

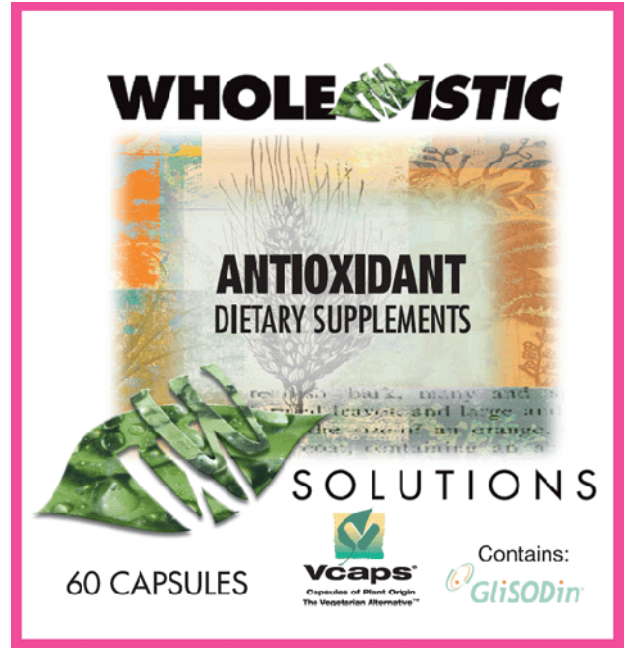


**Antioxidant**

Over the years many studies have proven the need for antioxidants to ward off the damage caused by free radicals in the body. While free radicals are necessary for energy and healthy immune function, they must be controlled to prevent cell and tissue damage. Free radicals are implicated in over sixty negative health conditions, including heart disease, cancer, macular degeneration, cellular degradation (aging), and numerous inflammatory diseases. Because the body is attacked by many different types of free radicals, many types of antioxidants are needed.

**Whole-istic Antioxidant Solutions** is a complete antioxidant formula offering broad spectrum protection from all types of free radicals. It includes not only the antioxidant vitamins A, C, and E in readily absorbable whole-food forms, and various minerals such as selenium, known for their antioxidant properties - it also includes a powerful combination of various botanicals and antioxidant nutrients including: alpha lipoic acid, L-glutathione, catechins from green tea, proanthocyanidins from grape seed, curcuminoids from turmeric, and countless other naturally occurring phytonutrients.

Select antioxidant enzymes have been added including **GliSODin™**, the only orally effective form of SOD. Also, as a result of the Microcluster® technology of Dr. Patrick Flanagan, MegaH™ has been included, which provides powerful hydrogen ions that scavenge many types of free radicals. Finally, digestive enzymes have been added to guarantee the maximum absorption and delivery of all these antioxidant ingredients. No other antioxidant formula on the market offers a more complete and diverse assortment of antioxidant fortification!



**Supplement Facts**

Serving Size: 1 Capsule  
 Servings Per Container: 60

Amount per serving		% DV
Vitamin A (from 100% beta-Carotene)	1500 I.U.	30%
Vitamin C (from Acerola Cherry Extract)	13.6 mg	23%
Vitamin E (Mixed Tocopherols)	10 I.U.	33%
Magnesium (from Amino Acid Chelate)	10 mg	3%
Zinc (from Zinc Citrate)	7.5 mg	50%
Selenium (from Amino Acid Chelate)	35 mcg	50%
Manganese (from Amino Acid Chelate)	5 mg	250%
Whole-istic Solutions Proprietary Blend	255 mg	
Acerola Cherry Powder Extract		*
Pomegranate Powder Extract		*
Broccoli Powder		*
Grape Seed Extract (95% Flavanoids)		*
Green Tea Powder Extract (95% Polyphenols)		*
Turmeric Powder Extract (95% Curcumin)		*
Alpha Lipoic Acid Powder		*
Citrus Bioflavonoids Complex		*
L-Glutathione		*
Superoxide Dismutase/Gliadin Complex (GliSODin®)	25 I.U.	*
Whole-istic Solutions Proprietary Enzyme Blend	89 mg	
Protease, Amylase, Lipase, Catalase, Cellulase		*

\*Daily Value not established  
 Other Ingredients: Vegetable cellulose, rice bran, maltodextrin, and L-Leucine





The specific functions of these nutrients are outlined below.

### **Antioxidant Enzymes**

#### **Superoxide Dismutase/Gliadin Complex**

**(GliSODin™)** is a unique vegetarian source of highly absorbable SOD that works synergistically with the body's own naturally occurring SOD to prevent the oxidative effects of the superoxide radical. Excess superoxide free radicals can lead to inflammation, cellular tissue toxicity, degenerative diseases, accelerated aging, and lowered cellular defenses. GliSODin™ is the first S.O.D. shown to increase the body's own S.O.D. levels by oral ingestion. S.O.D, also known as the master antioxidant, is the body's number 1 free radical fighter.

**Catalase** acts as a catalyst in the breakdown of hydrogen peroxide, a highly destructive oxidative compound. Supplemental catalase works synergistically with endogenous catalase to prevent the oxidative effects of hydrogen peroxide, a byproduct of SOD activity, by converting this oxygen radical into water and oxygen. The molecular waste created by the free radical/antioxidant interaction can then be eliminated from the body.

### **Botanicals and Extracts**

**Pomegranate Extract 40%** - Pomegranate's polyphenols such as Ellagic Acid have been found to possess antioxidant, anti-inflammatory, anti-viral and anti-tumor activities that have potential therapeutic benefits in a variety of diseases. A case study published in the September 2005 Journal of Nutrition demonstrated the ability of pomegranate fruit extracts to slow the deterioration of human cartilage (Osteoarthritis). Another study indicates that pomegranate is clinically effective on a depressive state and on bone

loss in menopausal syndrome in women. Polyphenols have shown potential anti-aging and neuroprotective effects.

Pomegranate extract studies have demonstrated anticarcinogenic properties that are effective in suppressing a variety of cancers, including skin, breast, prostate, lung and colon cancers. One study confirmed that Ellagic acid effectively protects cells from the damage of free radicals. Additional phenolic compounds found in pomegranate known as anthocyanidins combine synergistically with Ellagic acid to greatly augment pomegranate's potency as an antioxidant. Experimentation by Stoner and Mukhtar showed that Ellagic acid decreased the number of chemically induced lung tumors by 44-75%. Mukhtar further illustrated that topical application of Ellagic acid provided protection against chemically induced skin tumors. Studies at the University of Wisconsin indicate that pomegranate fruit extract possesses anti-skin-tumor-promoting effects, and may possess chemopreventive activity "in a wide range of tumor models" including its ability to prevent or slow prostate cancer. In a 2002 University of Illinois study, pomegranate seed oil inhibited the proliferation of human breast cancer cells up to 90%, while fermented pomegranate juice polyphenols inhibited 47% of cancerous lesion formation in mammary gland cells from mice. Pomegranate extract has been shown to be higher in antioxidant activity than red wine and green tea.

Pomegranate's powerful antioxidants appear to inhibit the onset of atherosclerosis, reduce the risk of heart disease, and mediate high blood pressure. A recent study by the Lipid Research Laboratory in Haifa, Israel, noted that pomegranate juice was associated with the inhibition of low-density lipoprotein (LDL) oxidation and with slowing the development of





atherosclerosis. In the pomegranate-supplemented group, carotid intima-media thickness, an indicator of atherosclerosis progression, was reduced by up to 30%. By contrast, in a control group that did not consume pomegranate juice, carotid intima-media thickness increased by 9% over 12 months. A recent Iranian study using pomegranate juice showed significant reductions in total cholesterol, LDL, LDL/HDL ratio, and total cholesterol/HDL ratio. Of special interest is the inverse relationship between the intake of dietary nutrients rich in polyphenols and cardiovascular diseases.

**Citrus Bioflavonoids Complex** - Citrus Bioflavonoids are potent antioxidants and contain compounds that may help the body fight cancer-causing substances, say scientists at the US Agricultural Research Service. These bioflavonoids inhibit the formation of carcinogens from cigarette smoke, pesticides and other substances. A recent trial showed the citrus bioflavonoid, hesperidin, protected cells against damage induced by paraquat (a poisonous herbicide) and hydrogen peroxide. The laboratory further reports a number of in vitro and in vivo anti-inflammatory and anticancer actions.

Citrus bioflavonoids have been shown to reduce cholesterol levels, decrease aortic fat and lower blood pressure and heart rate. Citrus bioflavonoids are thought to strengthen the walls of blood vessels and are widely used in Europe to treat diseases of the blood vessels and lymph system, including hemorrhoids, chronic venous insufficiency, leg ulcers, easy bruising, nosebleeds, and lymphedema following breast cancer surgery. Citrus bioflavonoids may benefit diabetics by reducing hypertriglyceridemia and reduce allergic reactions. Another study indicates that

hesperidin inhibits bone loss in an animal model of postmenopausal osteoporosis.

**Green Tea Extract** is very high in polyphenols, which scavenge free radicals. The primary polyphenols in green tea are the flavonoids catechin and proanthocyanidins. Catechins are powerful antioxidants which currently are being investigated for their ability to prevent cancer and heart disease. Proanthocyanidins are known to scavenge oxidants and free radicals, thus helping to inhibit the process of tissue oxidation.

Researchers from The University of Kansas measured the antioxidant content of green tea and found that it is 100 times more effective than vitamin C and 25 times better than vitamin E at protecting cell membranes from the damaging oxidative effects of free radicals. These potent antioxidant capabilities have led many studies to conclude that Green tea may help prevent heart disease, have anti-cancer properties, and numerous other health benefits.

**Turmeric (rhizome) Extract** is a spice whose oils contain curcuminoids, compounds which provide strong antioxidant activity. The unique antioxidant properties of these naturally occurring phenolic compounds are of great interest in medicine. Curcuminoid is purported to have numerous other benefits, such as decreasing cholesterol levels and acting as an anti-inflammatory. Traditional Ayurvedic practitioners have used turmeric to treat digestive ailments, infections, arthritis, and fever. Evidence suggests that turmeric may be useful for digestive support, anti-inflammatory support, cardiovascular support, immune support, as well as antioxidant support.

**Grape Seed Extract** contains abundant amounts of proanthocyanidins (PCOs), one of the most beneficial groups of plant flavonoids.





Proanthocyanidins are known to scavenge oxidants and free radicals, thus helping to inhibit the process of tissue oxidation. Grape seed is also a source of the phenol resveratrol, which has been shown to possess cardio-protective and anti-cancer properties. Grape seed has also been reported to inhibit xanthine-oxidase, an enzyme that creates free radicals. Its flavonoids and other plant phenolics are thought to possess anti-carcinogenic, anti-inflammatory, anti-mutagenic, and immune-stimulating properties. These properties make grape seed extract excellent as an antioxidant, and good for overall health.

**Broccoli** contains several natural antioxidants, including flavonoids, vitamin C, vitamin E, and  $\beta$ -carotene. Flavonoids, which are antioxidant in nature, are nutrients found naturally in many vegetables. They are known to have many healthy effects in the body by helping to protect cells from free radicals. Vitamin C is a major antioxidant used to reduce oxidation by free radicals in blood.  $\beta$ -carotene is the major antioxidant found in the cell membrane structures. In addition to  $\beta$ -carotene, vitamin E is also located in cell membrane and is capable of reducing the free radicals in those structures.

### Vitamins

**Vitamin C from Acerola Cherry Extract** - Acerola Cherries are the fruit of a small tree or shrub called the *Malpighia glabra L.* Acerola is an excellent natural source of Vitamin C, with this extract providing 17% Vitamin C. Vitamin C is an excellent free radical scavenger in the bloodstream due to its antioxidant properties. It also helps return vitamin E to its active form.

**Vitamin E from Mixed Tocopherols** – Vitamin E is a fat-soluble vitamin that is an essential nutrient for humans. Vitamin E is known to be a powerful antioxidant that functions in protecting the cell

membrane structures in the human body from oxidative damage. The vitamin E in this product is a natural source of mixed tocopherols extracted from bean and seed oils. The U.S. National Academy of Sciences has officially recognized that natural vitamin E is twice as potent and retained twice as much as synthetic vitamin E. More than twice as much natural vitamin E reaches the blood and organs than synthetic vitamin E. The four naturally occurring tocopherols present in this formula are alpha, beta, gamma, and delta-tocopherols. The advantage to having the mixed form of vitamin E is that they have differing roles in the body. The two most important forms of vitamin E are alpha-tocopherol and gamma-tocopherol. All forms have shown antioxidant activity, but alpha-tocopherol is the strongest antioxidant. The beta form is the next most powerful, followed by gamma and delta. Alpha-tocopherol inhibits the oxidation of LDL, which can help to prevent LDL from sticking to the arterial walls. Whereas alpha-tocopherol is an excellent reactive oxygen species (ROS) scavenger, Gamma-tocopherol is a more effective reactive nitrogen species (RNS) scavenger. Gamma-tocopherol is able to prevent cellular damage from peroxynitrite, which can adversely react with DNA, proteins, and phospholipids. In addition, some studies indicate that gamma-tocopherol can inhibit the apoptosis of coronary vessel endothelial cells that is mediated by oxidized LDL. In summary, the mixed tocopherols in this formula offer a more comprehensive and biologically active antioxidant solution than singular or synthetic forms of vitamin E.

**Vitamin A from 100%  $\beta$ -carotene** -  $\beta$ -carotene is known as one of the dietary precursors to Vitamin A and is a member of a class of substances known as carotenoids.  $\beta$ -carotene and the other carotenoids are found primarily in plants, algae, and photosynthetic bacteria. The





$\beta$ -carotene in this formula is derived from the photosynthetic algae, *Dunaliella salina*, a natural source of mixed carotenoids.  $\beta$ -carotene is a major antioxidant found in the cell membrane structures. Studies indicate that  $\beta$ -carotene has the ability to quench singlet oxygen, scavenge peroxy radicals, and inhibit lipid peroxidation. Through these actions,  $\beta$ -carotene can help limit the damage the body incurs due to the various oxidative processes that occur on a daily basis. These wide-ranging antioxidant characteristics make  $\beta$ -carotene with mixed carotenoids a natural choice for this comprehensive antioxidant formula.

### **Minerals**

**Zinc from Zinc Citrate** - Zinc is an essential trace mineral. It is related to the normal absorption and action of vitamins, especially the B complex vitamins. During inflammation, a large amount of nitric oxide (NO) is produced, which can result in tissue damage. Studies suggest that zinc may function in an antioxidant capacity by scavenging cytokine-induced NO resulting from the inflammation. Oxidative damage to skin cells from u-v radiation may also be suppressed by the reported antioxidant properties of zinc.

**Selenium (from Amino Acid Chelate)** is another trace mineral that is known to have antioxidant properties. Selenium seems to inhibit cell proliferation, which may make it a useful supplement for antioxidant and anti-cancer support. A deficiency in this vital mineral has been linked to cancer and heart disease.

**Manganese (from Amino Acid Chelate)** plays a role in activating numerous enzymes. Manganese is a catalyst in the synthesis of fatty acids and cholesterol. Manganese was used in this formula because it also functions as an antioxidant that protects against tissue damage resulting from burning fats.

**Magnesium (from Amino Acid Chelate)** has many functions in the human body. It is necessary for proper bone development, nerve and muscle function, and numerous metabolic functions. Magnesium was added to this formula because it is an activator and cofactor for many enzymes in the human body. Adding magnesium to this formula helps the body's endogenous enzymes to function properly, carrying out their roles in protecting the body from oxidative damage.

### **Other Ingredients**

**Alpha Lipoic Acid (ALA)** is a potent biological antioxidant manufactured in the human body. To stay healthy, our bodies must maintain a high level of ALA, but unfortunately, as we age we manufacture less and less of it. ALA is able to scavenge a wide range of reactive oxygen compounds including the hydroxyl radical, nitric oxide radical, peroxy nitrite, hydrogen peroxide, and hypochlorite. Alpha Lipoic Acid has also been shown to have antioxidant activity in both intracellular and extracellular environments, making it particularly adaptable for use as a system-wide antioxidant.

**L-Glutathione** is a ubiquitous compound found in nearly every form of identified life. It plays an essential role in the health of people due to its antioxidant capabilities. Glutathione protects the body from oxidative damage by acting as an oxidation-reduction buffer for reduced proteins.

### **Digestive Enzymes**

Protease, Amylase, Lipase, and Cellulase guarantee the maximum absorption and delivery of all the ingredients in this formula and promote the overall function of the digestive tract.

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