Mangosteen

By Steven H. Horne

Mangosteen is a tropical fruit, found in Northern Australia, Brazil, Burma, Central America, Hawaii, Southern India, Indonesia, Malaysia, Sri Lanka, Thailand, Vietnam, and other tropical countries. Also known as the “Queen of fruits,” mangosteen is considered a delicious food in Asia and other parts of the world, but has never caught on in North America, although they are canned, frozen and dried for food elsewhere.

The scientific name *Garcinia mangostana* makes it a relative of *Garcinia cambogia*, which is found in NSP’s Garcinia Combination, as well as Nutri-Burn and Collatrim Plus. Mangosteen belongs to the family Guttiferae, which is the same botanical family as St. John's Wort. Although, of course, it has very different properties from these other remedies.

The rind of the mangosteen fruit (or pericarp) is used medicinally. It is dried and shipped to China and where it is used in topical preparations for eczema and other skin conditions. A decoction of the rind is used internally in Chinese medicine as an astringent to stop diarrhea and to treat cystitis. In the Philippines, the leaves and bark are also used as a fever reducing medicine and for thrush, diarrhea and urinary disorders.

Like aloe vera, noni and other popular herbs that have been introduced into the Western materia medica by network marketing, it is sometimes difficult to separate fact from fiction when it comes to understanding the health benefits of mangosteen. After all, just about anything that has antioxidant and anti-inflammatory properties, like aloe vera, noni or mangosteen, is going to have some fairly broad-acting health benefits. That's because of the role that inflammation and oxidative stress plays in disease in general.

There are about 200 xanthone compounds that have been found in nature and they appear to be some very potent antioxidants. The mangosteen pericarp contains a polyhydroxy-xanthone derivative termed mangostin. It also contains another xanthone called beta-mangostin. The fully ripe fruits contain the xanthones: gartanin, 8-desoxygartanin and normangostin.

I understand, although I haven't verified the data myself, that there are over 1000 scientific papers have been published on the structures, bioactivities, and pharmacological benefits of xanthones. Various xanthones have been reported to have antioxidant and anti-inflammatory effects, but other properties xanthones may include the ability to boost energy, reduce pain, stimulate immune responses, help the body fight fungal and bacterial infections, cardiac protective benefits, blood sugar and blood fat reducing effects, weight loss and blood pressure reducing effects. Xanthones may also be anti-depressant, anti-anxiety and anti-allergic. Their antioxidant properties also make them promising for slowing the aging process, helping to prevent dementia, Alzheimer's disease and gum disease.

Which of these effects specifically apply to the xanthones found in the mangosteen fruit and rind are not fully known. The fact is, however, that everything mentioned in the previous paragraph can be summed up by saying the fruit is antioxidant and anti-inflammatory, since oxidative stress and inflammation are at the root of all the other conditions and health problems previously mentioned.

NSP’s Thai-Go contains mangosteen fruit and pericarp, and the paricarp is found in their new formula IF Relief. I like both of these products. I certainly feel better taking Thai-Go in the mornings, and it often gives me an energy boost when I’m traveling (particularly when combined with Liquid Chlorophyll). Also, after some recent dental work, I used 2 capsules of a pre-sample of IF Relief every 2-3 hours to successfully ease the pain. As a result, I didn't have to resort to any drugs for pain.

It's obvious that mangosteen has health benefits, but I always dislike the hype that surrounds the latest “wonder plant,” be it hoodia, or noni or mangosteen. After all, nature has provided us with literally tens of thousands of valuable remedies. It is only commercial “hype” that causes us to single out a few as “cure-alls” and ignore the rest. Besides, just saying mangosteen is anti-inflammatory and antioxidant, is saying a lot, especially when you understand the role inflammation plays in the development of chronic and degenerative disease in general.

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Our theme for March is inflammation. There's been a lot of information, including at least five or six books, released in the past couple of years talking about the relationship between inflammation and chronic disease. We now know that inflammation is at the root of heart disease and cancer, as well as autoimmune disorders, asthma, allergies, arthritis, and deteriorating mental ability in aging.

It may be big news for some, but it isn't for me. The idea that inflammation is at the root of all disease was something I learned it in 1983, when I went to work for Dr. C. Samuel West at the International Academy of Lymphology. During the 10 months that I worked with Dr. West, he convinced me that inflammation was the first stage of the disease process, although he didn't call it inflammation.

**Dr. West and the “Gospel” of Lymphology**

Dr. West was an interesting character. If any of you are familiar with Bach Flower essences, Dr. West was the perfect example of a Blue Vervain person, fanatically devoted to a cause to the point of being intrusive with other people. In fact, he was really an evangelical minister, except that instead of preaching the gospel, he was devoted to spreading the "good news" about lymphology.

By the way, I’m not exaggerating about how Dr. West promoted his message. Carl Robinson and I accompanied him to the Bay Area for some meetings one time, and at one of the meetings he actually had a couple of people in the back of the room saying “Amen Brother” and “Praise the Lord!” When we went to church he actually stood up to bear testimony about the “trapped blood protein” research being the answer to ending mankind’s suffering. Carl and I were trying to sink under the pew, like “we don’t know this guy.”

According to Dr. West, trapped blood proteins were the cause of all disease and his book, *The Golden Seven Plus One* (which has numbered chapters and paragraphs because he actually considered it to be a form of scripture) was devoted to the idea of eliminating all disease and bringing peace to the world. Technically speaking, Dr. West was talking about trapped plasma proteins, but he felt the word plasma was too technical for lay people to understand.

From Dr. West, I learned about cutting edge research on the lymphatic system. I learned how the lymphatic system was necessary to maintain a healthy "negative sub-atmospheric pressure condition" between the cells. He called it the “dry state,” again because he avoided anything that sounded technical. This healthy state of the cells involves just enough fluid around the cells to fill the spaces between the cells without creating any fluid pressure. The pressure is maintained inside the blood stream (rather than around the cells) by means of the plasma (or blood) proteins—albumin, globulin and fibrinogen. They create something called osmotic pressure.

Almost ten years later, I had an artist create the following illustration which I’ve been using ever since to illustrate the “happy” cells in the dry state. The illustration shows how the water molecules “stick” to the plasma proteins, which hold them in the circulatory system.

Dr. West used Guyton’s *Textbook of Medical Physiology* as a reference, and gave us all a copy. In studying Guyton, I noted that he says that inflammation starts with a movement of fluid and protein into the tissue spaces, followed by a “clotting” of fluids in the tissue spaces. This, of course, leads to swelling, one of the four classic signs of inflammation.

When I read this, I realized that Dr. West’s “trapped blood proteins” were really the beginning stages of inflammation, and I asked him why he didn’t call it inflammation. You guessed it!
Inflammation 101

The first thing I learned from Dr. West was that inflammation is the body’s initial response to all tissue damage. In other words, any time you damage a cell in any way, an inflammatory process is initiated.

There are two basic types of tissue damage:

- Mechanical damage
- Chemical damage

Mechanical damage comes from trauma or injury. Tissues get burned, cut, smashed or broken. Chemical damage comes from toxins and toxins derive from three main sources. First, there are poisons which can be introduced into the body. These could be plant toxins (poison ivy, death cap mushrooms, etc.) or animal venoms (bee stings, spider bites, etc.) or chemicals (heavy metals, gasoline, solvents, etc.). Second, there are metabolic toxins (waste products of our own metabolism. And third, there are metabolic toxins released by microorganisms and parasites (such as yeast, bacteria, intestinal worms, etc.).

However, no matter what the source of the toxin is, the response of the body is always the same. So, while the body can be traumatized and injured in many different ways, the manner in which the body responds is consistent. This is what makes the simple techniques of natural healing so effective.

I learned a lot of great stuff from Dr. West. I learned how to reverse minor injuries and relieve pain using lymph-moving techniques like pressure, massage, the light-fast-stroke, the energy ball and deep breathing. It also helped me develop an understanding of how many herbs work to heal injuries and relieve pain.

Over the years, I’ve watched as mainstream medicine has “announced” its discovery that inflammation is involved in this or that disease. Now, it’s fairly well established that inflammation is at the root of many chronic and degenerative diseases. Dr. West’s assertion that “trapped blood proteins” are involved in the “process of disease and death at the cellular level” is gradually being vindicated and I hope someday he’ll get the recognition he deserves for his discoveries.

However, in all this mainstream “hoopla” about inflammation and disease, there are some very simple “keys” I learned from Dr. West that are missing from every book and article I’ve looked at on inflammation. So, I want to provide my own perspective on the subject of inflammation, which is based on the foundation of practical understanding that dear Dr. West provided me; bless his beautiful “blue vervain” soul.
When cells are damaged, their membranes rupture. This allows chemicals which were inside the cell to be released into the surrounding fluids. Among these chemicals are histamine, bradykinin and serotonin. These chemicals initiate the inflammatory process, by dilating the pores in the nearby blood capillaries. This allows the plasma proteins (albumin, globulin and fibrinogen) to move out of the blood stream and into the tissue spaces in large quantities. Since these proteins hold onto water in the blood stream (maintaining osmotic pressure), they carry this water with them into the tissue spaces. This causes the first characteristic of inflammation: swelling or localized edema.

This slows down the microcirculation at the site of injury. Normally, the fluid between the cells is moving very rapidly (changing 80 times per second according to Dr. Guyton). Now, the fluid pools around the cells creating a localized stagnation. This is a protective mechanism of the body. If the damage is due to some toxin, this slows the movement of the toxin so it can't spread rapidly through the body. If the protective layers of skin or membranes have been damaged, it also prevents microbes that may have entered through these breaches from moving rapidly through the system.

However, in spite of the protective nature of this pooling of fluid, it also creates two negative effects. One is the oxygen and nutrient supply to the cells is diminished. The other is that wastes are not removed efficiently. Thus, cells suffer oxygen and nutrient deprivation and the localized environment becomes increasingly toxic, the longer the fluid remains in place.

Dr. West believed that the other classic symptoms of inflammation—pain, heat and redness—were all caused by this accumulation of fluid. He believed that the lack of oxygen caused the pain and that the heat and redness were caused by a shutting down of the sodium potassium pump which creates electrical energy for the cell. He felt the electrical energy was being converted to mechanical energy. I was never convinced his explanation was correct, so I've never taught it.

But, in all fairness to Dr. West, the only chemicals he knew were involved in the inflammatory process were histamine and bradykinin. I have the advantage of 20 more years of research to aid my understanding.

More recently, I've been learning about the chemical messengers cells use to “talk” to each other. These chemicals are a very basic type of hormones—autocrine hormones—and are collectively known as eicosonoids. They include prostaglandins, leukotrienes, cytokines, lipoxins and resolvins. Right now there's a lot of research being done on these chemical messengers and their role in inflammation. These messengers help create the other classic symptoms of inflammation.

Forgive my cynicism, but I believe that the reason the researchers are focused on these chemical messengers is because they are trying to develop new designer drugs to manipulate them. The COX-2 inhibitors (viox and celebrex) were drugs developed from studying how to manipulate these chemical messengers to relieve pain. My attitude is that we're overlooking some very obvious and simple answers here because they're too easy and they don't lead to patented chemicals that can make pharmaceutical companies rich.

But, in order to understand what some of those obvious and simple answers are, we need to first delve a little deeper into our understanding of what is happening. So far, the book that has been the most helpful in developing my understanding of the chemicals mediating the inflammatory process has been The Anti-Inflammation Zone by Barry Sears. He talks about four phases of inflammation. So, what I'm going to explain is each of these phases of inflammation, what is happening, and how we help the body in each phase.

**Initial Phase of Inflammation**

We've already introduced the first stage of inflammation by explaining that tissue damage causes cell membranes to rupture. This results in the release of histamine, which is followed by a release of bradykinin, serotonin and other chemical messengers. These messenger chemicals dilate the capillary pores allowing fluid and protein to rush into the damaged tissues creating swelling, which initiates the inflammatory process.

At this stage, inflammation is actually quite easy to reverse. If one can keep the fluid moving out of the tissues and into the lymphatic system, then the cells never suffer oxygen and nutrient deprivation or a localized build up of toxins. This allows repair to take place very rapidly. All one has to do is keep the lymphatics moving, which can be done by applying pressure to the injury, lightly rubbing or massaging the injured area or even applying energy to the area of injury.

This technique works extremely well for smashed fingers, bumps, abrasions, burns and other minor injuries. I can't begin to count the number of times I've been able to take the pain out of minor injuries like these (either on myself or others). The process generally takes 5-20 minutes. (One of the things I learned from Dr. West and have subsequently verified to be
true is that the maximum time it takes to reverse these minor injuries is 20 minutes.) As long as you keep the fluid from building up in the tissues, the pain will go away and the damage will be reversed within that period of time.

Of course, you can’t use these techniques for chemical injuries like a bee sting or spider bite. That’s because keeping the lymph moving would spread the toxin more rapidly through the system, something we don’t want to do. So, you have to do something that will neutralize the toxin first, like applying an herbal poultice.

**Second Phase of Inflammation**

In the second phase of inflammation, eicosonoids (leukotrienes) are released to further dilate the blood vessels. This allows white blood cells to exit the blood stream and enter the damaged area. The white blood cells can get rid of toxins and debris from damaged cells. This also causes further swelling.

Histamine and leukotrienes also cause bronchial constriction and increase the production of mucus on mucous membranes. This helps flush irritants from the respiratory tissues (which is what happens in a cold). There are also eicosonoids that sensitize pain receptors in the nerves, to increase pain signals to the brain.

One point that I learned from Dr. West that seems to be missing from the literature on inflammation (so I can’t substantiate it from the research, only from personal experience) is the issue of the proteins clotting in the tissue spaces. I believe this happens during the second phase of inflammation, and here’s my take on it:

It appears that active cells produce tiny electrical fields and that these fields keep the proteins in suspension so they don’t clump together. With the fluid accumulation in the tissue spaces causing reduced oxygen and nutrient supply, the electrical fields diminish, and this is what causes the proteins to clump together or clot. Once they clump together, they won’t move into the lymphatics and the fluid remains stuck in the tissues. I believe that this problem creates the second phase of disease, the subacute or stagnant phase, where a chronic congestion develops in the localized tissue and lymphatics.

The reason I know that there is an electrical connection between the proteins and the fluids is because of my experiences in noting how electromagnetic fields affect injured tissues. The application of energy alone (either in the form of “hands on” healing, electrical stimulation from actual electrical devices or magnets, or high energy remedies such as essential oils) consistently breaks up this localized stagnation and moves the stuck fluid and protein into the lymphatic system to be drained away.

The fact that I’ve seen applications of energy alone take down the localized edema is enough to convince me that this second phase of inflammation is characterized by a loss of energy production in the cells and a further stagnating of fluids. However, as I’ve already stated, none of the literature I’ve read on inflammation talks about this.

**Third Phase of Inflammation**

In the third phase of inflammation, more eicosonoids (cytokines) signal white blood cells (macrophages and neutrophils) to enter the area for further clean-up. These cells use oxygen radicals to destroy microbes and cellular debris. This is where the oxidative stress of inflammation comes in. Healthy cells have antioxidants to protect themselves from oxidative stress. If the cells are deficient in antioxidants, then the oxidative process taking place at the site of inflammation can damage more cells.

It’s like a forest fire which starts because there’s a lot of dead, dry wood in the forest. When the fire gets going, and it’s hot enough, even green trees will burn. Antioxidants make cells that are like well-watered trees. They’re hard to burn. This contains the inflammation and keeps it from spreading.

**The Fourth Phase of Inflammation**

This is the final or healing phase in the normal inflammatory process. The cleaning crews (white blood cells) have been busy “burning up” debris and clearing the area. Now, cortisol from the adrenal glands is secreted. This shuts down the production of eicosonoids and halts the inflammatory process. It’s like hose down the entire area to put out the fire and prepare for reconstruction. Macrophages clean up the remaining debris, while a new group of eicosonoids (lipoxins and resolvins) signal cells that it’s time to begin the process of rebuilding.

There are several obvious things that inhibit the healing phase. One is exhausted adrenals. This is something I see in autoimmune disorders. I’ve never seen anyone with an autoimmune disorder who doesn’t have exhausted adrenals. I’ve also never seen anyone who has an autoimmune disorder who wasn’t low in antioxidants. Therefore, my personal theory about autoimmune disorders is that they aren’t caused by the immune system turning on the body. I think they are caused by some kind of toxicity which has created a chronic inflammation in part of the body. Like the forest fire, the inflammatory process is running out of control because the adrenals aren’t strong enough to produce enough cortisol to keep the fire in check, and healthy cells are being damaged by the lack of antioxidants.

Another reason why the healing phase isn’t initiating in chronic inflammation is because it takes omega-3 essential fatty acids to create the eicosonoids needed to signal the repair and
rebuilding phase. Because just about everyone in our society is getting too many omega-6 essential fatty acids and not enough omega-3 essential fatty acids, the body is unable to initiate the healing phase. High levels of insulin also interfere with the production of the eicosanoids that keep inflammation in check and promote healing, so our high carb diets are also contributing to the problem.

Stages of Disease

Although I didn’t learn this from Dr. West, I believe that when acute inflammation doesn’t heal properly, then it becomes subacute or chronic inflammation. As I mentioned earlier, this subacute phase of the disease process is characterized by clotted protein in the tissue spaces which isn’t moving due to diminished energy production. If this situation continues, then tissue function becomes permanently depressed and chronic disease results.

Also, although it’s obvious that infection can be involved in the inflammatory process, I firmly believe that most infections are actually a secondary effect and not the actual cause of the inflammation. Healthy skin and membranes resist infection, but once they have become damaged and inflammation has set in, the stagnation of fluid in the tissue spaces creates a breeding ground for microbes. My reasoning here is that most harmful microbes operate on an anaerobic metabolism, that is, they derive energy from the process of fermentation. Our cells are aerobic, which means they utilize oxygen to burn carbohydrates for fuel. The reduced oxygen supply to stagnant, inflamed tissues creates an anaerobic environment that encourages the growth of these microbes.

Also, it has long been known that cancer cells are also anaerobic. So, the low oxygen environment in stagnant tissues (coupled with the free radical damage associated with inflammation), causes some cells to revert to the anaerobic metabolism they operated under in the embryonic state, and they start growing at the same rate. Thus, cancer is born.

Obviously, if tissue remains in a stagnant, depressed state for a long enough period of time it will start to break down and decay and degenerative disease sets in. Organs and tissue deteriorate and that also creates an environment for more anaerobic activity (chronic infection and/or cancer).

So, because of what I learned from Dr. West, I have come to believe that the disease process is essentially the same in all diseases. It all starts with some kind of damage which sets up acute inflammation. If the body has the support it needs, the acute inflammation heals and that is the end of the problem. However, if the body doesn’t have the help it needs to heal, then the inflammation becomes low grade and chronic. I call this the subacute and chronic stages of disease, which are characterized by localized lymphatic stagnation and depressed tissue function. If this chronic inflammation remains unchecked, degeneration sets in, which is the fourth stage of the disease process.

Thus, all disease is really one disease. What differentiates the many different types of diseases the body is prone to are three factors: 1) the source of the tissue damage, 2) the site of the tissue damage and 3) the stage of the body’s response to that damage (acute, subacute, chronic or degenerative). Some people may think this model is over simplistic, and it very well may be, but it serves me well as a natural healer and seems to work in practical application (which is all I really care about).

We’re Ahead of the Game

While science is busy studying all the little chemical messengers and trying to develop “designer drugs” to enhance or inhibit them, we’re already there. The fact is, that these chemical messengers cause changes to take place in healthy tissue. These changes are observable (swelling, redness, bruising, etc.), so we can see what these eicosanoids are doing to alter the tissue.

We also have hundreds, and in some cases thousands, of years of people noting that certain herbs produced observable changes in various tissue states in the body. This means that the herbs have to be enhancing or inhibiting various eicosanoids to create these changes. We don’t have to wait for science to figure out which chemicals affect which messenger chemicals. We only have to do what herbalists have been doing for thousands of years, observe the condition of the tissue (what stage of the disease process it is in) and apply the appropriate remedies.

It’s really the core of everything I’m doing. So, if you want to learn more about inflammation and it’s relationship to chronic and degenerative diseases, you can check out any of the following: This month’s Sunshine Sharing “Is There an Arsonist in Your Body?” Our Herbal Hour video, “Inflammation: The Match That Light’s All Disease.” The Dr. Mom-Dr. Dad course, which explains the process of inflammation in detail and gives practical information about relieving pain, reversing injuries, and healing both acute and chronic disease. And finally, insights into the various tissue states caused by the stages of inflammation are found in the ABC+D Approach course.

And, if you want to hear the next generation of Dr. West’s message, his son Karl West is carrying on his father’s legacy. You can check it out at www.ial.org. (They still have the Certified Lymphology course I put together for them over 20 years ago. And, truth is, I’m still somewhat ‘infected’ by Dr. West’s passion, which was to help end the suffering caused by degenerative disease, and to bring peace to the world. So, maybe there’s a little touch of that blue vervain personality in me, too.)
Kimberly Balas’ Clinician’s Corner

Rosacea, MCD Disease, Bursitis and Brown Recluse Spider Bite

Rosacea

Do you have an essential oil blend for rosacea. I have a customer asking about this and it isn’t my forte’.

Kasara

I use a red raspberry mask by making a paste with water and red raspberry leaves (empty the capsules). I add a drop of rose oil to this and use it topically. It tones down the redness.

MCD Disease

I have a client with MCD, Minimal Change Disease, which is a scarring of the nephrons. The Bowman’s capsule (the expanded beginning of a nephron also known as the glomerular capsule) is decreased in its function. Medical treatment was prednisone, which did help first time around. Since he has gone off the prednisone, he is now experiencing increased protein in urine again. The doctor is thinking of either using prednisone again or cyclosporine, low doses for life.

I’m looking for ideas on what might help here.

I have some lab tests from this client. The results are as follows. Protein, Urine was 759 mg/dl, Creatinine, Random Urine was 156.0 mg/dl and the Protein/Creatinine Ratio, Urine was 4.87. The doctor wants the Protein/Creatinine Ratio to be less than or equal to 0.3.

He is experiencing some swelling in his extremities, and also his blood pressure is starting to go up some. He used to drink 6-8 cans of Diet Mt. Dew, but no longer drinks any. Muscle testing he needs potassium, stinging nettles, VS-C, Homeopathic Detox and Heavy Metal Detox. He is a horse farrier and also tests for lots of parasites.

The underlying cause here is chronic inflammation. Prednisone is a synthetic mimic of cortisol, the adrenal hormone that reduces inflammation. I would look at boswellia for this. It is one of the ingredients in the new IF Relief formula from Nature’s Sunshine. I would also use large amounts of Thai Go, plus the Spleen Activator.

Bursitis

What would you recommend for bursitis?

Bursitis is inflammation of the bursa, the closed sac which houses the synovial fluid that lubricates areas of the body where there is friction. I would use the Bone/Skin Poultice internally along with the Collatrim and B6. This helps heal the bursa. For the inflammation, you can add yucca.

Brown Recluse Spider Bite

I have a client that had a brown recluse spider bite him a while ago and the pain came back in his leg and is getting pretty bad. The doctor wants to put him on prednisone but he doesn’t want to go there. Do you have any suggestions?

John

I would take yucca internally (as a natural cortisone for inflammation) and apply the following spider bite poultice (from my Blood Type Approach course manual).

2 Activated Charcoal capsules
4 Burdock capsules
3 drops Lavender oil
2 drops Helichrysum oil
Pinch of Epsom Salt

Mix with a small amount of Black Ointment and Aloe Vera juice to make a paste. Apply to bite and change frequently. These bites can be very nasty and take a long time to heal.

Kimberly Balas is a board certified naturopath and co-owner of Vital Solutions. She is an instructor for Tree of Light and is head of the research department. She is available for personal consultations. To schedule a consult call Balanced Health Solutions at 321-626-9243.