

A breakthrough formula in nutritional supplements, Balanced Naturals™ Anti-Inflammatory Formula is a well rounded product that contains ingredients to aid in the natural regulation of inflammation to support the body's immune response and promote healthy recovery from daily assaults. This Anti-Inflammatory Formula utilizes a strategy that combats inflammation via two pathways by combining a proprietary blend of fibrinolytic enzymes, 5-LOXIN® Boswellic acid and vitamin C derived from Camu Camu berries. Windhawk has loaded this Anti-Inflammatory Formula with quality ingredients at the concentrations recommended by research. Find out how this breakthrough in nutritional supplementation works – and the science behind it – in this helpful research summary.

Regulate inflammation. Support healing. Improve recovery time. Maintain health.

HOW MODERN LIFE CONTRIBUTES TO INFLAMMATION

A good offense attacks on many fronts. Windhawk's Balanced Naturals™ Anti-Inflammatory Formula uses a strategy that combats inflammation via both the COX and LOX pathways. This formula contains a proprietary blend of proteolytic enzymes, 5-LOXIN® Boswellic acid and vitamin C, all of which have well-documented anti-inflammatory properties that promote healthy recovery from daily assaults.

Swelling. Heat. Pain. Redness. We've all experienced the symptoms of inflammation after hurting ourselves. Inflammation is a temporary process that is your body's first response to injury, and it can be a lifesaver. When you are injured, your body increases the circulation to the area bringing in chemical factors that target the tissue for repair. This healthy process also triggers the immune system to fend off disease-causing pathogens, fight infection and remove damaged tissue.

But inflammation can go awry, becoming a chronic destructive process instead of the healthy temporary one. Many toxic dietary and lifestyle habits – including caffeine, red meats, saturated fats, processed sugars, physical and emotional stress, alcohol, cigarettes and exposure to environmental toxins – can assault the body, stress the immune system and lead to a long-term, low-grade inflammatory response.

CHRONIC INFLAMMATION: A DEADLY TRIGGER

For inflammation to be a temporary healing process it needs to be controlled by **Right Nutrition, Right Use and Right Mindset**. When one of these mediators is missing, long-term, low-grade inflammation is born.

When long-term, low-grade inflammation goes unmediated, expanding throughout the body, the immune system becomes overwhelmed and inefficient creating an overabundance of circulating immune complexes. These complexes build walls of fibrin inhibiting healing nutrients to

infiltrate the area to promote healing. **TIME MAGAZINE proclaimed in 2004, "Chronic inflammation may be the engine that drives many of the most feared illnesses of middle and old age."**¹ Researchers have discovered that chronic inflammation is associated with a host of diseases, including cardiovascular disease, cancer, arthritis, Alzheimer's, asthma, Crohn's disease and multiple sclerosis.

The evidence certainly demonstrates the role chronic inflammation has in common ailments. For example, a groundbreaking 1997 study found that middle-aged men with the highest levels of C-Reactive Protein (CRP), a molecule produced in response to an inflammatory signal, were three times as likely to suffer a heart attack over the next six years as those with the

lowest CRP levels.² Similarly, a 2006 study of 3,189 Australians concluded that those with high white blood cell counts – another marker of chronic inflammation – were at the greatest risk of dying from cancer.³

As an interconnected factor, research shows that obesity is associated with increased, system-wide inflammation.⁴ The correlation

is bolstered by studies demonstrating that weight loss reduces chronic inflammation.⁵ Even those with a healthy lifestyle and weight may still be a risk. Intense sports training and workouts can cause inflammation. Unwitting exposure to environmental toxins such as lead, dioxins, pesticides and mercury can also lead to inflammation.

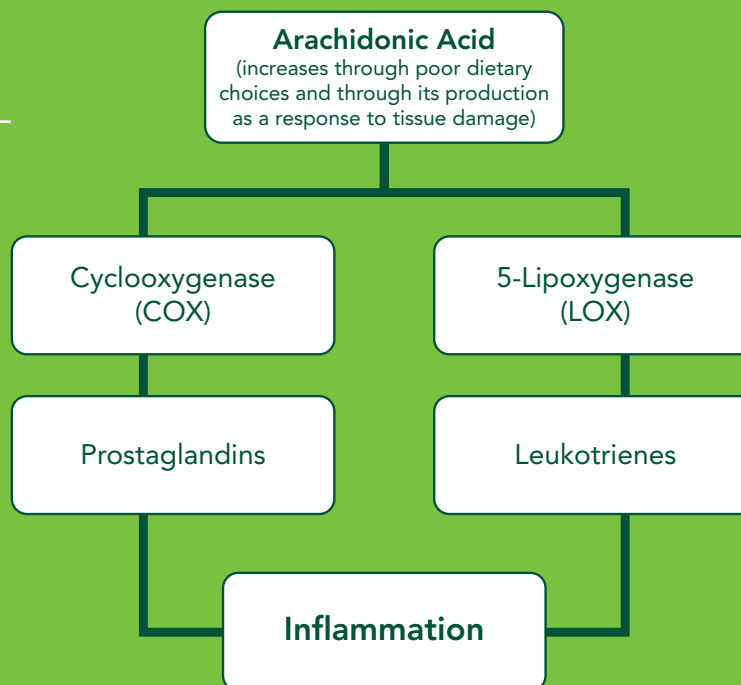
Clearly, research is showing that inflammation is a contributing factor in the world's most lethal diseases, not to mention countless other conditions that can affect life span and quality of life. The question is – what are you doing to combat it?

TIME MAGAZINE proclaimed in 2004, "Chronic inflammation may be the engine that drives many of the most feared illnesses of middle and old age."¹

If targeted destruction and assisted repair are not properly addressed, inflammation can lead to persistent tissue damage.

ARACHIDONIC ACID'S CASCADE OF DESTRUCTION

To better understand inflammation, let us first review the inflammatory cascade of one of the aforementioned chemical factors—arachidonic acid. Arachidonic acid increases through poor dietary choices and through its production as a response to tissue damage. This acid gives rise to two powerful and potentially damaging classes of inflammation mediators: prostaglandins and leukotrienes. Traditional anti-inflammatory therapy addresses one mediator leaving the other mediator active.



Add the strength of a good offense with Windhawk's Balanced Naturals™ Anti-Inflammatory Formula.

FIGHT INFLAMMATION THE RIGHT WAY

Until recently, anti-inflammatory therapy has been reserved for pain and injury. However, inflammation management should be an important part of your daily maintenance program. By regulating the "internal fires" of inflammation the **Right Way**, you can take a proactive role in both your healing process and your overall health. After all, the best defense against an inflammatory state is a good offense.

SPEED UP RECOVERY WITH PROTEOLYTIC ENZYMES

Chronic inflammation can lead to the excess production of fibrinogen, a protein that triggers swelling and clotting in blood and lymph vessels. Research shows that proteolytic enzymes can reduce pain and swelling, inhibit platelet aggregation and produce faster healing times by breaking down the excessive fibrin via the COX pathways of inflammation. Based on this research, this specific class of enzymes has been used historically to aid recovery following acute injury and surgery. Other benefits include blood cleansing (the removal of debris from the blood), decreased fluid retention and improved circulation.

It's no wonder that proteolytic enzymes have been embraced by athletes and trainers for decades. Every injured athlete wants to get back in the game as soon as possible. Fortunately, proteolytic enzymes can significantly improve recovery times. One study at Wayne State University found that nearly 70% of athletes treated with a proteolytic enzyme showed a better than expected recovery.⁶ Another study at Tulane University reported moderate to marked improvement in 85% of athletes taking proteolytic enzymes.⁷

Research is showing the exponential benefits of supplementing with a blend of proteolytic enzymes over single strain/dose. Windhawk's Balanced Naturals™ Anti-Inflammatory formula combines powerful fibrinolytic enzymes in one formula.

WINDHAWK'S PROPRIETARY ANTI-INFLAMMATORY ENZYME BLEND

With the discovery of new proteolytic enzymes, more effective enzyme combinations are now available for maximum effect. Our proprietary blend of active enzymes contains four proteolytic enzymes plus two digestive enzymes and two supportive ingredients.

Two key players in the proteolytic blend are nattokinase and serratiopeptidase. These systemic enzymes alone carry a powerful punch to combat the effects of inflammation by offering a tremendous synergistic effect on the body.

Nattokinase: Japan's Ancient Secret

Nattokinase is an exceptionally potent enzyme produced during the fermentation of soybeans through the action of *Bacillus subtilis*. The Japanese call this popular fermented soybean dish "natto" and have been eating it for some 400 years. As a result, it's been theorized that the unparalleled longevity of the Japanese people may result from their high consumption of this anti-inflammatory, anti-clotting "medicinal food."

Unchecked inflammation leads to the formation of fibrin. Circulating fibrin complexes adhere to red blood cells to form a clot. Our body's natural response to blood clot formation is the production of the proteolytic enzyme, plasmin - a central enzyme for dissolving a clot. Nattokinase has been found to enhance the body's ability to fight blood clots by dissolving clots directly and improving the production of plasmin and other clot dissolving enzymes.

Several studies have demonstrated the dramatic efficacy of nattokinase in breaking up clots.⁸ The discoverer of nattokinase, Dr. Hiroyuki Sumi, found that dogs with blood clots who were orally administered nattokinase were clot-free within just five hours.⁹ Another study involving humans reported that subjects who ate natto showed a heightened ability to dissolve clots for a prolonged period of two to eight hours.¹⁰

INGREDIENT	DERIVED FROM	FUNCTION
Protease blend	<i>Aspergillus oryzae</i> fungus	Breaks down proteins, including fibrin
Nattokinase	Fermented boiled soybeans	Breaks down proteins, including fibrin
Papain	Neck of the papaya fruit	Breaks down proteins, including fibrin
Bromelain	Stem of the pineapple fruit	Breaks down proteins, including fibrin
Serratiopeptidase	<i>Serratia</i> bacteria found in silk worms	Breaks down proteins, including fibrin
Amylase	<i>Aspergillus oryzae</i> fungus	Breaks down carbohydrates
Lipase	<i>Apergillus niger</i> fungus	Breaks down fats
Amla, Indian Gooseberry	The amla berry, found throughout Asia	Supports enzyme activity, antioxidant properties
Rutin	<i>Sophora japonica</i>	Supports enzyme activity

Components of Windhawk's Proprietary Anti-Inflammatory Enzyme Blend

Serratiopeptidase: Cutting edge in systemic enzyme therapy

Serratiopeptidase (Peptizyme® SP EN) is a powerful systemic enzyme that is absorbed directly from the intestine into the blood. Its potent anti-inflammatory properties are a result of its fibrinolytic activity. This activity of proteolytic enzymes can reduce the formation and accumulation of fibrin in the circulatory system that can become a significant risk factor for cardiovascular disease.

From a double-blind, placebo-controlled study of subjects suffering from acute or chronic ear, nose or throat disorders, it was concluded that serratiopeptidase has anti-inflammatory, anti-edemic (swelling) and fibrinolytic activity and acts rapidly on localized inflammation.¹¹ Another trial investigating the effect of serratiopeptidase on sputum properties and symptoms of patients with chronic airway diseases found that after just four weeks of treatment serratiopeptidase may exert a beneficial effect of mucus clearance by reducing neutrophil numbers and altering the viscoelasticity of sputum.¹²

Balanced Naturals™ Anti-Inflammatory Formula

You will notice that the Anti-Inflammatory Formula does not contain enzymes extracted from the pancreas of pigs, cows, or sheep. Researchers have concluded that plant-based enzymes are more stable, effective and function within a broad pH range when compared to enzymes extracted from animals.¹³

Enzymes are only effective if they're alive (active). The plant-based enzymes used in this formula are listed on the label in both Fibrinolytic Units and weight measurements. Product labels that only list the weight provide little guarantee of the product's true potency. Fibrinolytic Units are enzyme activity units specific for breaking down fibrin. This is important to look for when sourcing supplements for the regulation of inflammation.

THE MOST EFFECTIVE BOSWELLIC ACID: 5-LOXIN®

For centuries, the gum resin of the Boswellia tree (common in India) has been used as an anti-inflammatory remedy in Ayurvedic medicine. Its therapeutic effect has been traced to the six Boswellic acids, of which 3-acetyl-11-keto-β-Boswellia Acid (AKBA) is the most active. Unfortunately, most Boswellic extracts contain 2-3% AKBA. Thanks to a patent-pending process, 5-LOXIN® contains 30% AKBA (10 times more), representing the highest concentration of AKBA available.

Preliminary clinical trials have found Boswellia extracts effective in relieving the symptoms of rheumatoid arthritis. Supplementation with Boswellia extracts showed significantly greater improvement in knee pain, knee mobility, and walking distance.

To explain how this novel botanical agent works, you must first know about 5-lipoxygenase (5-LOX), a pro-inflammatory enzyme within the LOX inflammation pathway. 5-LOX is produced by the body to help us get rid of excess arachidonic acid, a fatty acid generated when we consume "bad fats" such as red meat and other saturated fats. As you know, the typical Western diet is overloaded with these unhealthy fats.

To process all this arachidonic acid, the body must produce increasing quantities of 5-LOX. That can prove harmful as 5-LOX is known to be a potent catalyst of the inflammation cascade. Numerous studies have linked 5-LOX (as well as its byproduct, the inflammatory lipid mediators known as leukotrienes) to various inflammatory disorders and the proliferation of cancer.^{14,15,16}

5-LOXIN® reduces inflammation

5-LOXIN® fights inflammation by binding directly to the 5-LOX enzyme to inhibit its activity. While other Boswellic acids only partially inhibit 5-LOX, AKBA does so more completely.^{17,18} That's why 5-LOXIN®'s industry-leading AKBA concentration (30%) is so impressive.

5-LOXIN® inhibits two adhesion molecules that are directly involved in the inflammation process – intracellular adhesion molecule (ICAM) and vascular cell adhesion molecule (VCAM). Endothelial VCAM-1, for example, plays a central role in recruiting white blood cells to areas of inflammation. Strikingly, a 2005 study found that 5-LOXIN® completely prevented VCAM-1 expression.¹⁹

5-LOXIN® is a non-competitive, highly selective inhibitor.²⁰ What this means is that 5-LOXIN® does not interact with other biological systems, which could cause side effects. Thus, its actions are targeted, and its safety is well-established.

An added benefit: promoting healthy joints

In addition to reducing inflammation, 5-LOXIN® has been shown to inhibit the breakdown of collagen found in joint cartilage and tissues. It does so by acting upon matrix metalloproteinase (MMP), an enzyme class involved in the degradation of joint tissues. A 2003 study found that osteoarthritis patients treated with Boswellic acids showed significantly greater improvement in knee pain, knee mobility and walking distance. The frequency of swelling was also decreased.²¹

Balanced Naturals™ Anti-Inflammatory Formula

You will notice that the Anti-Inflammatory Formula has the highest concentration of AKBA Boswellia extract available. When sourcing Boswellia extract for its anti-inflammatory properties, look for the percentage of AKBA not just Boswellia extract. Product labels that only list a percentage content of Boswellia extract (i.e. 65% Boswellic acids) provide little guarantee of the product's true content of AKBA.

Benefits of 5-LOXIN®

- Highest concentration of AKBA
- 10x more powerful than other sources
- Combats inflammation in the LOX pathway
- Inhibits adhesion molecules
- Highly specific action
- Inhibits collagen breakdown

YES, VITAMIN C IS AN ANTI-INFLAMMATORY TOO

Vitamin C is not just for the common cold. In addition to its antioxidant and anti-viral properties, vitamin C is an immune booster and a natural anti-inflammatory agent. A 2004 study of 1,393 smokers found that vitamin C supplementation at 515 mg/day produced a 24 percent reduction in plasma CRP, the classic marker of inflammation.²²

An easily overlooked outcome of inflammation is its diminishing effect on collagen. Collagen in connective tissue helps to support the vessels of the cardiovascular system. It is also a major component of the fibrous matrix of tissue such as cartilage, tendons and ligaments. The nutritive properties of vitamin C help prevent the breakdown of collagen within connective tissue.

Balanced Naturals™ Anti-Inflammatory Formula

This Anti-Inflammatory Formula is formulated with vitamin C from a food source not synthetic vitamin C, for example ascorbic acid. At Windhawk, we source our vitamin C from the Camu Camu berry, an Amazonian fruit with the highest recorded amount of natural vitamin C in the world (30 times more than oranges). Camu Camu has been found to be far more

effective than synthetic vitamin C tablets in providing a wide range of health benefits. Taking it one step further, our wild harvested Camu Camu is harvested at the optimal stage of vitamin C development. It is then stored at temperatures just above freezing to preserve the nutrients. At these temperatures it is gently concentrated in a cold liquid extraction and dried in a vacuum at low temperatures to protect the fragile vitamin C. This entire process yields an unusually potent concentrate. No other vitamin C product is as potent or pure.

CONCLUSION

Science has shown that inflammation is a cascading process involving multiple pathways. Combating inflammation requires support in all pathways. The nutrients in Balanced Naturals™ Anti-Inflammatory Formula have been shown to successfully work in the arachidonic acid cascade mediating both the 5-Lipoxygenase (LOX) and Cyclooxygenase (COX) pathways. This powerful combination of specialized ingredients is like none other and is certain to help you fight inflammation.



THE WINDHAWK PHILOSOPHY

SUPERIOR QUALITY WITH NO SHORTCUTS

Quality—Our Anti-Inflammatory Formula is manufactured in state-of-the-art facilities that meet the strict standards of the Natural Products Association's Good Manufacturing Practices (GMP) certification. Why is this important? Without the GMP stamp of approval, product labels may be false or misleading.

Purity—It's simple. If it's not pure, we don't use it. Our products have no genetically modified ingredients, no enzymes derived from animals, no additives, no preservatives, no pesticides, no chemicals, no dairy or soy, no synthetic vitamins, no inorganic mineral salts and especially no magnesium stearate. (Used to manufacture most supplements, magnesium stearate is a toxic substance that can reduce nutrient absorption.)

Activity—Supplemental enzymes are only effective if they're active (alive). That's why the plant-based enzymes found in our formula are listed in Fibrinolytic Units in addition to weight. Product labels that only list weight give you no guarantee of the true potency.

PRODUCTS FORMULATED WITH PASSION

At Windhawk, we spend an exhaustive amount of time selecting the ingredients used in our premium products. We use only the best organic and/or wildcrafted ingredients in the precise dosages recommended by research. Nothing is arbitrary. Nothing is synthetic. Many supplements are filled with artificial ingredients, and our refusal to compromise on quality is what sets us apart.

We're so passionate about our Anti-Inflammatory Formula because it's the first to combine proteolytic enzymes with 5-LOXIN® Boswellic acid and wild crafted Camu Camu berries. This synergistic blending of the most powerful natural anti-inflammatory agents makes it unlike any other product on the market.

GET BALANCED TODAY

For more information, or to order Windhawk's Balanced Naturals™ Anti-Inflammatory Formula, please visit www.windhawk.com.

- ¹ Gorman, Christine; Park, Alice; Dell, Kristina. "The Fires Within." *TIME*. February 23, 2004.
- ² Ridker PM, Cushman M, Stampfer MJ et al. Inflammation, aspirin, and the risk of cardiovascular disease in apparently healthy men. *N Engl J Med*. 1992 Apr 3; 336(14): 973-9.
- ³ Shankar A, Wang JJ, Rohtchina E et al. Association between circulating white blood cell count and cancer mortality: a population-based cohort study. *Arch Intern Med*. 2006 Jan 23;166(2):188-94.
- ⁴ Berg AH, Scherer PE. Adipose Tissue, Inflammation and Cardiovascular Disease. *Circ Res* 2005; 96; 939-949.
- ⁵ Heilbronn LK, Noakes M, Clifton PM. Energy restriction and weight loss on very-low-fat diets reduce C-reactive protein concentrations in obese, healthy women. *Arterioscler Thromb Vasc Biol*. 2001; 21: 968-970.
- ⁶ Holt HT. Carica papaya as ancillary therapy for athletic injuries. *Curr Ther Res* 1969; 11(10):621.
- ⁷ Trickett P. Proteolytic enzymes in the treatment of athletic injuries. *Appl Ther* 1964; 6: 647.
- ⁸ Sumi H, Hamada H, Tusushima H, Mihara H, Muraki H. A novel fibrinolytic enzyme (nattokinase) in the vegetable cheese Natto; a typical and popular soybean food in the Japanese diet. *Experientia* 1987; Oct 15; 43(10): 1110-1.
- ⁹ Sumi H, Hamada H, Nakanishi K, Hiratani H. Enhancement of the fibrinolytic activity in plasma by oral administration of nattokinase. *Acta Haematol* 1990; 84(3): 139-43.
- ¹⁰ Natto. Traditional Japanese Fermented Soy Beans with Recently Discovered Health Benefits and Novel Industrial Applications. Enzyme Wave, Volume 3. Amano Enzyme, Inc. June 2002: Pages 2-4.
- ¹¹ Mazzone A, Catalani M, Costanzo M, et al. Evaluation of Serratia peptidase in acute or chronic inflammation of otorhinolaryngology pathology: a multicentre, double-blind, randomized trial versus placebo. *J Int Med Res*. 1990 Sep-Oct; 18(5):379-88.
- ¹² Nakamura, S, Hashimoto Y, et al. Effect of the proteolytic enzyme serrapeptase in patients with chronic aciway disease. *Respirology*. 2003 Sep;8(3):316-20.
- ¹³ Santillo, Humbart MH, ND. Food Enzymes The Missing Link to Radiant Health, (Arizona, Holm Press, 1897), 43-48.
- ¹⁴ Helgadottir A, Manolescu A, Thorleifsson G et al. The gene encoding 5-lipoxygenase activating protein confers risk of myocardial infarction and stroke. *Nat Genet*. 2004 Mar;36(3):233-9.
- ¹⁵ Shindo K, Miyakawa K, Fukumura M. Plasma levels of leukotriene B4 in asthmatic patients. *Int J Tissue React*. 1993;15(5):181-4
- ¹⁶ Hassan C, Carraway RE. Involvement of arachidonic acid metabolism and eGF receptor in neurotensin-induced prostate cancer PC3 cell growth. *Regul Pept* 2006 Jan 15: 133(1-3): 105-14.
- ¹⁷ Safayhi H, Sailer ER, Ammon HP. Mechanism of 5-lipoxygenase inhibition by acetyl-11-keto-beta-boswellic acid. *Mol Pharmacol*. 1995 Jun;47(6):1212-6.
- ¹⁸ Sailer ER, Subramanian LR, Rall B et al. Acetyl-11-keto-beta-boswellic acid (AKBA): structure requirements for binding and 5-lipoxygenase inhibitory activity. *Br J Pharmacol*. 1996 Feb;117(4):615-8.
- ¹⁹ Roy S, Khanna S, Shah H et al. Human genome screen to identify the genetic basis of the anti-inflammatory effects of *Boswellia* in microvascular endothelial cells. *DNA Cell Biol*. 2005 Apr;24(4):244-55.
- ²⁰ Ammon HP, Safayhi H, Mack T, Sabieraj J. Mechanism of antiinflammatory actions of curcumine and boswellic acids. *J Ethnopharmacol*. 1993 Mar;38(2-3):113-9.
- ²¹ Kimmatkar N, Thawani V, Hingorani L et al. Efficacy and tolerability of *Boswellia serrata* extract in treatment of osteoarthritis of knee--a randomized double blind placebo controlled trial. *Phytomedicine*. 2003 Jan;10(1):3-7.
- ²² Block G et al. "Plasma C-reactive protein concentrations in active and passive smokers: influence of antioxidant supplementation." *J Am Coll Nutr*. 23:141-147, 2004.