

Mito-Booster



Clinical Applications:

- Recharges mitochondrial energy production
- Promotes immune resilience and detoxification
- Enhances antioxidant protection at the cellular level
- Supports optimal function of energy-demanding organs and tissues

ESSENTIAL NUTRITION

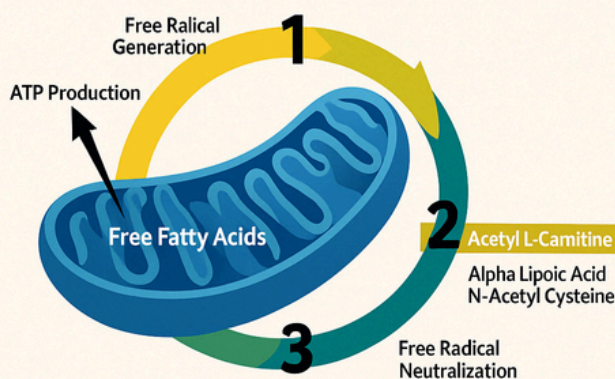
Mito-Booster is a science-backed formula designed to support cellular energy, enhance antioxidant defenses, promote detoxification, and strengthen immune function. Developed from peer-reviewed, double-blind research, this advanced blend features acetyl L-carnitine, alpha-lipoic acid, and N-acetyl cysteine—all shown to improve energy metabolism and immune support. Mito-Booster also includes powerful micronutrients and plant-based compounds like green tea extract, broccoli seed extract, and resveratrol to protect the mitochondria and help sustain the body's natural energy production cycle.

Overview

The body's cells and organ systems rely on a steady supply of energy to function at their best. At the center of this process are the mitochondria, the "powerhouses" of the cell, which convert food into usable energy in the form of ATP (adenosine triphosphate). ATP is the fuel that drives all cellular activity. To keep energy levels high, the body requires both adequate fuel for conversion and a strong supply of antioxidants to neutralize free radicals generated during energy production.

Factors like chronic stress, poor nutrition, lack of sleep, and certain medications can drain the body's energy reserves faster than they can be replenished. Even critical systems like liver detoxification, immune defense, cardiovascular function, and neurological activity demand large amounts of energy, making it essential to restore mitochondrial efficiency.

Mito-Booster is a research-driven formula designed to recharge cellular energy production and rebuild mitochondrial reserves. It includes the potent antioxidant trio—alpha-lipoic acid, N-acetyl cysteine, and acetyl L-carnitine—to fuel ATP generation and protect against oxidative stress. The formula also includes key antioxidant nutrients such as vitamin C, vitamin E, and glutathione to maintain cellular defense systems and support energy metabolism at the deepest level.



1. Foundation—Micronutrient Essentials

Cellular energy production requires adequate nutritional cofactors. This product provides key micronutrients to ensure the cycle of energy production is established.

2. Ignition—The Power Trio

This product works by providing Acetyl L-carnitine, alpha lipoic acid and N-acetyl cysteine to recharge cellular energy and help initiate energy produc-

3. Protection—Bioactive Phytonutrients

This product provides plant compound "signals" to stimulate proper mitochondrial function and guard against mitochondrial degeneration.

† These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Acetyl L-Carnitine

Acetyl L-Carnitine (ALC) is a powerful amino acid that plays a key role in boosting cellular energy production by enhancing the transport of free fatty acids into the mitochondria—where they are converted into ATP, the body's main energy source. As we age, increased free radical activity can damage the mitochondria, reducing energy output. ALC has been shown to restore mitochondrial function and, when combined with alpha-lipoic acid, significantly reduces oxidative stress. Additionally, ALC supports immune health by protecting important immune cells such as CD4 and CD8 T-cells, and enhancing lymphocyte production, which helps the body identify and eliminate harmful pathogens.

N-Acetyl Cysteine

N-Acetyl Cysteine (NAC) is a powerful antioxidant known for its ability to neutralize free radicals and enhance the body's detoxification capacity. It is a key precursor to glutathione, one of the most important antioxidants produced in the body. By increasing glutathione levels, NAC not only boosts antioxidant defenses but also supports the immune system, particularly by activating T-cells responsible for immune response.

Alpha Lipoic Acid

Alpha Lipoic Acid (ALA) is a unique antioxidant that works both in water- and fat-soluble environments, allowing it to protect cells throughout the body. ALA plays a synergistic role by helping to regenerate other antioxidants, such as vitamin C, vitamin E, CoQ10, and glutathione. It also contributes to detoxification and cellular defense mechanisms. When used alongside Acetyl L-Carnitine, ALA has been shown to significantly reduce oxidative stress, which can otherwise damage DNA, proteins, and cell membranes—particularly in high-energy organs like the brain. This combination is key to maintaining mitochondrial function and protecting cells from age-related decline.

Resveratrol

Resveratrol is a potent polyphenol found in plants like grapes and cranberries, and is especially concentrated in red wine. As a natural antioxidant, resveratrol helps protect plants from environmental stressors such as bacteria, fungi, and radiation. It is also believed to be a key contributor to the "French Paradox"—the observation that French populations maintain cardiovascular health despite a diet high in saturated fats. In addition to its cardiovascular

benefits, resveratrol has been shown to support immune system activity and help combat oxidative stress at the cellular level.

Broccoli Seed Extract

Broccoli seed extract contains a high amount of glucoraphanin, a compound that is a precursor to sulphoraphane. Sulphoraphane is an antioxidant and supports detoxification capacity and immune response. Sulphoraphane has been shown to induce Phase II detoxification enzymes and raise intracellular glutathione levels

Green Tea (EGCG)

Green tea extract is rich in polyphenols, particularly EGCG (epigallocatechin gallate), which provides strong antioxidant, immune-supporting, and even probiotic-enhancing properties. The hydroxyl groups in EGCG bind with free radicals, effectively neutralizing them and reducing oxidative stress throughout the body. Green tea polyphenols also promote detoxification by stimulating liver detox enzymes, helping the body eliminate toxins more efficiently and maintain metabolic balance.

The Micronutrient "Backbone"

For optimal cellular energy production, the body requires a foundation of essential vitamins and minerals to serve as enzyme cofactors in mitochondrial energy pathways. Mito-Booster delivers a strategically balanced micronutrient profile that supports not only energy metabolism but also fills daily nutritional gaps—providing the core support your cells need to stay energized, protected, and functioning at their peak.

Directions

Take 2 to 4 capsules daily, or as directed by your healthcare provider.

Does Not Contain

This product contains no gluten, corn, yeast, or artificial colors or flavors.

Cautions

If you are pregnant or nursing, consult your physician before taking this product

Supplement Facts		V4	
Serving Size 4 Capsules Servings Per Container			
	Amount Per Serving	% Daily Value	
Vitamin A (from 5,000 IU as Natural Beta Carotene)	1,500 mcg	167%	Selenium (as Albion® Selenium Glycinate Complex)
Vitamin C (as Ascorbic Acid USP)	250 mg	278%	Manganese (as Albion® Manganese Bisglycinate Chelate)
Vitamin D (D3 as Cholecalciferol)	25 mcg (1,000 IU)	125%	Chromium (as O-polynicotinate) (ChromeMate®)
Thiamin (Vitamin B1) (from Thiamine Hydrochloride USP)	15 mg	1,250%	Sodium
Riboflavin (Vitamin B2 USP)	15 mg	1,154%	Potassium (as Potassium Citrate USP)
Niacin (as Niacinamide USP)	15 mg	94%	N-Acetyl-L-Cysteine USP
Vitamin B6 (as Pyridoxine Hydrochloride USP)	15 mg	882%	Acetyl L-Carnitine Hydrochloride (MitoCarn®)
Folate (from 800 mcg as Quatrefolic® (6S)-5-Methyltetrahydrofolic acid glucosamine salt)	1,360 mcg DFE	340%	Malic Acid (as DiMagnesium Malate)
Vitamin B12 (as Methylcobalamin)	250 mcg	10,417%	Alpha Lipoic Acid (as R-Lipoic Acid)
Biotin	50 mcg	167%	Mixed Tocopherols
Pantothenic Acid (as d-Calcium Pantothenate USP)	15 mg	300%	Green Tea Leaf Extract (Standardized to contain 45% EGCG (Epigallocatechin gallate))
Choline (as Choline Bitartrate)	15 mg	3%	Broccoli Seed Extract (TrueBroc®) (Standardized to contain 13% Glucoraphanin)
Calcium (as Calcium Citrate USP) d-Calcium Pantothenate USP)	75 mg	6%	Inositol NF
Iodine (from Potassium Iodide)	37 mcg	25%	trans-Resveratrol (from Polygonum cuspidatum (Roots))
Magnesium (as DiMagnesium Malate)	75 mg	18%	
Zinc (as Albion® Zinc Bisglycinate Chelate)	5 mg	45%	

Other Ingredients: Hypromellose (Natural Vegetable Capsules), Magnesium Stearate, Ascorbyl Palmitate and Silicon Dioxide

References

1. Kaiser JD, Campa AM, Ondercin JP, Leoung GS, Pless RF, Baum MK. Micronutrient supplementation increases CD4 count in HIV-infected individuals on highly active antiretroviral therapy: a prospective, double-blind, placebo-controlled trial. *J Acquir Immune Defic Syndr* 2006; 42(5): 523-528.
2. Shigenaga M K, Hagen T M, et al. Oxidative damage and mitochondrial decay in aging. *Proc Natl Acad Sci U S A*. 1994; 91(23):10771-10778.
3. Hagen, TM, Liu J, et al. Feeding acetyl-L-carnitine and lipoic acid to old rats significantly improves metabolic function while decreasing oxidative stress. *Proc Natl Acad Sci U S A*. 2002; 99(4):1870-1875.
4. Di Marzio L, Moretti S, et al. Acetyl-L-carnitine administration increases insulin-like growth factor 1 levels in asymptomatic HIV-1-infected subjects: correlation with its suppressive effect on lymphocyte apoptosis and ceramide generation. *Clin Immunol* 1999; 92(1):103-110.
5. Deufel, T. Determination of L-carnitine in biological fluids and tissues. *J Clin Chem Clin Biochem* 1990; 28(5):307-311.
6. N-Acetylcysteine. *Altern Med Rev* 2000; 5(5):467-471.
7. Patrick, L. Nutrients and HIV: part three - N-acetylcysteine, alpha-lipoic acid, L-glutamine, and L-carnitine. *Altern Med Rev* 2000; 5(4):290-305.
8. Alpha-lipoic acid. Monograph. *Altern Med Rev* 2006; 11(3):232-237.
9. Ames, B. N. Optimal micronutrients delay mitochondrial decay and age-associated diseases. *Mech Ageing Dev* 2010; 131(7-8):473-479.
10. Ames, B. N. and Liu, J. Delaying the mitochondrial decay of aging with acetylcarnitine. *Ann N Y Acad Sci* 2004; 1033:108-116.
11. Resveratrol: Monograph. *Altern Med Review* 2010; 15(12):152-158.
12. Fahey JW, Talalay P. Antioxidant functions of sulphoraphane: a potent inducer of phase II detoxification enzymes. *Food Chem Tox* 1999;37:973-979.
13. Green Tea. *Altern Med Review* 2000; 5(4):372-5.

† These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.