appointments to spot and treat periodontal disease; the evidence is mixed, but some research has sketched a possible link between gum disease and coronary artery disease. Take the full prescribed dose of antibiotics to prevent lingering infection and re-infection with resistant bacterial strains.

Low-calorie diets and moderate exercise remain the surest thing for preventing degenerative inflammatory disease. Obesity is linked to high CRP levels, as are "bad" fats and refined carbohydrates. Saturated and trans fats tend to stoke the immune response, while omega-3 fatty acids (in fish oils) and monounsaturated fats (such as olive and canola oils) may dampen it. Highly processed carbohydrates may promote inflammation by aiding the formation of free radicals, so whole grains with unrefined carbs are more healthful. Alcohol — in moderation only — also cools off inflammation.

So, for now, it looks as though the recognition of inflammation's role in disease doesn't alter the standard prevention dogma—see a doctor regularly for checkups, follow a sensible diet, exercise routinely, avoid cigarettes, imbibe but with restraint, and take a baby aspirin if you've had a heart attack or you fall into a high-risk category for heart disease. Those practices may hold the dreaded horsemen at bay by keeping their steeds in the stable. ®



Science of the Mangosteen and the Role of Inflammation on Chronic Disease

Les Berenson M.D., F.A.C.P.

The Mangosteen fruit has extremely powerful **NATURAL anti-inflammatory properties & more than 40 different antioxidants.**

Are you one of the tens of millions of people in the U.S. with chronic pain and wondering what to do? Are you aware of many diseases where inflammation is now felt to be a central component?

Cancer

Inflammation increases the spread of abnormal cells & provides the fuel that facilitates their transformation into cancer cells

Heart Disease

Inflammation is a major cause of heart attacks and strokes

Alzheimer's

Inflammation chews up nerve cells

Diabetes

Inflammation promotes insulin resistance keeping insulin from functioning

Allergies & Asthma

Chronic Inflammation is related to Allergies & Asthma in the lungs

Arthritis & Auto-Immune Disease

Inflammation affects the joints and other tissues

Xanthone Effect

Mangosteen contains over 40 DIFFERENT Xanthone anti-oxidants, a powerful new class of antioxidants, as well as the same Catechins found in Green Tea, as well as Proanthocyanidins, Polysaccharides, and Polyphenols!

What separates Mangosteen from all other anti-oxidants are the 40+ POWERFULL Xanthenes, EACH Xanthone having, DIFFERENT properties. Mangosteen has MULTIPLE potential health benefits, unique for antioxidants!

- Cardioprotective
- Antidepressant
- Anti-arthritic & osteoporotic
- Antibacterial & Antiviral
- Anti-Alzheimer's
- Antifungal & TB
- Antiaging
- Supports Body to Reduce Pain

Natural Anti-inflammatory

There is over 100 years of scientific research on the power of mangosteen and xanthenes. Dr. James Duke, who retired in 1995, long before the 1st commercial Mangosteen juice arrived, is one of America's foremost ethnobotanists. He worked for 35 years for the USDA and the University of Maryland. One of his major accomplishments is a remarkable phytochemical & botanical database which is now well known on the Internet. This list identifies 138 separate qualities for Mangosteen based on scientific research.

The traditional approach to treating inflammation and pain is with anti-inflammatory drugs (such as aspirin, Ibuprofen and Naproxen) and with "COX-2 Inhibitors" (such as Vioxx and Celebrex). These man-made drugs have SERIOUS side effects including ulcers, bleeding problems and the increase in heart attacks with the "man made" Cox 2 inhibitors.

More than 50 million people are estimated to take aspirin as an anti-inflammatory for its cardioprotective effects. The major risk of anti-inflammatory drugs (including aspirin) is the risk of bleeding. In a prospective evaluation of 18,820 hospitalized patients, 1,225 were admitted because of adverse drug reactions.

Pharmaceutical drugs cause 350,000 drug-related deaths per year just from the side effects, the 3rd leading cause of death, equivalent to 3 jumbo jets crashing DAILY.

Mangosteen juice has been shown in scientific studies to be a powerful NATURAL Anti-Inflammatory (a NATURAL COX-2 INHIBITOR), WITHOUT any side effects.

Mangosteen juice is one of the only NATURAL COX-2 inhibitors on the market.

SAFETY: A toxicity study was done on rats using the original Mangosteen juice (equivalent of 5 bottles per day). The outcome: healthy rats.

Adverse Reactions to Aspirin

Low-dose aspirin was identified as one of the most common causes of adverse drug reactions, with 18% of the hospitalizations and 61% of the fatalities associated with aspirin. In the Woman's Health initiative, even a 100-mg aspirin on alternate days was associated with increased risk of GI bleeding compared to placebo.

Why take a supplement "if you feel healthy" or if your other symptoms don't go away?

There are 4 stages of disease:

Phase 1 - disease is present but can't be diagnosed (heart disease has been seen as young as age 3)

Phase 2 - physiological abnormalities can be diagnosed if looked for, but NO symptoms exist.

Phase 3 - symptoms finally occur. This is when most people finally seek medical attention.

Phase 4 - the disease progresses and may be fatal.

Are you starting to see that as diseases develop, the symptoms may be nonexistent or SILENT for many years?

Mangosteen juice provides a golden opportunity for you to intervene and potentially prevent or even reverse the disease from progressing.

What Is Free-Radical Damage, Chronic Inflammation and How Are They Related?

Free-radical damage and chronic inflammation interact together in a vicious cycle leading to many diseases. Free radicals are unstable molecules which steal an electron from other normal healthy cells to attempt to become normal. Free radicals attack healthy cells throughout the body (silent process) all day and all night long, damaging organs, other cells and even the DNA.

Xanthones SLOW DOWN the free-radical destruction of our body's 10 trillion cells with NO known side effects.

Inflammation is the key component of the immune system's defenses. We can't live with it or without it. Persistent repeated assaults on our immune system, like eating unhealthy foods, smoking cigarettes,

excess cholesterol, STRESS etc., produces chronic inflammation that smolders like a low flame on the back of the stove until the pot burns. Let's look at a couple of major causes of disease and death.

1. Reduction Of Cancer Using Anti-Inflammatories:

There is a direct connection between certain cancers and inflammation. By keeping inflammation down, women can decrease their risk of breast cancer.

In the Woman's Health Initiative¹, 72,242 women (ages 50 - 79) took anti-inflammatories only twice a week, reducing their risk of breast cancer 21-28% over a 5 to 9 year period. (Low-dose Aspirin & Tylenol gave NO protection.) Taking anti-inflammatories more than twice / week led to potential side effects.

If taking an anti-inflammatory **twice per week** could reduce women's risk of breast cancer, what could possibly happen

if women took a natural anti-inflammatory twice a day, not twice a week?

Lisa Coussens, a cancer biologist at UCSF, notes that people with chronic Inflammatory Bowel Diseases have a tremendously increased risk of colon cancer. Other inflammation also associated with cancer, includes cigarette smoke in the lungs, persistent infections like Hepatitis C in the liver, and chronic heartburn from reflux esophagitis.

2. Relationship Of Inflammation To Heart Disease & Strokes:

In the U.S. each year, there are 700,000 NEW heart attacks, 500,000 recurrent attacks, and 175,000 silent first heart attacks and strokes. **Half the people with heart attacks have NORMAL cholesterol levels.**

Inflammation is the cornerstone behind heart disease and strokes. A few years ago, most regarded heart disease as an accumulation of cholesterol deposits on the walls of the coronary arteries. We now know that these cholesterol deposits trigger free-radical damage, leading to chronic inflammation at the site of these arterial blockages.

As the chronic inflammation builds, these plaques push the walls of the artery outward, and eventually these plaques become unstable and can rupture, leading to a clot, producing a heart attack (in the heart) or a stroke (in the brain), which can lead to sudden death.

Many of the "plaques" that clog arteries are actually quite small and inflammation causes them to burst, triggering massive clots that cut off the blood supply to the arteries of the heart.

Half the people with heart attacks have NORMAL cholesterol levels. According to many researchers chronic inflammation may be a bigger risk of heart attack or stroke than smoking or high cholesterol.