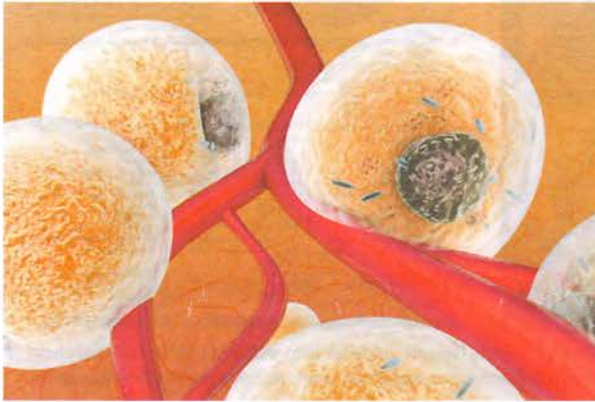


# The Holistic Truth

February 2017 Volume 2 Issue 11

## Inflammation & Body Fat: What's the Connection?



Above: Fat cells in human tissue and between blood vessels and capillaries.

Fat cells create chemical signals that cause inflammation, especially when the person is eating a high-calorie or high-sugar diet. Not only are the extra calories stored as fat, but the role of fat becomes more than just storage of extra calories: fat cells start to manufacture inflammatory mediators. As more weight gain occurs, more inflammation is triggered. To illustrate, according to research studies, as people's weight increases, so do levels of the inflammatory marker CRP. Even in children, obesity is accompanied by metabolic changes including elevated inflammatory markers and high cholesterol! The good news is that as people lose weight and BMI (body mass index) decreases, markers of inflammation also can decrease.

Inflammation is an internal process that occurs in response to injury or physical trauma. The initiating insult may be physical, chemical or biological. Sometimes inflammation can occur acutely, but it may also evolve into a chronic problem.

The word "inflammation" comes from the Latin *inflammare*, meaning "to set on fire." The cardinal signs of inflammation are redness, heat, swelling, and pain. These signs may be seen at certain times, but not necessarily always present or all together. In best case scenario, acute inflammation leads to repair & healing. It is when the inflammatory response is abnormal, exaggerated, or prolonged that problems can occur.

Acute inflammation is characterized by joint pain & stiffness; redness; swollen joints that are painful to the touch; loss of function; and possible flu-like symptoms such as fever, chills, decreased appetite, and fatigue. Inflammatory substances produced by the body may irritate the joints and wear down the cartilage

Inflammation can also affect internal organs, especially in autoimmune diseases which lead to a state of chronic inflammation. Depending on the affected location, inflammation can contribute to high blood pressure, asthma attacks, diarrhea, cardiovascular disease and more. Inflammation plays a role in the development and progression of coronary artery disease, a type of cardiovascular disease. When inflammation occurs in the coronary arteries, it can trigger a series of events that can lead to heart attack and stroke.

Type 2 diabetes, obesity, and insulin resistance are closely intertwined with inflammation. Research shows that people with metabolic syndrome have higher blood levels of the inflammatory marker C-reactive protein (CRP). Metabolic syndrome is a constellation of risk factors that increase one's risk of heart disease, stroke, and diabetes. The signs and symptoms of metabolic syndrome include high blood pressure, elevated blood sugar or insulin resistance, increased triglycerides, decreased levels of HDL ("good cholesterol"),





and excess fat around the waist.

Nutritional Frontiers offers several supplements to use in conjunction with lifestyle changes in the effort to reduce inflammation and promote healthy and sustained weight loss.

## Inflam II

was designed to reduce inflammation along with pain and swelling that can accompany conditions like arthritis. This comprehensive product includes several potent herbs and nutrients.

CurcuWIN™ is a novel curcumin derivative in Inflam II that demonstrates improved bioavailability compared to other curcumin preparations. Turmeric, from which curcumin is derived, has potent anti-inflammatory actions, in particular inhibiting formation of the pro-inflammatory mediators thromboxane and prostaglandin. Unlike conventional pharmaceutical anti-inflammatory medications like NSAIDs, turmeric does not damage the stomach lining.

Inflam II also contains Holy basil (*Osimum sanctum*), a popular Ayurvedic herb. Holy basil is known as an antioxidant and adaptogen to increase the body's resistance to stress. Traditionally it has been used for cardiovascular disease, respiratory disorders, and high blood sugar. Ginger (*Zingiber off.*) possesses digestive, pain-killing, and anti-inflammatory effects. Green tea (*Camellia sinensis*) contains EGCG and other flavonoids & polyphenols which reduce inflammation and free radical damage. Inflam II also contains the important Ayurvedic herb *Boswellia serrata* which has the reputation of improving multiple inflammatory diseases like arthritis, asthma, and colitis. The proteolytic enzyme bromelain, derived from pineapple, is included in Inflam II for its ability to reduce inflammation by inhibiting prostaglandin synthesis. Baical skullcap (*Scutellaria baicalensis*) is a Chinese and Russian traditional herb used extensively to reduce inflammation without the negative side effects characteristic of prescription medications.

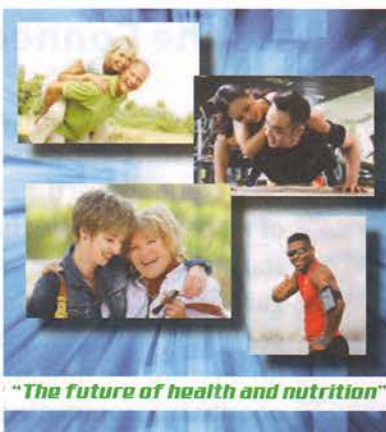


## X-Flame

is another excellent formula by Nutritional Frontiers that targets inflammation safely and effectively. X-Flame includes patented ingredients to reduce inflammation and modulate immune function. Select ingredients in X-Flame have been researched for their ability to reduce pain and swelling, increase mobility, and decrease the need for over-the-counter pain medication. X-Flame incorporates Kre-Celazine®, DMG HCl, turmeric, *Boswellia serrata*, ginger root, quercetin, rutin, luteolin, and cayenne. Kre-Celazine® is a patented nutraceutical containing fatty acids and creatine to modulate the inflammatory response. For example, a case study and double-blind placebo controlled trial showed its ability to reduce inflammation, pain, swelling, and stiffness in youths with juvenile rheumatoid arthritis. DMG (Dimethylglycine Hydrochloride) modulates cytokine production, acting as an anti-oxidant as well as anti-inflammatory agent.\* DMG is also said to enhance athletic performance by improving oxygen utilization\* and may help modulate immune and inflammatory responses in rheumatoid arthritis. Cayenne pepper is traditionally added to herbal formulas



## Breaking Through Lifestyle Boundaries



**Above Left:** Nutritional Frontiers offers a complete lifestyle guide for help with multiple nutritional challenges. **Above Right:** A full Diet to reduce inflammation and some recipe suggestions can be found in this Nutritional Frontiers guide booklet.



## Diet to Reduce Inflammation

People benefit from doing a detox/cleansing food program in order to uncover hidden food sensitivities which are contributing factors for:

- Inflammation
- Autoimmune Conditions
- Most chronic diseases

Common foods that create inflammation include:

- Dairy
- Fast Foods
- Sugar
- Animal Products

Follow these guidelines strictly until symptoms are reduced. You can also refer to the Recipe Handout for further ideas.

Your daily diet should consist of small meals more frequently. 3 Meals should be consumed by 3pm and 5 meals consumed by 5pm.

**Wild Fish**  
Free of PCB's, Mercury, and other toxic metals.  
• Prepare fish by steaming, baking, broiling, or poaching. Not fried!

Can be consumed daily	Can be consumed once weekly	Can be consumed once monthly
<ul style="list-style-type: none"> <li>• Anchovies, Calamari</li> <li>• Catfish, Clam</li> <li>• Cod (Atlantic)</li> <li>• Crab (Domestic)</li> <li>• Caviar's, Capelin</li> <li>• Flounder*, Mullet's, Sole's</li> <li>• Hake, Herring</li> <li>• Macarel (Atlantic, Chub)</li> <li>• Mullet, Oyster</li> <li>• Perch (Atlantic), Plaice, Pollack, Sardine, Scallops, Sole, Flapjack, Trout (Freshwater)</li> <li>• Salmon</li> <li>• Whitefish, Whiting</li> <li>• Tongue Tuna</li> <li>• Overfished</li> </ul>	<ul style="list-style-type: none"> <li>• Bass</li> <li>• Carp</li> <li>• Cod (Alaskan)</li> <li>• Croaker (White Pacific)</li> <li>• Halibut</li> <li>• Lobster</li> <li>• Mahi Mahi</li> <li>• Monkfish</li> <li>• Perch (Freshwater)</li> <li>• Steelhead, Skates, Snappers</li> <li>• Tuna (Canned Chunk, Light, Skipjack)</li> <li>• Sea Trout</li> <li>• Overfished</li> </ul>	<ul style="list-style-type: none"> <li>• Bluefish</li> <li>• Chilean Sea Bass</li> <li>• Grouper</li> <li>• Macarel (King, Spanish, Gulf)</li> <li>• Marlin</li> <li>• Orange Roughy</li> <li>• Shark</li> <li>• Swordfish</li> <li>• Tilapia</li> <li>• Tuna (Ahi), Yellowfin, Bigeye, Canned Albacore</li> <li>• Overfished</li> </ul>



to enhance the actions of other herbs, acting as a synergist. Cayenne improves circulation and may be helpful for reducing the pain of arthritis, diabetic neuropathy, post-herpetic neuralgia, psoriasis, postsurgical pain, and fibromyalgia.\*Quercetin, rutin, and luteolin (from Perilla leaf extract) are in the dietary flavonoid family. Flavonoid intake may reduce risk of cancer, neurodegenerative disease, and cognitive decline associated with aging. Bioflavonoids are also used for hepatitis, chronic venous insufficiency, gingivitis, and bruising.



## Omega 3D II

is a high potency essential fatty acid supplement with added vitamin D. Only two softgels of Omega 3D II provide 2.6 grams of omega 3 fatty acids along with 1000 IU of vitamin D! Omega 3D II is derived from refined and purified fish oil and calamari oil. Nutritional Frontiers omega 3 products undergo rigorous, independent, 3rd party testing to guarantee purity, and our products exceed industry quality standards for reduction of oxidation, PCBs, and dioxins (environmental toxins). Essential fatty acids are anti-inflammatory, promoting the release of anti-inflammatory compounds from cells. Omega 3 fatty acids in fish oil can help reduce the symptoms of arthritis including reducing joint pain, morning stiffness, and NSAID medication use. EFAs also lower high blood pressure, reduce the risk of cardiovascular disease, reduce cholesterol and triglycerides, improve insulin sensitivity, protect against neuropathy, and maintain healthier cell walls which promote insulin receptor health.

## Tona Lean

supports weight management and healthy cortisol function. It contains Tonalin® CLA, which is a patented form of CLA (Conjugated Linoleic Acid) derived from safflower oil proven to be effective in reducing fat and increasing lean muscle mass. Tonalin® helps the body metabolize existing fat deposits which can then be used as an energy source by muscles and the liver. Tona Lean is also useful for maintaining blood sugar and cholesterol levels.



## BerryTone II

was designed to support metabolism, reduce hunger, and assist with weight loss. This supplement contains Irvingia gabonensis, a West African fruit traditionally used for pain relief, weight problems, and to reduce high cholesterol. Preliminary studies suggest it may help lower glucose and cholesterol, promote weight loss, suppress the appetite, and increase the metabolic rate. BerryTone II also contains green tea extract and green coffee bean extract. These compounds may help reduce body fat and weight gain. Raspberry ketones are included for their purported benefits in inducing adiponectin, a hormone that modulates metabolism, glucose regulation, and fatty acid catabolism. Raspberry ketones may even help protect against fatty liver, according to an animal study.

## Super Shake

provides a low carbohydrate meal replacement option that is free from the most common food allergens (gluten, dairy, and soy). Super Shake features pea, rice, and pumpkin as its protein sources, providing a delicious alternative for people on weight loss programs, detoxification diets, low carbohydrate diets, 'diabetes' diets, elimination-challenge diets, or simply those looking to add smoothies to their daily routine.

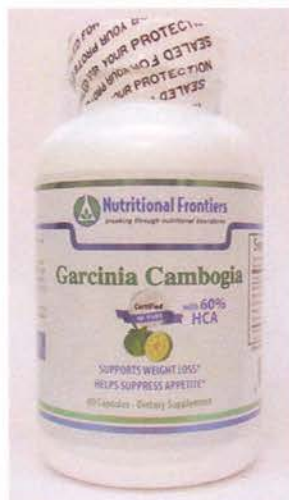
This protein blend provides a variety of amino acids, including 9 of the 10 essential amino acids. Essential amino acids are called "essential" because they must be obtained





through diet; the human body does not synthesize them. Super Shake can be mixed with any non-dairy milk alternative such as almond milk, coconut milk, hemp milk, etc. Or it may be added to a blender with fresh or frozen fruit, milk, ice, nut butter, and/or for extra nutritional value, one of Nutritional Frontiers' Pro Colors powders such as Pro Lean Greens, Pro Oranges, Pro Purples, or Pro Reds.

Additionally, Super Shake features Medium Chain Triglycerides. MCTs are readily absorbed and easily metabolized fatty acids found in foods like coconut oil and palm oil. MCTs may assist in weight loss because they support the body's ability to process extra calories. Super Shake also contains the soluble fiber Fibersol®-2 comprised of a digestion-resistant maltodextrin. Fibersol®-2 is not only well-tolerated but also results in favorable fermentation characteristics in the large bowel, assisting production of the short chain fatty acid butyrate which is the preferred fuel source of colon cells. Fiber serves many purposes such as aiding glucose and lipid control, binding toxins in the intestines to aid in detoxification, and supporting proper bowel function, regularity, fecal volume, and beneficial intestinal micro flora. Medications must be taken separately from high-fiber supplements like Fibersol®-2. Fiber can theoretically interfere with the absorption of medication taken at the same time. We suggest taking medications 2 hours before or after using the Fibersol®-2 in Super Shake.



## Garcinia Cambogia

also known as tamarind, is a small fruit grown in southeast Asia. Several animal studies and in vitro studies have examined garcinia's effects on weight loss, fat loss, and other parameters related to metabolic syndrome. Garcinia contains hydroxycitric acid (HCA), an extract derived from the fruit rind, which appears to be the active component. Nutritional Frontiers Garcinia Cambogia contains 1000mg Garcinia Cambogia extract with 60% HCA, 200mcg of chromium and 50mg of potassium per two capsule serving

*\*These statements have not been evaluated by the FDA. The products referred to are not intended to treat, cure, or prevent any disease.*

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# What's New?

**New Products and Improved Formulas Now Available!**

## Control II:

The ingredients of Control II help those people struggling with sugar and carbohydrate cravings.

### Designed to Support:

- Helps control insulin resistance
- Controls neurotransmitter imbalance
- Controls carb cravings
- May help support sugar, alcohol or other cravings



## Folate 4G:

Folate is in the B vitamin family and it performs many critical functions related to DNA methylation and synthesis, cell division, human growth and development, and nervous system function.

### The 4th generation folate:

- Folate the most absorbable form of folic acid
- (6S)-5-methyltetrahydrofolate glucosamine salt
- Highly soluble
- No metabolism needed
- Stable
- Dosable
- Highly active
- MORE SAFE



## Thyro Complete:

Thyro Complete is a dietary supplement to support healthy thyroid function and physiology

### Supports:

- Growth and Maintenance of Thyroid Glands
- Function and Activity of the Pituitary and Hypothalamus
- Thyroid Hormone Production, Activation and Metabolism



## Immunomax III:

Immunomax III is designed specifically for anyone with a weakened immune system.

### Helps Support:

- Proper immune function
- Reducing the duration and intensity of colds and the flu



## Inflam II:

New and Improved with CurcuWIN™ and BioPerine® researched and trademarked ingredients

### Recommended for:

- Pain
- Swelling
- Inflammation
- Arthritis



## EstroCleanse III:

Unique antioxidant formulation designed to enhance detoxification and promote hormone balance

### Recommended for:

- Hormone Balance
- Healthy Metabolism of Estrogen
- Relief of Oxidative Stress
- Detoxification



## Omega 3D II:

New and Improved with 2600 mg of Highly Concentrated Omega-3

### Recommended for:

- Cardiovascular health
- Hair and skin health
- Support of blood pressure within normal ranges, vascular integrity and cardiovascular health
- Healthy nervous system and organ function
- Joint and bone health and comfort
- Gastrointestinal, respiratory, and immune system health
- Support of hormone balance within normal ranges



## Omega 3 Liquid:

New and Improved with 2800 mg of Omega-3

### Recommended for:

- Cardiovascular health
- Hair and skin health
- Support of blood pressure within normal ranges vascular integrity and cardiovascular health
- Healthy nervous system and organ function
- Joint and bone health and comfort
- Gastrointestinal, respiratory, and immune system health
- Support of hormone balance within normal ranges

