

COMPLETE ENERGY

FOOD COMPOUND VITAMIN



Helps Combat Fatigue *and*
Increase Physical Strength

Ephedra and Stimulant Free
Enhances Endurance
Promotes Optimal Energy Levels



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Product Rationale
By Cynthia Pileggi



RIGHTFOODS™ COMPLETE ENERGY

Rationale

The fundamental reasons and logical basis used to formulate RIGHTFOODS™ Complete Energy™.

To Maximize a Specific Energy Response. This is Accomplished Through Careful Selection of Energy-Enhancing Components. Nutrient Utilization is assured by Providing The Ultimate Foods In A Broad Spectrum Formula.

COMPLETE ENERGY™ OVERVIEW

The Natural High of Being Alive - Complete Energy™ was created for active people who need to sustain high energy levels. We need energy for many reasons: health, sport, fitness, weight loss and maintenance; for fun, work, family needs, sexual activity, intellectual and mental occupations and to experience the natural high of being alive. The **Complete Energy™** formula targets nutritional enhancement and support for peak performance as well as for those leading a high energy lifestyle.

Sustained Energy and Increased Stamina – Complete Energy™ is a formulation of carefully selected, stimulant-free energy factors, such as Cordyceps mushroom and Amino Acid Chelated Minerals. All components are enhanced by a Full Color Spectrum Food Compounds. These compounds make **Complete Energy™** a potent and effective formulation for enhanced sustained athletic performance and a tangible increase in energy.

Improved Recovery Time and Adaptation to Environmental Changes – Complete Energy™ delivers superior adaptogens, including Chinese and Eleuthero Root, Ashwaganda and Schizandra Berry. These adaptogens enhance the body's ability to deal with and recover from stress. They are particularly valuable in supporting the body through environmental and biological changes such as temperature, altitude, pollution and jet lag and intense physical exercise.

Antioxidant Protection - Exercise and energetic activity increase the need for antioxidant protection. The inclusion of the antioxidants: Alpha Lipoic Acid, N-acetyl-l-cystine (NAC) and full spectrum grape extracts support performance and optimal health.

Immune Support - Optimal energy and performance are only possible if the immune system is functioning at its peak. Tonic herbal extracts including Ashwaganda, Astragalus and Reishi mushroom support the body's specific and non-specific immune response systems.

Complete Energy™ promotes the experience of optimal well-being.

THE IMPORTANCE OF FOOD AND COMPLETE ENERGY™

No Nutrient Works Without The Benefit Of Food.

The latest research indicates that the Food Compounds found in food are needed to deliver nutrients to the cells. When these factors naturally occur you have the most efficient delivery mechanism. Food is the most effective method of nutrient delivery.

Food Compounds™ Provide The Foods That Make The Vitamins And Minerals Work.

Recent science has proven that food is the key to nutrient delivery and utilization. Cutting edge scientific research on optimum health maintenance and preventative care indicates the undeniable importance of food. The broadest spectrum of Food Compounds from food, and the compounds found in food, such as Color, Food Compounds and Protein Chaperones™, are the most direct path to optimal health.

A Broad Range Of Supplemental Components.

The human body needs a broad spectrum of nutrients to maintain optimal health. Eating to stay healthy is not as easy as it seems. A study in the July 16, 1999 issue of *Science* reported that people living in the United States and other industrialized nations often fail to obtain recommended daily minimums of essential nutrients. This is despite the fact that meals contain a nearly endless variety of food.

Research reveals an enhanced physiological response is obtained from moderate amounts of a broad spectrum of foods and food compounds. A broad spectrum of moderate supplemental and nutritive components provides greater health benefits than large amounts of one isolated supplement fraction or the isolated active constituents of a plant.

Complete Energy™ supplies exceptional nutritional well being through a carefully selected combination of advanced antioxidants, food compound rich foods and energizing herb extracts. Powerful antioxidant protection and nutritive balance are provided for the entire body by revered tonic mushroom extracts and Resveratrol-rich grape extract and adaptogenic botanicals. Key herbal inclusions are Tribulus and Eleuthero Root, Panax Ginseng, Schizandra, Ashwaganda and Ginkgo Leaf extracts. Hydrilla verticillata is a nutrient rich green food providing a bountiful array of trace minerals, essential fatty acids, polysaccharides, amino acids, macro and micro nutrients.

Complete Energy™ contains 6 energy and antioxidant compounds, 5 Amino Acid Chelated Minerals, 12 concentrated Whole Herb Extracts, 2 Super Food Concentrates and a base of 22 Food Components that include all the classes of Food Compounds (Refer to Classes of Food Compound chart).

This broad range of components provides 49 individual minerals, whole herb extracts, superfoods, antioxidants and 1000's of beneficial food compounds.

Full Color Spectrum

RightFoods™ Complete Energy™ is the first Full Color Spectrum Food Compound formula. Our carefully crafted Full Color Spectrum Food Compound enhances bioavailability of the formula and provides a complete spectrum of naturally-occurring health supportive natural color pigments.

Worldwide research, including studies done by The National Cancer Institute, indicates the importance of including a full spectrum of colorful whole foods (red, blue, green, yellow, orange) in the daily diet. The color pigments in whole foods such as anthocyanins, carotenes, chlorophyll and flavonoids are recognized as being essential protective components of our diet. **RightFoods™ Complete Energy™** helps meet this challenge by including a daily dose of full color spectrum pigments. Scientific research indicates that color pigments in whole foods are important aspects of protective food compounds.

Food	Phyto-Nutrient Macro Nutrient	Color
Acerola Berry	Vitamin C	Red
Alfalfa	Chlorophyll	Green
Black Currant	Bioflavonoids	Purple
Barley Grass	Chlorophyll	Green
Beet Root	Betain	Red - Purple
Blueberry	Anthocyanin	Blue
Broccoli	Sulforaphane, Lutein	Green
Cabbage	Indole-3-Carbinol	Green
Carrot	Alpha & Beta Carotenes	Orange
Cranberry	Anthocyanin	Deep Red
Green Pepper	Bioflavonoids	Green
Lemon Peel	Bioflavonoids	Yellow
Orange Peel	Bioflavonoids	Orange
Rose Hips	Bioflavonoids	Red
Orange	Rutin	Orange
Tomato Concentrate	Lycopene	Red

Food Compounds, Protein Chaperones™ and Nutrient Delivery

Nobel Laureates have confirmed that **FOOD IS THE KEY TO NUTRIENT UTILIZATION.**

Nutrient utilization is dependent on Food Compounds and Protein Chaperones™.

Food Compounds

In 1937, Albert Szent-Györgyi was awarded the Nobel Prize for discovering and isolating a fraction of vitamin C known as ascorbic acid. Professor Szent-Györgyi discovered that vitamin C-rich concentrated whole food is more bioavailable than isolated ascorbic acid. This increase in bioavailability is due to the presence of enzymatic activity and important complex food factors known as the Food Compounds.

Protein Chaperones™

The 1999 Nobel Prize was awarded to Dr. Günter Blobel for his work that concluded “Each protein (chaperone) carries in its structure the information needed to specify its proper location in the cell.”

The Protein Chaperones™ are the key delivery mechanisms, the “addresses” and “zip codes”, that carry the nutrients to the specific sites within the cell, where they are utilized. These chaperones are necessary for nutrient utilization.

Research and identification of these Food Compounds has begun to unravel the complexity of food and its use within the body. The discovery of Protein Chaperones™ has led to an enhanced understanding of nutrient utilization. By definition, no isolated food fraction (vitamin or mineral) can provide the Food Compounds. The exact structure of food is unknown. There are at least 103,000 known food compounds (a tomato contains at least 10,000). One isolated fraction of a tomato, such as ascorbic acid, cannot be considered as beneficial as, or a substitute for, the whole tomato.

Classes of Food Compounds

Research into the factors that make up food is experiencing remarkable growth. This knowledge of the benefits of Food Compounds is expanding at an ever-increasing rate. Your body makes more kinds of chemicals than all the drug companies put together. 103,000 food factors have been isolated, and current estimates say the actual number may be in the millions. With increasing knowledge of the important health benefits of Food many scientists believe that Food Compounds will prove to be more important to supplementation than USP vitamins and minerals.

Since each of the Food Compounds exhibits different actions in the body, it is crucial that a broad and complete range of whole foods be included in the diet. When you consume a full range of the Food Factors you will benefit from what is known as a complete range of action. The complete range of Food Compounds working cohesively protects your body from the onset of numerous illnesses and diseases. The Food Compounds ultimately provide the foundation for optimum health. **RightFoods™ Complete Energy™** contains the Complete Active Range of food compounds.

Enhanced Utilization

Research shows that delivering vitamins and minerals with a Complete Active Range™ of whole foods enhances utilization. Nutrients cannot be delivered to the cells without specific messengers. These messengers naturally occur in whole foods. Ascorbic acid functions better when taken with vitamin C-rich foods, calcium functions better when taken with calcium-rich foods.

Food Compounds

Nutrients do not function alone, but rather in synergy with Food Compounds. These Food Compounds are shown to have powerful supportive effects on the physiology. Food Compounds are not produced by the body and must be supplied in our food.

Not Just Any Food - The Right Food

Food Compounds can be achieved by taking nutrients with a high quality meal. However, not just any meal will do. Foods in the meal must be rich in the same nutrients you are supplementing in order to enhance utilization. The necessary messengers (Protein Chaperones™) must naturally occur in the food to create enhanced utilization.

The Quality Meal Solution

Classes Of Food Compounds

Compounds	Foods	Benefits
Terpenes		
Carotenoids	Carrots	<ul style="list-style-type: none"> Alpha-carotene, a carotenoid food compound, was found to be 10 times more effective than beta-carotene at stopping cancer cells in a Japanese study. Lutein, a food compound, plays a crucial role in preventing age-related macular degeneration, the leading cause of blindness in the elderly.
Carotenoids	Laminaria	<ul style="list-style-type: none"> Research has shown that carotenoid food compounds in kelp may lower blood pressure and cholesterol. Studies in Japan have shown a direct relationship between the amount of seaweed (kelp) consumed and a reduction of colon or rectal cancer.
Limonoids	Lemons and Oranges	<ul style="list-style-type: none"> Researchers have found that the limonoids inhibit lung, skin, and stomach cancers. Increases production of enzymes that may help the body dispose of carcinogens.
Saponins	Alfalfa	<ul style="list-style-type: none"> Saponins, a food compound, in alfalfa and other legumes have shown to lower cholesterol by attaching onto the digestive tract and excreting it out of the body.
Lycopene	Tomato Extract	<ul style="list-style-type: none"> Lycopene appears to protect both heart and lungs against oxidative damage. Zeta-carotene, phytoene and phytofluene are called the three amigos. These food compounds are found together in tomatoes and appear to strengthen the activity of other carotenoids, and they are potent antioxidants.
Phenols		
Betacyanins	Beet	<ul style="list-style-type: none"> Studies at Howard University found beet extract to be an inhibitor of skin, lung, and liver tumors in <i>in vitro</i> studies. It is suspected that betanin, a food compound found in beets may be the reason. Betaine, another food compound found in beets plays a role in detoxifying homocysteine, an amino acid that is correlated with incidence of heart disease.
Tannins	Cranberry	<ul style="list-style-type: none"> Contains tannins, which protect the urinary tract from infections by adhering to the walls of the bladder and urethra. The anthocyanins appeared to reduce platelet clumping in lab tests.
Anthocyanins	Blueberries	<ul style="list-style-type: none"> Considered to have the highest antioxidant activity among all fresh foods. The reason may be because it contains high levels of two food compounds called chlorogenic acids and anthocyanins.
Flavonoids	Citrus	<ul style="list-style-type: none"> In one lab study researchers found that hesperetin, a food compound in citrus, slowed the replication of viruses. Researchers in Italy found that hesperetin reduces inflammation, lowers hypertension, increases "good" cholesterol (HDL), and lowers "bad" cholesterol (LDL).
Flavonoids	Acerola Berry and Rose Hips	<ul style="list-style-type: none"> Quercetin, a food compound in acerola berries, has been shown to be able to stop singlet oxygen free radicals. One study of 804 Dutch men found that the men who ate the most phenol food compound rich foods had 53% fewer fatal heart attacks than those who ate the least.
Isoflavones	Kudzu	<ul style="list-style-type: none"> Isoflavone food compounds in kudzu have shown to be a protective factor from certain types of cancer including breast and prostate cancers. An extract of kudzu had 100 times the antioxidant activity of vitamin E.
Amines		
Chlorophyll	Hydrilla	<ul style="list-style-type: none"> Research indicates that chlorophyll, an amine food compound, can latch onto carcinogens (cancer causers) in the digestive tract and prevent their absorption.
Enzymes	Papaya	<ul style="list-style-type: none"> Papaya helps digest food and is good for relieving symptoms of heartburn, indigestion, and inflammatory bowel disorders.
Polysaccharides		
Polysaccharides	Rice Bran	<ul style="list-style-type: none"> Food compounds in oat bran show the potential to raise the good cholesterol (HDL), while lowering bad cholesterol (LDL).
Polysaccharides	Shiitake	<ul style="list-style-type: none"> Food compounds in Shiitake have been shown to increase the cytotoxic (cancer cell destroying) activity of the immune system.
Pectin	Apple	<ul style="list-style-type: none"> Pectin, a food compound in apples, appears to reduce cholesterol by attaching to cholesterol in the stomach and delivering it out of the body.
Organosulfurs		
Indoles	Cabbage	<ul style="list-style-type: none"> In a study in China, researchers followed 18,000 men and found that men without any detectable levels of isothiocyanates, a food compound found in cabbage, had a 36% greater chance of developing lung cancer.
Sulforaphanes	Broccoli	<ul style="list-style-type: none"> French scientists found food compounds in broccoli help cause apoptosis (cancer cell death) and helped stop the development of tumors. Food compounds in broccoli help boost the production of the body's master antioxidant, glutathione.
Isothiocyanates	Kale	<ul style="list-style-type: none"> Considered to be a potent phase 2 enzyme enhancer. Studies support that sulforaphanes in kale are able to attach to free radicals and dispose of them. D-glucuric acid in kale helps detoxify a number of carcinogens including various nitrosamines.
Thiosulfonates	Onions	<ul style="list-style-type: none"> Organosulfur food compounds support a better ratio of good to bad cholesterol in the blood. Studies show that consumption of onions could raise beneficial cholesterol (HDL) by as much as 30%.
Lipids		
Omega-3	Flax	<ul style="list-style-type: none"> May reduce the risk of cardiovascular disease and improve mental and visual functions. Contains the food compound omega-3, which has proven to be beneficial against inflammation, immune system dysfunction, heart disease, and cancer.
Sterols	Pumpkin Seeds	<ul style="list-style-type: none"> Beta-sitosterol food compounds have been shown in studies to slow abnormal cell proliferation. Beta-sitosterol has also shown to lower cholesterol.
Isoprenoids	Spinach	<ul style="list-style-type: none"> Spinach is a good source of the isoprenoid compounds, tocotrienols (vitamin E), and co-enzyme Q10 which have been shown to help cardiovascular disease.
Organic Acids		
Ellagic Acid	Currants	<ul style="list-style-type: none"> Food compounds in currants have anti-inflammatory activity. Ellagic acid is able to regulate and increase the activity of enzymes that detoxify the body.
Coumaric Acid	Peppers	<ul style="list-style-type: none"> Contains the food compound p-coumaric acid, which has the ability to inhibit the formation of cancer-causing compounds such as nitrosamines.

Food Compounds: Each tablet provides the quality meal you need to utilize your vitamins and minerals. Our Food Compound formulas are 70 - 93% whole food. The **right** whole foods, combined in the correct ratio with vitamins and minerals.

ANTIOXIDANT FACTORS

Cordyceps (*Cordyceps sinensis*)

In the Fall of 1993, the women of China's track and field team broke the 10,000 meter record by an incredible 42 seconds. They went on to break several other records. Cordyceps mushroom was an essential aspect of their nutritional program.

Cordyceps mushroom is traditionally prized as a potent tonic having properties similar in action to Ginseng. It is revered for endurance, stamina, general vitality and is used for fatigue, debility, exhaustion, and building the body's natural resistance. In Traditional Chinese Medicine Cordyceps is considered balancing to both yin and yang. Human studies indicate that it enhances the chi of the liver, kidneys and lungs. It supports healthy blood and studies indicate Cordyceps stimulates immune response. Clinical research supports the use of Cordyceps to enhance sexual potency, sex drive and to support the gonads, increasing sperm production.

Cordyceps contains important energizing and balancing amino acids including: glutamic acid, tyrosine, and L-tryptophan.

Reishi (*Ganoderma lucidum*) (Ling-Zhi)

Reishi mushroom use can be traced back 4,000 years in China and Japan. Reishi is one of the most highly regarded of all herbs in Oriental Medicine. Considered the longevity or immortality elixir, Reishi has been called a divine herb or spirit plant. Reishi is considered a "fu zheng" tonic: a medicine that improves the ability of the body to maintain homeostasis by strengthening natural resistance and by improving general health." (ref. 2)

Reishi provides adaptogenic support to adrenal function and enhances overall energy levels. It is traditionally thought to increase mental and intellectual capacity and to have aphrodisiac properties.

Reishi is considered a superior tonic for the cardiovascular system and the liver, and in numerous studies it has demonstrated powerful anti-oxidant properties.

The mycelia of Reishi contains about 100 different triterpene compounds. The triterpenes, such as ganoderic acids, assist in lowering blood pressure and cholesterol, improving liver function and inhibiting histamine release. Several of Reishi's polysaccharides have antitumor and cardio-protective properties.

Alpha Lipoic Acid

Alpha lipoic acid is a coenzyme in the metabolism of sugars and other metabolic processes that converts food into energy. Alpha lipoic acid is a metabolic antioxidant with potent activity in both lipid and aqueous regions of the cells. It has the ability to quench both oxygen and nitrogen free radicals. Alpha lipoic acid also improves the effectiveness and longevity of other crucial antioxidants, it recycles vitamins C and E, and increases the L-glutathione levels in cells, thus supporting the body's immune response.

N-Acetyl-L-Cysteine (NAC)

NAC is a glutathione precursor with DNA protective functions. It enhances the functions and response of the immune system. NAC also provides the body with detoxifying protection and is important in the maintenance of healthy respiratory tissue.

Full Spectrum Grape Extract w/ 400 ppm Resveratrol

Full Spectrum Grape Extract is an important source of health supportive food compounds including phenolic compounds, flavonols, flavonoids and proanthocyanins. Proanthocyanins (PCOS) have demonstrated a wide range of pharmacological activity. They support intracellular levels of Vitamin C, decrease

capillary permeability, act as powerful antioxidants and function as free radical scavengers. Proanthocyanins help protect collagen which is responsible for maintaining the integrity of the skin, blood vessels, ligaments, tendons and cartilage.

The antioxidant activity of proanthocyanins is approximately 50 times greater than that of vitamin C and E. These protective flavonoids have the ability to function within cell membranes and are some of the few known antioxidants to protect against both fat and water-soluble free radicals. They stimulate cells to produce detoxifying enzymes, most notably glutathione peroxidase. In addition they are useful to support vision and cardiovascular health.

FOOD COMPOUNDS, AMINO ACID CHELATED MINERALS

If all the available forms of minerals were absorbed with equal efficiency, we could eat soil as the most direct source of nutrients. This soil source doesn't work because the minerals in the soil are in what is known as an "inorganic" form. Minerals are classified as organic only when they have been incorporated into living cells.

Most inorganic minerals are positively charged. The intestinal wall has a negative charge. The conflict between these charges causes the vast majority of minerals ingested in the inorganic form to be lost. Only a small percentage of inorganic minerals can be transformed within the body into the organic form and delivered to the bloodstream. For example, it is now generally accepted that only a small portion of iron, approximately 5 - 10%, is transformed and assimilated when it is ingested in the inorganic form. The rest has potential to be stored and create problems within the body.

Amino Acid Chelates

Since most forms of inorganic minerals are positively charged, the need arose to develop an organic mineral delivery system that is negatively charged. Amino acid chelates are an organic form which combines minerals with amino acids. This chelation process increases mineral assimilation by as much as 300%.

Some forms of minerals, such as citrates and gluconates, form weak organic complexes that rapidly ionize in the body. Evidence presently available indicates that these complexes do not significantly increase the utilization of minerals. In fact, a published study on intravenous (direct delivery to the blood) calcium gluconate delivery revealed no increase in utilization.* The organic structure that is best suited for mineral chelation is amino acids.

Amino Acid Chelate Utilization

It is theorized that Amino Acid Chelates enhance the body's ability to utilize the attached minerals through their affinity for other amino acids. These amino acids combine to form the Protein Chaperones™ that are necessary for the delivery of the mineral.

Amino Acid Chelate Safety

Another important aspect of the Amino Acid Chelate delivery system is the effect the amino acids have on the mineral ion. Inorganic minerals, when ionized, have the potential to fly around the body causing damage much like free radicals. When these inorganic minerals are attached to amino acids they are stabilized and become safe.

*The American Journal Of Medicine, Evaluation of Intravenous calcium as Therapy for Osteoporosis Volume 55; pg. 14, 1973.

The essential minerals, Calcium, Magnesium, Manganese and Potassium are important ingredients in this superior Completes Energy formula. All minerals are 100% Amino Acid Chelates for maximum absorption and efficacy. Replacing essential electrolyte minerals is vital and MegaFood uses select mineral forms which are more effective and safer than the less expensive forms found in many formulae.

Calcium: Calcium is vital to the structure of bones, contraction of muscles, enzyme activity, regulation of the heart beat, release of neurotransmitters and clotting of the blood. Studies indicate that calcium in food, in moderate potencies, is beneficial to the bones and the prevention of osteoporosis. Some studies

indicate that high calcium intake can contribute to calcium excretion and reduction of bone density.

Magnesium: Magnesium's primary function is enzyme activation, with participation in more than 300 enzymatic actions in the body. These actions include the enzymes responsible for the transcription, translation and replication of nucleic acids (RNA and DNA). RNA and DNA, which play a vital role in recovering from energetic activity. Magnesium plays a critical role in energy production through pathways of carbohydrate, lipid and protein metabolism and in the synthesis of ATP within the mitochondria. Magnesium is important for bone growth, the utilization of calcium, and the structure and function of the muscles, including the heart. Another important function of magnesium is maintaining the balance of the sodium and potassium pump. This pump and its maintenance of electrolyte balance is vital to all cellular function during strenuous activity.

Selenium: Selenium functions as a component of the vital antioxidant enzyme glutathione peroxidase. There are many forms of glutathione peroxidase working to protect at the cellular level. Glutathione peroxidase also has a function in both Phase I and Phase II liver detoxifying systems. Selenium is a vital component of these processes. Vitamin E and Selenium work together to prevent the lipid peroxidation (free radical damage) of cells and for proper oxygenation in the blood.

Manganese: Manganese is important in the functioning of numerous enzyme systems including blood sugar control, thyroid hormones, SOD and energy production. A manganese deficiency can lead to inhibited bone and cartilage growth, increasing the potential for injury during strenuous activity.

GTF Chromium: GTF Chromium is important to blood sugar control mechanisms. Proper blood sugar levels are required for maximum energy production and output. GTF Chromium works with insulin in facilitating the uptake of glucose into the cells. This glucose uptake facilitates the body's ability to maintain proper weight. It also helps with the regulation of cholesterol and triglyceride levels. GTF Chromium facilitates sustained energy levels.

Potassium: Potassium's role in exercise can not be taken lightly as it is vital to the heartbeat, muscle contraction and regulation of nutrient transfer to the cells. Potassium is an essential element that functions in the maintenance of electrolyte and osmosis balance. It works to offset the excessive negative charges that are the result of strenuous exercise and maintains the organic constituents within the cell. It is a component in the production of ATP. Potassium also plays a role in the excitability of the nerves and muscles. Potassium is beneficial in the prevention and treatment of hypertension and cardiovascular disease as well as supporting the muscles, kidneys and adrenals. These are all important systems involved in maintaining optimum energy levels.

Boron: Boron is important in the maintenance of bone and joint function. It reduces excretion of calcium and magnesium. It functions in the production of the active form of Vitamin D3 which helps maintain the muscular-skeletal system and prevent injury. Boron also plays an important role in the appropriate activity of estrogen and testosterone hormones. Hormone balance is essential for a healthy active lifestyle.

WHOLE HERB EXTRACTS

“Whole plant extracts, artfully and scientifically prepared, provide the most complete range of the plant's chemistry and synergy and therefore exercise the most holistic influence on the physiology.”

Extracts: In most cases using extracts is the best means of herbal delivery. If the herb is not extracted the active constituents can be locked within the cell walls. The more concentrated the extract, the more active constituents are available for delivery. For example, 8:1 means eight pounds of whole herb are extracted and concentrated to equal one pound of whole herb extract. In this case the value of the extract is at least eight times greater than the value of the non-extracted herb. Using these potent whole herb extracts is important for maximum efficacy of the herbs. Extraction creates a huge advantage.

Whole Plant: Our herbal extracts are created with an understanding of the advantages of the whole plant verses an isolated fraction of the plant. Research indicates that the whole plant extract, when compared to the

isolated fraction, delivers superior results. This whole plant advantage is due to the synergistic effect of the thousands of phyto-nutrients contained in the plant.

The delivery mechanism of whole herbs with their synergistic food compounds intact creates the same advantage as the delivery of whole food nutrients.

Whole plant extracts are safer than isolated fractions of plants. Examination of the US Pharmacopeia reveals that isolated fractions of plants are often the basis for therapeutic drugs, many of which exhibit side effects. With few exceptions, whole herb extracts do not exhibit these side effects.

Tribulus terrestris: Tribulus has traditionally been an important part of the supplement program of the Soviet Union's winning Olympic teams. Tribulus is a nutritive herb that has been safely used in Oriental and Ayurvedic healing traditions for over a thousand years. It is naturally rich in potassium which supports muscle building and kidney jing. Potassium's role in exercise can not be taken lightly as it is vital to the heartbeat, muscle contraction and regulation of nutrient transfer to the cells.

Tribulus is rich in saponins, particularly steroid saponins of the furostanol type. It can create an anabolic condition by enhancing testosterone. Tribulus' phyto-hormonal properties increase the hormones that naturally help build body mass. It has been used traditionally to enhance androgen production in both men and women. Tribulus is supportive to the cardiovascular system and is considered a cardiogenic. Its properties enhance spermatogenesis, LH (luteinizing hormone), FSH (follicle stimulating hormone) and libido.

Eleuthero Root (*Eleutherococcus senticosus*): Eleuthero root as a primary adaptogen and antioxidant supports the adrenal glands, the body's stress response, immune system and endocrine system, spleen, liver and thymus gland. The subject of numerous studies, this rejuvenative herb is revered internationally for stamina, oxygen metabolism, enhancing longevity, memory and improving general health. Eleuthero root possesses greater antioxidant activity than the vitamins C and E. It supports adjustment to high altitudes, athletic performance and stamina. Research demonstrates the beneficial effects of Eleuthero root on modulation of blood pressure and cholesterol levels. Eleuthero root is a superior tonic, with the greatest benefits experienced after continuous use.

Panax Ginseng Root, Chinese Ginseng: Panax Ginseng is famed among plants, having been used for centuries as a revitalizing tonic, adaptogen and panacea and possesses an incredibly broad range of nutritional and therapeutic properties. Panax supports the adrenal glands, cardiovascular system, immune system, spermatogenesis and liver function. It is included in **Complete Energy™** for its energizing and adaptogenic support. Panax enhances the body's ability to cope with stress including the stress factors associated with physical exercise. It also helps with altitude, temperature adjustment and proper blood sugar balance.

Schizandra Berry (*Schisandra chinensis*) Wu Wei Tza: Schizandra is the revered five flavored herb. It is considered both a primary superior herb and food in Traditional Chinese Medicine and is mentioned in ancient Chinese texts for its actions supporting the liver and kidney energies.

Schizandra's actions include: antioxidant, adaptogen, antihepatotoxic, digestive tonic and urinary tonic. Schizandra contains polyphenols and lignans, compounds which contribute to superior antioxidant activity, free radical scavenging, adrenal, liver, and digestive support.

Schizandra's antioxidant activity has been shown in research to surpass the antioxidant activity of Vitamin E, Vitamin C and Beta-Carotene.

Schizandra's adaptogenic action brought it to the forefront when considering botanicals for use in this formula. As an adaptogen Schizandra helps build non-specific resistance, supports and restores immune function, and supports adrenal function.

As a balanced digestive tonic, Schizandra delivers an additional benefit that is important to sustaining the body as a whole.

Schizandra contributes to hydration of the tissues by rejuvenating the kidneys and promoting the produc-

tion of body fluids. It is used for increasing endurance and stamina while reducing recovery time from physical activity.

Other benefits include support of vision, adaptation to darkness and, by calming the spirit also helping with insomnia.

Schizandra strengthens reflexes and the nervous system and is widely used for nervous system exhaustion, fatigue and stress.

Schizandra is useful for memory enhancement and depression.

This amazing and flavorful berry is also a favorite sexual tonic and aphrodisiac for women and men. It supports sexual fluids and stamina.

Ashwagandha Root (*Withania somnifera*): Ashwagandha is an adaptogenic herb that has been revered in the Ayurvedic healing tradition for over 2,500 years. It is used as a vitalizer, tonic, rejuvenative, aphrodisiac, nervine, sedative, astringent and antihepatotoxic. It increases the body's non-specific resistance to disease. Ashwagandha is traditionally used for general strengthening and recovery.

Ashwagandha is a native herb in India, primarily a vegetarian country and is considered the perfect energy herb for vegetarians, providing the stamina often associated with meat consumption. Ashwagandha enhances physical performance with decreased stress response. A true support herb, Ashwagandha assists the body in rejuvenation, rebuilding and restoring the nervous system, musculature, and general vitality.

It is included in this formula for its adaptogenic support and rejuvenative action on the muscles, bones, connective tissue and nerves.

In the Ayurvedic tradition it is used for the clarity and calming of the mind.

Ashwagandha has been used in the treatment of Chronic Fatigue Syndrome, and is considered by some as a primary herb for this condition.

Its constituents include: Withaferin A, one of the several withanolides (steroidal lactones), amino acids, including proline, valine, alanine, glycine, cystine, cysteine, glutamic acid, aspartic acid, tannins, and flavonoids.

Astragalus Root (*Astragalus membranaceus*) (*Astragalus spp.*): Astragalus is an important adaptogen that supports adrenal function, altitude adjustment, enhances endurance and immune system response. It is a true blood builder enhancing overall energy. Actions of astragalus also include: tonic, antihepatotoxic and antioxidant.

This revered blood builder enhances red blood cell formation in the bone marrow therefore enhancing oxygen delivery to the cell.

Supportive to the cardiovascular system, lungs and digestion, this primary Chi tonic is safe for everyone. Astragalus contains the major compounds: polysaccharides (astragalus I, II, III), saponins (astramembrannin I and II) and betaine. The polysaccharides support both specific and non-specific immune response by strengthening adrenal and pituitary gland activity.

Ginger Root (*Zingiber officinale*): Ginger is traditionally known as the delivery herb, enhancing the effectiveness of other herbs and increasing nutrient bioavailability.

A powerful antioxidant with adaptogenic properties, ginger aids peripheral circulation. It is balancing to the prostaglandins which are hormone-like substances that regulate inflammation.

Research indicates ginger is a digestive aid rich in proteolytic enzyme activity that increases bile production.

It is also thought to be an aphrodisiac.

Licorice Root (*Glycyrrhiza glabra*): In traditional Chinese medicine Licorice root is called the great "harmonizer" or "peacemaker" because it is believed that it harmonizes the actions of all other herbs. It

holds a prominent place in Chinese herbology, being the most often used herb in this system of treatment. Licorice is also among the most widely studied of all herbal medicines.

Licorice has a marked effect on endocrine function and is a highly supportive tonic for the adrenal glands. It increases the production of cortisol, DHEA, and aldosterone supporting the adrenal cortex. Licorice contains triterpenes which are metabolized in the body into molecules similar in structure to adrenal cortex hormones. These components are able to bind to the glucocorticoid receptors on cells and exert glucocorticoid-like effects.

Licorice's actions include: adrenal agent, anti-inflammatory, anti-spasmodic, anti-hepatotoxic, demulcent, expectorant, anti-viral, estrogenic, anti-allergenic, anticancer and antibacterial.

There are cautions for licorice use when hypertension is present; however, in the cases where licorice caused edema, copious amounts were consumed, ranging from 2-7 grams daily.

Licorice contains triterpenes, flavonoids, isoflavonols, phytosterols, lignans, amino acids, coumarins, glycyrrhetic acid and, its major active compound, glycyrrhizin.

Horsetail Herb (*Equisetum arvense*): Horsetail is rich in supportive silica for the bones and nourishing glycosides. The nutritional support of connective tissue is a focus of Horsetail's use in this formula.

Fo-Ti (*Polygonum multiflorum*): Fo-Ti is China's most renowned longevity herb and is considered a rejuvenator, energizer and sexual tonic. Fo-Ti has been used in Ayurvedic traditions for strengthening the bones, blood, muscles, tendons, ligaments and nervous systems. Traditionally used to retain vitality, research also shows Fo-Ti to be a cardiogenic, hypotensive, cholesterol regulating and to have protective effects on the arteries, reducing lipid adhesion to artery membranes.

Ginkgo Leaf (*Ginkgo biloba* L.): Research shows Ginkgo to have powerful antioxidant activity, particularly for prevention of lipid peroxidation of the brain cells. It has been demonstrated to have beneficial effects on memory retention and cerebral insufficiency. Ginkgo affects glucose and oxygen levels in the brain with beneficial results. It is an important medicinal plant for general circulation. Ginkgo is rich in the flavone glycosides.

Dandelion Root & Leaf (*Taraxacum officinale*): Dandelion is one of the richest herbal source of potassium and is a native tonic used for the liver and urinary tract. It is rich in the antioxidant nutrients and carotenoids such as lutein and violaxanthin.

Hydrilla verticillata 50:1: A fresh water, rooted algae, Hydrilla has the natural ability to conserve and store its own vital energy. When consumed, this aquatic green food supplies an abundance of natural energy. It is especially rich in Calcium, with abundant trace minerals, polysaccharides, amino acids, micro and macro nutrients. Hydrilla supplies antioxidant and detoxifying activity and is important to the proper disintegration of the tablets.

Alfalfa (*Medicago sativa*): Alfalfa has a high mineral content and is especially rich in calcium, magnesium and trace minerals including boron, as well as vitamins K, C, A, E, folic acid and other B vitamins, flavonoids, phytoestrogens and chlorophyll. Phyto-estrogenic compounds include isoflavones, coumestrol, genistein and formononetin; research indicates that it stimulates estrogen production. Alfalfa nourishes the blood and liver and is indicated as useful in cholesterol reduction. It is also important to tablet disintegration.

THE RIGHTFOODS™ COMPLETE ENERGY™ FOOD COMPOUNDS is the carrier that enhances the delivery of the nutrients in each formula. Research supports that vitamins and minerals combined with a Food Compounds are more effective than isolated nutrients.

Food Compounds: Alfalfa, Apple Pectin Fiber, Beet Root, Cabbage, Carrot, Flax Seed, Lemon Peel, Orange Peel, Green Papaya 3:1, Rice Bran, Shiitake 3:1, Acerola Berry Concentrate 4:1, Kudzu 10:1, Broccoli 5:1, Tomato Concentrate 4:1, Rose Hips Concentrate 4:1, Black Currant Concentrate 3:1, Cranberry Extract 25:1, Green Pepper Extract 5:1, Blueberry Concentrate 6:1, Kale, Onion 3:1, Pumpkin Seeds 4:1, Spinach 3:1, Quercetin, Rutin.

Carrot Concentrate

The richest common food source of health supportive pro-vitamin-A carotenes. These carotenes are recognized for their antioxidant activity.

The Healing Power of Foods Michael T. Murray, N.D. pg. 109-110, 354-355

Heinerman's New Encyclopedia of Fruits & Vegetables, John Heinerman pg. 82-89

Beet Root Concentrate

A food source of iron, silica and other nutrients which is traditionally used to support oxygen carrying properties of the blood.

The Healing Power of Foods Michael T. Murray, N.D. pg. 56, 104, 353

Heinerman's New Encyclopedia of Fruits & Vegetables, John Heinerman pg. 38-42

Tomato Concentrate

Provides vitamin C, niacin, phosphorous, and carotenes, especially the highly active antioxidant carotenoid lycopene. Contributes to cholesterol management, cardiovascular and prostate health.

Lycopene: Chemistry, biology, and implications for human health and disease. Clinton S. K. *Nutr. Rev.* 1998;56:35-51

The Healing Power of Foods Michael T. Murray, N.D. pg. 362-363

Heinerman's New Encyclopedia of Fruits & Vegetables, John Heinerman pg. 454-461

Broccoli Concentrate

Rich in the compounds known as indoles (indole-3-carbinol and sulforaphane). Also contains carotenes and many other nutrients. Research indicates that indoles may increase the elimination from the body of a form of estrogen linked to breast cancer.

The Healing Power of Foods, Michael T. Murray, N.D. pg. 106-107, 186, 353

Heinerman's New Encyclopedia of Fruits & Vegetables, John Heinerman pg. 66-68

Cabbage Concentrate

Contains Vitamin C, potassium, and other nutrients. One of the richest vegetable sources of food compounds which research indicates as having anti-cancer properties: Dithiolthiones, Glucosinolates, Indoles, Isothiocyanates, Coumarins, and Phenols. Useful in treatment of peptic ulcers.

The Healing Power of Foods Michael T. Murray, N.D. pg. 354-355, 340-341, 56

Heinerman's New Encyclopedia of Fruits & Vegetables, John Heinerman pg. 74-78

Orange Peel

Considered an excellent digestive tonic. Has properties which enhance Chi tonics such as Ginseng.

Planetary Herbology, Michael Tierra pg. 105, 106, 142

Chinese Herbal Medicine Materia Medica, Dan Bensky, Andrew Gamble

Acerola Berry Concentrate

A type of cherry that is a rich source of vitamin C and food compounds.

Nutrition Almanac Revised Addition, Lavon J. Dunne ©1979

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