

# MITOCORE



## RECOMMENDED USE

- A multivitamin and multiminerals supplement to maintain good health
- Helps in energy production
- Source of antioxidants that helps protect against oxidative stress

## ESSENTIAL NUTRITION

MitoCORE provides a source of vitamins and minerals to support biological functions that play a key role in the maintenance of good health and help maintain immune function. Formulated based on peer-reviewed, double-blind research, MitoCORE provides a blend of alpha lipoic acid, N-acetyl cysteine, micronutrients and phytonutrients, including green tea and resveratrol.

### Overview

The body's cells and organ systems depend on an adequate supply of energy to function optimally. The mitochondria, known as the power house of the cell, contain nutrients and enzymes that are important for cellular energy metabolism. Some of these enzymes convert food to usable energy in the form of adenosine triphosphate (ATP). ATP functions as the key source of energy for all cells. In order to increase mitochondrial

output, there must be adequate fuel supply for combustion and abundant antioxidants to scavenge free radical by-products. Preserving our energy reserves and increasing energy output is a critical part of maintaining optimal health.

There are many things that can drain our energy reserves. Lack of sleep, too much stress, poor nutrition and prescription medications can draw on our energy reserves, using them up faster than they can be replenished. Even the vital biologic systems we rely on to maintain health can create an energy deficit that needs to be restored.

MitoCORE is formulated, based on published research, to boost mitochondrial reserves and jumpstart cellular energy production.<sup>1</sup>

### N-Acetyl Cysteine

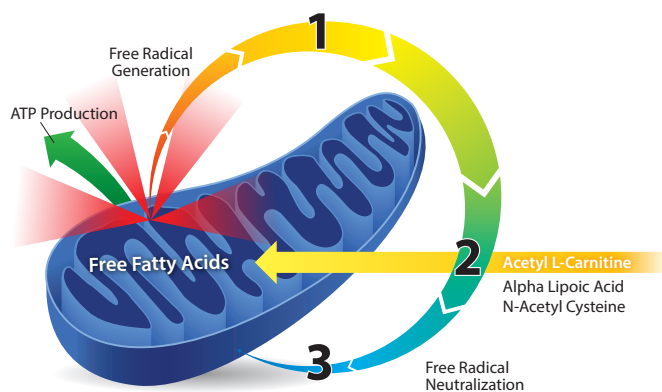
N-acetyl cysteine (NAC) is an antioxidant that scavenges free radicals. NAC has been shown to increase production of glutathione, an important antioxidant found in the body.<sup>2</sup>

### Alpha Lipoic Acid

Alpha lipoic acid (ALA) is an antioxidant and also plays a synergistic role in recharging other antioxidants, such as vitamin C, vitamin E, CoQ<sub>10</sub> and glutathione. Oxidative stress may cause damage to DNA, RNA, proteins, mitochondrial membranes and lipids, and it can contribute to the functional decline of mitochondria, cells and tissues.<sup>3,4</sup>

### Resveratrol

Resveratrol is a polyphenol molecule found in many plant species, including grapes and cranberries, and it is found in high concentrations in wine. Polyphenols act as antioxidants



### 1. Foundation—Micronutrient Essentials

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

that protect plants from damage that can be caused by bacteria, fungi and radiation.<sup>5</sup>

## Green Tea (EGCG)

Green tea polyphenols have demonstrated significant antioxidant-supporting properties.<sup>6</sup> The hydroxyl group of green tea polyphenols supports antioxidant activity by forming complexes with free radicals and neutralizing them, minimizing oxidative damage throughout the body.

## The Micronutrient “Backbone”

To increase cellular energy production efficiently, optimal levels of critical nutrients and enzyme cofactors must be achieved. MitoCORE is an energy-providing multivitamin with an optimized backbone of vitamins and minerals necessary for increasing energy output and meeting daily nutritional needs.

## Recommended Dose

**Adults:** Take 2 capsules daily, with food/meals, or as recommended by your health care professional. Take a few hours before or after taking other medications or natural health products. For use beyond 8 weeks, consult a health care practitioner.

## Medicinal Ingredients (per capsule)

Beta-carotene	750 mcg (1 250 IU)
Vitamin C (Ascorbic acid USP, Ascorbyl palmitate)	74.58 mg
Vitamin D3 (Cholecalciferol)	6.25 mcg (250 IU)
Thiamine (Thiamine hydrochloride USP)	3.75 mg
Riboflavin USP	3.75 mg
Niacin (Niacinamide USP)	3.75 mg
Vitamin B6 (Pyridoxine hydrochloride USP)	3.75 mg
Folate (Quatrefolic® (6S)-5-Methyltetrahydrofolic acid, glucosamine salt)	200 mcg
Vitamin B12 (Methylcobalamin)	62.5 mcg
Biotin	12.5 mcg
Pantothenic Acid (Calcium D-pantothenate USP)	4.85 mg
Choline (Choline bitartrate)	3.75 mg
Calcium (Calcium citrate USP)	18.75 mg
Iodine (Potassium iodide)	9.25 mcg
Magnesium (Dimagnesium malate)	18.75 mg
Zinc (Albion™ Zinc bisglycinate)	1.25 mg
Selenium (Selenium HVP chelate)	18.75 mcg
Manganese (Albion™ Manganese (II) bisglycinate)	0.25 mg
Chromium (Chromium (III) polynicotinate) (Chromemate®)	12.5 mcg
Potassium (Potassium citrate USP)	7.5 mg
N-Acetyl-L-cysteine USP	150 mg
N-Acetyl-L-carnitine hydrochloride	125 mg
DL-Alpha-Lipoic acid	50 mg
Green tea ( <i>Camellia sinensis</i> , Leaf) extract	11.25 mg (Std to 45% EGCG, 80% Catechins, 30:1, QCE 337.5 mg)
Broccoli (TrueBroc® <i>Brassica oleracea</i> var. <i>italica</i> , Seed) extract	10 mg (Std to 13% Glucoraphanin, 10:1, QCE 100 mg)
Inositol NF	3.75 mg
Resveratrol ( <i>trans</i> -Resveratrol) ( <i>Polygonum cuspidatum</i> , Root)	2.5 mg

## Non-Medicinal Ingredients

Mixed tocopherols concentrate, Hypromellose, Magnesium stearate, Silicon dioxide, Maltodextrin.

## Risk Information

Consult a health care practitioner prior to use. If you are pregnant or breastfeeding, have kidney stones and/or kidney disease, diabetes, seizure disorder, iron deficiency and/or liver disorder and/or if you are taking blood thinners, prescription medication (as resveratrol may alter the effectiveness of these medications). If you experience sweating, paleness, chills, headache, dizziness and/or confusion, discontinue use and consult a healthcare practitioner (as these may be symptoms

of serious low blood sugar). Do not use this product if you are taking antibiotics and/or nitroglycerin. Stop use if you develop symptoms of liver trouble such as yellowing of the skin/eyes (jaundice), stomach pain, dark urine, sweating, nausea, unusual tiredness and/or loss of appetite and consult a healthcare practitioner. Rare, unpredictable cases of liver injury associated with green tea extract-containing products have been reported (in Canada and internationally).

Store in airtight container, protected from light.

To be sure this product is right for you always read and follow the label.

## 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. N-Acetylcysteine. *Altern Med Rev*. 2000; 5(5):467-471.
3. Ames, B. N. Optimal micronutrients delay mitochondrial decay and age-associated diseases. *Mech Ageing Dev*. 2010; 131(7-8):473-479.
4. Ames, BN, Liu, J. Delaying the mitochondrial decay of aging with acetylcarnitine. *Ann N Y Acad Sci*. 2004; 1033:108-116.
5. Resveratrol: Monograph. *Altern Med Review*. 2010; 15(12):152-158.
6. Green Tea. *Altern Med Review*. 2000; 5(4):372-5.