



### COMPLETE NUTRIENT SYSTEM CONTAINS

- 30 Ultra Antioxidant capsules
- 30 Mega Multivitamin tablets
- 30 Cardiovascular Support capsules
- 30 Neurologic Support tablets
- 30 Metabolic Support tablets
- 30 Immune Support capsules
- 30 Stress Support softgels

## Supplement Facts

Serving Size 1 Pack (3 capsules / 3 tablets / 1 softgel) • Servings Per Container 30

Amount Per Serving	%DV†	Amount Per Serving	%DV†
Calories	7	Inositol	92 mg *
Calories from Fat	7	Choline (from Choline Citrate/Bitartrate)	84 mg *
Total Fat	0.75 g 1%	PABA (para-Aminobenzoic Acid)	75 mg *
Saturated Fat	0 g 0%	Standardized Curcumin Extract (root, 95% Tetrahydrocurcuminoids)	75 mg *
Vitamin A (38% as Beta Carotene/62% [17,500 IU] as Vitamin A Palmitate)	28,333 IU 567%	Standardized Boswellia Extract (gum, 60% Boswellic Acids)	75 mg *
Vitamin C (Ascorbic Acid/Ascorbyl Palmitate/Calcium Magnesium Ascorbate Complex)	658 mg 1,097%	Standardized Green Tea Extract (leaf, 35% Epigallocatechin Gallate)	75 mg *
Vitamin D-3	400 IU 100%	Quercetin Dihydrate	75 mg *
Vitamin E (d-alpha Tocopheryl Succinate)	285 IU 950%	L-Pyroglutamic Acid	63 mg *
Thiamine (as Thiamine HCl/Thiamine Mononitrate)	98 mg 6,533%	Tyrosine (as L-Tyrosine USP)	63 mg *
Riboflavin (Riboflavin-5-Phosphate)	92 mg 5,412%	Borage Oil Providing:	63 mg *
Niacin/Niacinamide	107 mg 535%	Gamma Linolenic Acid (GLA)	15 mg *
Vitamin B-6 (Pyridoxine HCl/Pyridoxal-5-Phosphate)	82 mg 4,100%	RNA	60 mg *
Folic Acid	400 mcg 100%	Alpha-Lipoic Acid	50 mg *
Vitamin B-12	85 mcg 1,417%	Thymus (Raw Concentrate, not an extract)	50 mg *
Biotin	75 mcg 25%	Young Sprouts (supplying Superoxide Dismutase, Catalase and Glutathione Peroxidase)	40 mg *
Pantothenic Acid (as Calcium Pantothenate)	98 mg 980%	Eleutherococcus Senticosus (root), dried extract, min. 0.8% Ginsenosides	38 mg *
Calcium (from Calcium AAC Complex†††)	62 mg 6%	Ashwagandha Root and Leaves, dried extract, min. 1.5% Withanolides, 1% Alkaloids	38 mg *
Iron (from Iron AAC†††)	10 mg 56%	Rutin	28 mg *
Iodine	150 mcg 100%	Glutamic Acid	25 mg *
Magnesium (from Magnesium AAC†††/Magnesium Malate)	26 mg 7%	Co-Enzyme Q10 (Ubiquinone**)	25 mg *
Zinc (from Zinc AAC†††/Zinc Picolinate)	21 mg 140%	DMAE (Dimethylaminoethanol)	25 mg *
Selenium (from Selenium AAC†††/Sodium Selenate/Krebs††)	42 mcg 60%	Lymph (Raw Concentrate, not an extract)	25 mg *
Copper (from Copper AAC†††)	0.25 mg 13%	Spleen	25 mg *
Manganese (from Manganese AAC†††)	6.1 mg 305%	Resveravine® (Grapevine Shoot Extract, containing approximately 2.5 mg of Resveratrol and 2.5 mg of Viniferin)	25 mg *
Chromium (as GTF/Chromium AAC†††)	10 mcg 8%	Ginkgo Biloba Leaf, dried extract, min. 27% Ginkgo Flavone Glycosides, min.7% Terpene Lactones	20 mg *
Sodium (from 150 mg Sodium Succinate)	43 mg 2%	Bromelain (Dehydrated Pineapple)	20 mg *
Potassium (from Potassium AAC†††)	10 mg <1%	Betaine (from 25 mg Betaine HCl)	19 mg *
Natural Triglyceride Marine Lipid Concentrate	667 mg *	Glutathione	17 mg *
Providing:		Red Grape Seed, Skin, and Stem, dried extract	13 mg *
Eicosapentaenoic Acid (EPA)	120 mg *	Hesperidin Complex	12 mg *
Acetyl-L-Carnitine hydrochloride	225 mg *	Docosahexaenoic acid (DHA, from Neuromins™™™™ microalgae powder)	11 mg *
Lecithin (from soy)	163 mg *	Pycnogenol®	8 mg *
Phosphatidylcholine	66 mg *	L-Methionine	7 mg *
Phosphatidylethanolamine	13 mg *	Dimethylglycine (from 8 mg Dimethylglycine HCl)	6 mg *
Phosphatidylinositol	9 mg *	Bee Pollen	500 mcg *
Phosphatidylserine	13 mg *		
Citrus Bioflavonoid Complex	132 mg *		
Malic Acid (as Magnesium Malate)	128 mg *		
Glutamine (as L-Glutamine FCC)	125 mg *		
N-Acetyl-L-Cysteine	117 mg *		
Creatine Monohydrate	100 mg *		

**OTHER INGREDIENTS:** Cellulose, gelatin (capsule), vegetable stearate, silica, water, Absorbisol (a blend of fatty acids and Bioperene®), alfalfa, modified cellulose gum, stearic acid and ethyl cellulose.

### SUGGESTED USAGE

As a dietary supplement, adults take 1 pack daily or as directed by physician, for 5 days, skip 2 days, repeat cycle. This product is best taken with meals.

This product contains NO yeast, wheat gluten, milk/dairy, corn, sugar, starch, artificial coloring, preservatives or flavoring.

**WARNING:** Due to the Vitamin A dose, this product is not recommended for women who may become pregnant or of child bearing age.

**WARNING:** Accidental overdose of iron-containing products is a leading cause of fatal poisoning in children under 6. In case of accidental overdose, call a doctor or poison control center immediately.

**WARNING:** Please consult your physician before using this product. Not to be taken by individuals under the age of 18.

## KEEP OUT OF REACH OF CHILDREN

For optimal storage conditions, store in a cool, dry place. (59°-77°F/15°-25°C)(35-65% relative humidity) Tamper resistant package, do not use if outer seal is missing.

††Krebs = Citrate, Fumarate, Malate, Glutarate and Succinate Complex.

†††AAC = Amino Acid Chelate

\*\*Formulated with Absorbisol, a blend of fatty acids and Bioperene®.

\*\*\*Neuromins is a trademark of Martek Biosciences Corporation; U.S. Patent Nos. 5,407,957 and 5,492,938.

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## NUTRITROPIN® FUNCTIONS

### Cardiovascular Support Capsule

Body cells and tissues are threatened continuously by damage caused by toxic free radicals and reactive oxygen species (e.g., peroxides) which are produced during normal oxygen metabolism, by other chemical reactions, and by toxic agents in the environment. Free radicals, once formed, are capable of disrupting metabolic activity and cell structure. When this occurs, additional free radicals are produced which, in turn, can result in more extensive damage to cells and tissues. The uncontrolled production of free radicals is thought to be a major contributing factor to many degenerative pathologies. The body's antioxidant defense system is more than the sum of its parts. That's because antioxidants depend on each other for ongoing effectiveness. For example, beta-carotene supports vitamin E, recognized as the body's most valuable fat soluble antioxidant. It prevents oxidation of unsaturated fatty acids by inactivating free radicals, thus stabilizing and protecting cell membranes, e.g. in the lungs, eyes, and arteries. Vitamin E can be regenerated by vitamin C. Vitamin C is a potent water-soluble antioxidant nutrient, also protecting cells from oxygen free radical damage. It is essential for connective tissue and bone metabolism, capillary health, and immune function. Vitamin C works together with vitamin E. When vitamin E is inactivated by neutralizing free radicals, vitamin C regenerates it back to full activity. In this process, however, vitamin C is oxidized

and loses its antioxidant activity. Glutathione reactivates vitamin C, while selenium and B-vitamins are needed to keep glutathione effective. Glutathione is a naturally occurring tripeptide which is a major component of two anti-free radical enzymes - glutathione peroxidase and glutathione reductase. As such, glutathione offers one mechanism for scavenging toxic free radicals and inhibiting peroxidation thereby slowing down free-radical catalyzed chain reactions. Glutathione can also reactivate (reduce) oxidized vitamin C. Glutathione per se is well absorbed in the intestine, and enters the blood and other extracellular compartments where it exerts much of its beneficial antioxidant effects. However, it can not effectively enter the cell. N-Acetylcysteine is a precursor for the sulfur amino acid cysteine which is used by the cells to synthesize glutathione. In contrast to glutathione, N-acetylcysteine is efficiently transported into the cell where it is readily converted to cysteine for glutathione synthesis. Thus, supplementation with N-acetylcysteine is recognized as a safe, highly effective method of increasing intracellular glutathione stores. Aside from providing cysteine as a glutathione precursor, N-acetylcysteine also appears to have antioxidant properties as such, and is a valuable sulfur donor for various metabolic needs. The bioflavonoids, i.e. rutin, hesperidin, and Pycnogenol., provide additional antioxidant power, while zinc is needed to maintain the activity of the antioxidant enzyme superoxide dismutase.

### Mega Multivitamin Tablet

Nubeau uses only the purest, most hypoallergenic ingredients, and contains no yeast; corn; wheat; sugar or other sweeteners; artificial colors, flavors or preservatives. Every batch is expiration dated to guarantee to provide a minimum of 100% of label claim for all ingredients up to the date printed on the label. Studies have shown that a high percentage of adults and children in North America and other developed countries eat less than the minimum daily allowance of 10 or more essential nutrients. Adequate amounts and proper balances of these nutrients are needed not only for maintaining good health, but also for the dietary management and prevention of chronic diseases. Nutritropin has been carefully developed to contain potent amounts of essential nutrients, such as beta carotene, vitamin c, vitamin E and B-complex vitamins due to their vital roles in antioxidant protection, energy protection and maintenance of healthy blood cells, nervous system, hormonal balance and more. Minerals and elements are provided in their safest and most bioavailable forms, such as amino acid chelate and other scientifically validated and superior forms.

### Ultra Antioxidant Capsule

The cause of discomfort, especially in the joints, can be linked to the degradation of arachidonic acid to certain leukotrienes and prostaglandins via the cyclooxygenase and lipoxygenase pathways. Many of these eicosanoids are potential mediators of inflammation. Modern science has found that by inhibiting the enzymatic activity of cyclooxygenase and lipoxygenase, the discomfort experienced with aging joints can be reduced. Non Steroidal Anti Inflammatory Drugs (NSAIDs) have been used extensively to support the joints during the normal aging process, but are often associ-

ated with side effects including gastrointestinal disorders and liver damage. Resveratrol: The use of red wine for health has been well documented. Polyphenols are a class of compounds thought to be responsible for some of wine's beneficial properties and can be found throughout the plant itself, not exclusively in the fruit itself. Resveratrol is a non alcoholic polyphenolic constituent of red wine that has been studied extensively, with results that show it to be effective for a variety of health related problems, including the regulation of normal inflammatory processes. Recent studies have demonstrated that resveratrol can modify normal inflammatory responses in human and animal cells by way of inhibition of the cyclooxygenase and lipoxygenase pathways. In addition to the inhibition of these pathways, resveratrol was also found to induce significant inhibition of the adhesion of certain inflammatory cells, thus giving way to the assertion that it plays a major role in joint health. Nutritropin contains a unique form of resveratrol, derived from grapevines, thus giving maximum benefit and absorption.

### **Neurologic Support Tablet**

The nutrients in Nutritropin work together in four different capacities to support and protect mental and nervous system function: neurotransmitter synthesis support, enhancement of microcirculation to the brain, nerve cell membrane stabilization and repair, and attenuation of the stress response. Neurotransmitter metabolism support: Nutritropin provides several important nutrients which contribute to the metabolism of key neurotransmitters as precursors, substrate, or stimulators of neurotransmitter production and subsequent release. Optimal neurotransmitter generation and release is essential for proper communication between nervous system cells, and thus for healthy nervous system function. Acetyl-L-Carnitine: This acetylated high energy ester of the amino acid L-carnitine contributes its acetyl groups to the production and release of acetylcholine, the primary neurotransmitter for memory and thought. The carnitine component plays a key role in the transport of fatty acids into the nerve mitochondria where they serve as fuel for cellular energy production. L-Glutamine: Glutamine, a non-essential amino acid, easily crosses the blood-brain barrier where it can be converted into two important neurotransmitters, the excitatory L glutamic acid and the major inhibitory neurotransmitter gamma amino butyric acid. Choline & Lecithin (Phosphatidylcholine): Choline, related to the B vitamins, is the other critical precursor of acetylcholine. Choline is water soluble and is therefore quickly available to participate in acetylcholine synthesis. Phosphatidylcholine, which can be a source of choline, is fat-soluble; as such, phosphatidylcholine has a longer-lasting, sustained effect on acetylcholine production. DMAE (dimethylaminoethanol): DMAE, a precursor of choline in the brain, also supports acetylcholine synthesis through its ability to cross the blood brain barrier. Research indicates that DMAE supplementation appears to enhance short-term memory and learning speed. L-Pyroglutamic acid: This amino acid compound stimulates synthesis and release of acetylcholine by boosting the metabolism of specific nerve cells responsible for the release of this important neurotransmitter. L-Tyrosine: L-tyrosine, a conditionally-essential amino acid is a direct precursor of norepinephrine and dopamine,

two important catecholamines. Norepinephrine is involved in long-term memory and has an energizing, mood-elevating action. Dopamine is the principal neurotransmitter involved in central nervous system control of muscle movement. Enhancement of microcirculation of the brain: The brain depends on the circulatory system to provide a constant supply of oxygen and glucose to support the function of this extremely metabolically active organ. Any deficit in cranial blood flow deprives the brain of essential oxygen and glucose. As a result, the brain's significant metabolic demands will not be met and mental function can be moderately to severely impaired. Two key components of Nutritropin actively support blood flow to the brain. Ginkgo Biloba: Flavonoid compounds and terpene lactones in the ginkgo leaf help regulate the tone and elasticity of both arteries and capillaries. Increasing circulation to the brain and other parts of the body allows for better oxygen and glucose uptake, with subsequent enhancement of memory and mental functions. Acetyl-L-Carnitine: Research has found that this amino acid compound is also active in increasing cerebral blood flow. Nerve cell membrane repair and restoration: Cell membranes act in part as gatekeepers, regulating the transport of nutrients into and waste products out of a cell. The fluidity and integrity of these cell membranes are essential for proper regulation of transport mechanisms and subsequently of the cell environment. Specific nutrients which stabilize and restore cell membrane health and integrity are included in Nutritropin. Acetyl-L Carnitine: This amino acid compound is further involved in mental and nervous system function as it helps preserve and restore the stability and fluidity of nerve cell membranes. Phosphatidylserine: This phospholipid, found in high concentrations in the nervous system, helps maintain fluidity of nerve cell membranes, thus providing for optimal transport of nutrients and other compounds across the cell membrane. It is also used in the repair and regeneration of nerve cells. Lecithin: Lecithin is a primary source of phosphatidylcholine, which is used to repair and maintain nerve cell membranes. Phosphatidylcholine is also a major constituent in the synthesis of myelin, the insulating sheath around nerve cells that helps ensure effective transmission of nerve cell activity. DHA (docosahexanoic acid): DHA, a fatty acid prominent in brain and nerve cells, is essential for optimal neural and retinal development and maintenance. It also contributes to myelin synthesis and is used in the repair and regeneration of nerve cells. Attenuation of the stress response: The body has intricate mechanisms by which it balances hormonal responses during and following periods of stress. When these mechanisms are disrupted, the ensuing imbalance can precipitate damage to brain and nervous system functions. Nutritropin contains several nutrients which assist in supporting these balancing mechanisms. Phosphatidylserine: Phosphatidylserine appears to help the body counterbalance excessive release of adrenocorticotrophic hormone (ACTH), adrenaline, and cortisol which are released in response to stress.

### **Metabolic Support Tablet**

Mitochondria are the cellular components responsible for generating the energy required to sustain life. Energy is produced from the flow of free electrons through the electron

transport chain produced by oxidative phosphorylation. Because mitochondria serve as the powerhouse of the cell, their proper functioning is essential to the integrity and optimal performance of the living organism. Cumulative oxidant stress is a major cause of mitochondrial dysfunction and is implicated as a principal underlying event in numerous degenerative diseases and age-related decline in physical and mental performance. Free radicals are normal byproducts of mitochondrial respiratory chain function. They can be damaging when produced in excessive amounts and not neutralized by naturally occurring antioxidants. Their accumulation may lead to peroxidation of membrane lipids, decline in oxidative phosphorylation, inefficient electron transport, and further increased oxidant flux. Repletion with specific nutrients necessary to support electron transport chain function and antioxidant protection appears to nutritionally support many age- and disease-associated deficits in mitochondrial function. Our approach to the formulation of Nutritropin included the following important points: (1) Completeness: Nutritropin provides several major beneficial nutrients which support key areas of mitochondrial function and protect against oxidant stress. (2) Scientifically sound: Only those nutrients that are backed by convincing scientific evidence from clinical, epidemiological, and experimental studies are included. (3) Quality: Nutritropin contains only the purest, high-quality nutrients that accurately reflect those used in scientific studies. (4) Potency: Each of the nutrients in Nutritropin are provided in physiologically meaningful amounts that are based on published scientific and/or clinical studies. Nutritropin is suitable for long-term health maintenance.

**Coenzyme Q10.** Coenzyme Q10 is a critical rate-limiting constituent of the mitochondrial electron transport chain, the biochemical pathway in cellular respiration from which ATP (adenosine triphosphate) and metabolic energy are derived. When mitochondrial energetics are inhibited, such as occurs during stress, degenerative disease, or aging, demand for coenzyme Q10 increases which must be met by dietary intake in order to optimize mitochondrial function. Mitochondria are exposed to high levels of oxidant stress (i.e. free radical damage) during cellular respiration. Coenzyme Q10 is one of the key antioxidant nutrients that protect mitochondrial membrane lipids and proteins and mitochondrial DNA from free radical-induced oxidative damage. It also regenerates and extends the action of vitamin E by reducing the  $\alpha$ -tocopherol radical, thus further protecting against membrane lipid peroxidation. **Acetyl-L-Carnitine (ALCAR).** This multifunctional nutrient facilitates the transport of fatty acids into mitochondria where they are oxidized, thus providing a major source of energy for the heart, brain, and skeletal muscle. ALCAR also stimulates the synthesis of cardiolipin which plays a crucial role in mitochondrial membrane structure and function. Cardiolipin plays a pivotal role in maintaining mitochondrial proton gradients, permeability of inner mitochondrial membrane to small molecules, and activity of mitochondrial membrane translocase proteins. Cardiolipin content declines with age and oxidative stress. **Alpha-Lipoic Acid.** Alpha-lipoic acid is a required coenzyme involved in the energy metabolism of proteins, carbohydrates, and fats. It is also a potent antioxidant that neutralizes free radicals generated both inside and outside of membranes. In addition

to its direct antioxidant activity, alpha-lipoic acid helps recycle vitamins C and E and stimulates the synthesis of glutathione. **Vitamin C and Vitamin E.** Vitamin C is a critical part of the glutathione/alpha-lipoic acid antioxidant pathway. Vitamin E protects against mitochondrial membrane lipid peroxidation, thereby preserving membrane stability and function. **N-Acetyl-L-Cysteine (NAC).** NAC is a nutrient precursor to glutathione and is effective at raising intracellular glutathione levels. Like alpha-lipoic acid, glutathione is an important antioxidant protector of mitochondrial membranes. **Magnesium Malate and Sodium Succinate.** Malic acid and succinic acid are key metabolic intermediates in the Krebs' citric acid cycle which is primarily responsible for the release of energy (as ATP) from food fuels. Magnesium is a requisite cofactor for numerous mitochondrial enzymes. **Creatine.** Creatine phosphate constitutes a major energy reserve by providing a readily available high-energy phosphate which in turn can be used to reform ATP from ADP. This prevents the rapid depletion of ATP that results from intense muscle activity or reduced mitochondrial function. **Vitamin B1 (Thiamin), Vitamin B2 (Riboflavin), and Niacinamide.** Thiamin, riboflavin and niacinamide stimulate the synthesis of NADH, FAD, and NAD respectively which play key roles in the functioning of the citric acid cycle. **Lecithin.** The various phosphatides contained in lecithin maintain cell membrane stability and fluidity and are precursors to the synthesis of cardiolipin. **Red Grape Extract.** The skins, seeds, and stems of red and black grapes are rich in dark red-violet flavonoids, the proanthocyanidins. Proanthocyanidins are among the most powerful free radical scavengers yet discovered. Proanthocyanidins appear to be especially effective in neutralizing highly reactive hydroxyl and singlet oxygen radicals. Both of these reactive oxygen species are generated during mitochondrial functioning.

#### **Immune Support Capsule**

The main purpose for using raw tissue concentrate material is because of its rich nutrient properties. The procedure is a concentrating process, not an extraction method. In an extraction method, some of the desirable nutrient factors would be lost. During the process of concentration (Lyophilization, which is a freeze drying technique) the raw tissue product is concentrated in the first solute phase, but never reaches the freezing point, otherwise the process would not work. As a result of low temperature, there is less molecular movement and, therefore, a minimum amount of loss, because of the probability of the nutrient factors' molecules reacting during processing is much lower. The excess fat surrounding the organ and connective tissue is surgically removed. However, the fat portion of normal healthy raw tissue concentrate material is valuable, as nutritional factors such as the oil or fat soluble vitamins A, D, E and K are present. Also, beneficial hormones and sterols which play a part in the body's production of certain hormones would be lost. In utilizing this method we do not use solvents of any nature, including aqueous, organic or chlorohydro-carbon solvent. There is no risk of harmful effects and no possibility of a residual reaction with naturally occurring enzymes. Lyophilization is as moisture-free as modern technology permits. All of these products are low allergenic and contain no yeast, corn,

wheat, soy protein, sugar, dairy/milk, starch, salt or solvent residues. Raw tissue concentrates are encapsulated in clear (non-colored, preservative free), hard gelatin capsules. Because raw tissue concentrates are so fragile relative to vitamins, minerals and other nutrients used in our products we chose to avoid the heat generated by compressing into tablets. We believe that these are the ultimate in raw tissue concentrate formulas and are grateful for the help of the many Physicians who have helped develop this unique approach. We offer this series of pure tissue concentrates for the allergic or hypersensitive patient, or otherwise when a pure tissue material is needed (no additives). Each contains only pure, lyophilized New Zealand tissue concentrates - free from colors, flavors, preservatives, fillers, or excipients of any kind, in pull-apart gelatin capsules for easy administration of the pure contents, if desired.

### **Stress Support Softgel**

Typical diets in developed countries deliver large amounts of saturated fatty acids and the polyunsaturated omega-6 linoleic and arachidonic acids and low levels of omega-3 fatty acids. Throughout evolution, humans were accustomed to diets providing roughly equal amounts of omega-6 and omega-3 fatty acids. However, during the last 200 years,

the ratio of dietary omega-6:omega-3 fatty acids increased from about 1:1 to 20-25:1. Leading health professionals now recommend ratios between 4:1 and 10:1. A healthy balance of dietary omega-6 and omega-3 fatty acids appears to be a prerequisite for normal immune function. Dietary linoleic acid (18:2 omega-6) is a precursor to arachidonic acid (20:4) which in turn is a precursor for pro-inflammatory prostaglandin E2 and leukotriene B4, and platelet aggregating thromboxane A2. Although GLA is a precursor of arachidonic acid, it also competes with arachidonic acid effectively, and may help downregulate the formation of excessive levels of pro-inflammatory 2-series prostaglandins and other immune mediators. The omega-3 fatty acids EPA and DHA provide a natural counterbalance to the effects of excess omega-6 fatty acids, because they serve as precursors for the anti-inflammatory prostaglandins E1 and E3, and decrease the formation of prostaglandin E2 and thromboxane A2. Thus, a balanced dietary intake of all of these fatty acids appears to be necessary to maintain a healthy immune response during normal inflammatory processes. The omega-3 fatty acids also have important functions for visual acuity and possibly in maintaining normal blood lipoprotein levels and the healthy metabolism of cholesterol.