What if you could select some of the most effective and innovative nutritional formulations in the market today and place them in YOUR vitamin line? Well, that’s exactly what we did with our new Wellness Works By Design products. Our team of PCCA member nutritional consultants selected existing products in the marketplace and designed others to create a more innovative product line. I invite you to flip through these pages and become acquainted with our newest additions to the Wellness Works line, Wellness Works By Design.

John Preckshot, RPh, CCN
Director, Wellness Works Nutrition
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800-331-2498

These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent disease.
DESCRIPTION
5-HTP capsules contain 75 mg of natural L-5-hydroxytryptophan (5-HTP) extracted from seeds of the Griffonia plant, together with 7.5 mg of Vitamin B-6 (as pyridoxine-5-phosphate).

FUNCTIONS
Serotonin, an important brain neurotransmitter, is key in the regulation of appetite, mood, and melatonin production. The presence of serotonin in the brain is associated with a balanced emotional state. This is achieved in part by decreasing the activity of certain excitatory hormones, including dopamine and noradrenaline. Serotonin also acts as a satiety signal in the brain, thereby naturally regulating food intake. Additionally, as a precursor of melatonin, serotonin is involved in regulating sleep patterns.

Serotonin is unable to cross the blood-brain barrier and is therefore synthesized in the brain. Tryptophan, an essential amino acid, is a precursor for the synthesis of serotonin. Tryptophan crosses the blood-brain barrier and is converted to L-5-hydroxytryptophan, which in turn is converted into serotonin. Unfortunately, tryptophan faces many obstacles during its journey into brain tissue. First, dietary intake directly affects body levels of tryptophan, as the body cannot endogenously produce it. High protein diets often provide greater amounts of tryptophan, yet higher carbohydrate diets appear to enhance tryptophan uptake into the brain. Secondly, tryptophan must compete with other amino acids for entry into the brain. Finally, tryptophan may be taken up by other tissues for protein or niacin synthesis, and thus is not exclusively for use by the brain.

As a metabolic intermediate in the conversion of tryptophan into serotonin, 5-HTP offers a number of advantages over tryptophan. 5-HTP is derived naturally from the seeds of the Griffonia plant, unlike tryptophan which is produced synthetically or through bacterial fermentation. 5-HTP crosses into the brain more readily than tryptophan as it is able to cross the blood-brain barrier without competition for uptake. 5-HTP is significantly more effective than tryptophan; one 50 mg capsule of 5-HTP is roughly equivalent to 500 mg of tryptophan. Finally, research studies have shown 5-HTP to be safe at levels as high as 900 mg. As a result, 5-HTP is a safe and effective means of increasing brain serotonin levels.

INDICATIONS
5-HTP capsules may be a useful nutritional supplement for individuals wishing to obtain the benefits of this well-documented plant extract to increase their levels of brain serotonin.

FORMULA
1 capsule contains:
L-5-hydroxytryptophan .................. 75 mg
Pyridoxal-5-Phosphate (P-5-P) ............. 7.5 mg
Proprietary Blend (L-tyrosine, L-Glutamine) ...... 50 mg

SUGGESTED USE
As a dietary supplement, adults take one (1) capsule daily with meals, or as directed by a healthcare professional. Vitamin B6 is necessary for the conversion of 5-HTP to serotonin. Thus, an adequate intake of vitamin B6 is necessary to derive optimal benefits of 5-HTP.

SIDE EFFECTS
No adverse effects have been reported.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES

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

By Design

DESCRIPTION

Active Essentials For Men is a targeted nutritional formula conveniently dose-packaged, providing comprehensive nutritional support. The formula includes Albion® chelated minerals; activated B vitamins; Quatrefolic®, Oxygen Radical Absorbance Capacity (ORAC) botanicals; and fresh, pure, third-party assayed fish oils. Calcium is in the form of di-calcium malate and microcrystalline hydroxyapatite concentrate (MCHC).

FUNCTIONS

The average diet can be lacking in complete nutrition due to modern food-production techniques, poor food choices, and nutrient-depleting preparation methods.[1-3] Combine these with the toll of lifestyle stress and oxidizing chemicals—found in foods and the environment—and it becomes essential to ensure comprehensive foundation nutrition for the body. To achieve this, each cellophane-wrapped package of Active Essentials For Men contains the following Company Name formulas:

Multivitamin Formula w/o Iron: This high-quality, hypoallergenic, proprietary multivitamin/mineral blend is provided in vegetable capsules and not only features activated vitamin co-factors and patented Albion® chelated mineral complexes, but it also provides folate as a blend of folic acid and 5-MTHF. The form of 5-MTHF is Quatrefolic®, which is proven to have greater stability, solubility, and bioavailability over the calcium salt forms of 5-MTHF. The balanced nutrient profile in Multivitamin Formula w/o Iron supports vitamin/mineral synergistic activity; antioxidant protection with vitamins C and E, selenium, and carotenoids; and Phase 1 detoxification.

Antioxidant Formula: This innovative blend of oxidation-fighting botanicals contains RosemarinX™, derived from rosemary, and Berr-X™, derived from a variety of berries. The technique known as ORAC measures antioxidant capacity, and units of an ORAC value are expressed as micromoles Trolox Equivalents per gram of a substance. Consuming an average of five to nine servings per day of a variety of fruits and vegetables yields 6000 Trolox Equivalents. This same amount is supplied by just two capsules (1000 mg) of Oraxinol.[8]

Omega-3 Formula: Each enteric-coated softgel contains 1.2 g of fish oil, delivering 360 mg eicosapentaenoic acid (EPA) and 240 mg docosahexaenoic acid (DHA). A rigorous, proprietary, temperature-controlled/vacuum technology is used for purification and manufacturing. Stringent verification processes reduce any potential health risks which may otherwise result from the oil’s exposure to rancid fats, toxins, bacteria, molds, yeasts, or very high levels of fat-soluble vitamins, such as vitamin A. Wellness Works is proud to guarantee the quality, potency, purity, stability, and disintegration time of Omega Oils. In addition to complying with a host of federal and state regulations, our supplier also agrees to adhere to voluntary guidelines for manufacturing and to a code of ethics as members of the Council for Responsible Nutrition. Research suggests that consumption of EPA and DHA omega-3 fatty acids may support cardiovascular health.[5] Studies have also shown that fish oils may support a healthy response to inflammation, promote optimal joint function[6], and support overall brain and nervous system function.[7]

INDICATIONS

Active Essentials For Men may be a useful dietary supplement for those who wish to improve their nutrient intake and receive antioxidant support.

FORMULA [WW #10262]

1 Packet Contains:

| Vitamin A | 3750 I.U. |
| Vitamin C | 125 mg |
| Vitamin D3 | 100 I.U. |
| Vitamin E | 100 I.U. |
| Vitamin B1 | 10 mg |
| Vitamin B2 | 10 mg |
| Vitamin B3 | 32 mg |

Omega-3 Formula:

- Each enteric-coated softgel contains 1.2 g of fish oil, delivering:
  - 360 mg eicosapentaenoic acid (EPA)
  - 240 mg docosahexaenoic acid (DHA)

- A rigorous, proprietary, temperature-controlled/vacuum technology is used for purification and manufacturing.

- Stringent verification processes reduce any potential health risks which may otherwise result from the oil’s exposure to rancid fats, toxins, bacteria, molds, yeasts, or very high levels of fat-soluble vitamins, such as vitamin A.

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- Studies have also shown that fish oils may support a healthy response to inflammation, promote optimal joint function, and support overall brain and nervous system function.
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AdreBoost-G
By Design

DESCRIPTION
AdreBoost-G contains key nutrients to support healthy adrenal function including: a bovine glandular blend, vitamin C, vitamin B6, and pantothenic acid.

FUNCTIONS

Adrenal Blend: The bovine adrenal blend is formulated to support adrenal, hypothalamus, and pituitary function by stimulating the release of specific hormones that are necessary for optimum endocrine health. The adrenal, hypothalamus, and pituitary glands directly influence each other to support the stress response, immune system, mood, emotions, and several other body processes. This is also known as the hypothalamic-pituitary-adrenal axis (HPA axis). An HPA axis that is not functioning correctly can influence mood, stress, and overall health, as hormone sensitivity decreases. The hormones released by the HPA axis have been shown to effect physical energy, as cortisol and ACTH hormones were measured in 30 patients with chronic exhaustion ailments. Researchers found the irregular release of cortisol and ACTH hormones had an effect on health and physical energy.

Pantothenic Acid: Pantothenic Acid, also known as vitamin B5, is essential to several metabolic functions, including the synthesis of steroid hormones, neurotransmitters, and lipids. Prolonged amounts of stress can affect the release of stress hormones, such as an elevation in cortisol levels. To support the adrenals and normal hormone function, the body needs B-vitamins, including pantothenic acid. Pantothenic acid can help alleviate systemic effects of stress.

B vitamins are essential to energy production; specifically, pantothenic acid is a precursor to important enzymes that provide optimal cellular energy to help your adrenals function normally. Furthermore, B vitamins inhibit the development of oxidative stress that can lead to accelerated aging. An animal study reviewed the effects of pantothenic acid on the adrenal glands, finding that supplementation stimulated adrenal sensitivity to release corticosterone and progesterone hormones that improve adrenal function.

Rhodiola Rosea: Native to eastern Siberia, Rhodiola Rosea has been used in Russian traditional medicine for centuries, as it is known for its adaptogenic activity (increases the body’s resistance to stress and aids mental function). Rhodiola’s adaptogenic activity relieves mental stress. The extract can prevent behavioral and physiological changes that are often associated with chronic stress. Furthermore, a single dose of rhodiola has been shown to stimulate the central nervous system to balance mood and behavior.

One study observed the effects of rhodiola extract on 56 healthy physicians that were suffering from fatigue during night shifts. After two weeks of rhodiola supplementation, the study found a significant improvement in energy levels among individuals taking the extract. Researchers suggested rhodiola can decrease fatigue during stressful conditions. Another study recruited students to take rhodiola for 20 days during an examination period. Results indicated students taking rhodiola had more physical and mental endurance, when compared to the placebo group.

A six-week study recruited individuals with mood ailments to take rhodiola extract, finding mood, sleep, and emotions improved in subjects taking rhodiola extract. Similarly, rhodiola may alleviate chronic anxiety, as a ten-week study demonstrated it significantly reduced anxiety among individuals taking the extract. Furthermore, the stress-relieving effects have been extended to stress-related cardiovascular ailments, as rhodiola can inhibit cardiovascular damage.

Vitamin C: The adrenal gland contains high amounts of vitamin C, which are depleted at a rapid rate, when the body is under stress. Vitamin C deficiencies can affect adrenal gland function, because the adrenal cortex is less protected against lipid peroxidation and free radical damage. Researchers examined the antioxidant effects of vitamin C, beta-carotene, and vitamin E supplementation among professional basketball players to understand their role on exercise stress markers. The study measured stress markers before supplementation, before training, after training and 24 hours after training. Supplementation
decreased free radical formation and aided stress markers among athletes participating in strenuous physical exercise. Another study found that vitamin C supplementation stimulated circulating cortisol, adrenaline, and anti-inflammatory properties in ultra-marathon runners to support prolonged durations of stress.

**Zinc:** Zinc is required for energy metabolism, as it is involved in several metabolic processes. Zinc levels can decline after strenuous physical stress leading to muscle fatigue and decreased immunity. Additionally, a zinc deficiency can increase anxiety-like behavior, as a two-week zinc deprivation study found the deficiency increased corticosterone and basal free calcium levels.

Eighty healthy male volunteers were recruited to take a supplement containing zinc, magnesium, and calcium, or a placebo, for 28 days to see how supplementation affected well-being. Subjects taking the vitamin supplement had a significant reduction in anxiety and perceived stress, when compared to the placebo group. Furthermore, subjects in the treatment group experienced more energy and mental concentration.

**INDICATIONS**
AdreBoost-G is formulated to support energy and overall adrenal health.

**FORMULA** (WWW #10241)

2 Capsules Contain:

- Vitamin A Acetate ........................................... 5,000 I.U.
- Vitamin C (Ascorbic Acid) .................................. 300 mg
- Thiamin HCl ...................................................... 3 mg
- Riboflavin USP .................................................. 2 mg
- Vitamin B-6 (Pyridoxine HCl) ............................. 50 mg
- Pantothenic Acid (d-Calcium Pantothenate) ....... 60 mg
- Zinc (Amino Acid Chelate) ................................. 15 mg
- Adrenal Concentrate (bovine) ......................... 300 mg
- Spleen Concentrate (bovine) ......................... 50 mg
- Other Ingredients: Cellulose, Magnesium Stearate

**SUGGESTED USE**
As a dietary supplement, adults take 4 capsules daily with meals, or as directed by a healthcare professional.

**SIDE EFFECTS**
The maximum safe dosages of the nutrients in this formula have not been determined for children, pregnant or nursing women, or those with severe liver or kidney disease. As with all supplement regimens, please consult your healthcare professional prior to use.

**Adrenal Blend** – There are no known adverse reactions with proper supplementation.

**Pantothenic Acid** – Diarrhea may occur in large doses.

**Vitamin C** – Stomach upset including nausea, diarrhea, abdominal cramps may occur in large doses due to unabsorbed vitamin C passing through the intestines.

**Zinc** – High doses of zinc can lead to copper deficiency or cause stomach upset.

**Drug Interactions:**
Consult a physician before taking NUTRA Adrenal, as the following key nutrients may interact with certain medications.

**Adrenal Blend** – There are no known interactions with proper supplementation.

**Pantothenic Acid** – There are no known interactions with proper supplementation.

**Vitamin C** – Aluminum-containing antacids, Aspirin (impairs vitamin C), Chemotherapeutic agents, Estrogen, or Indinavir.

**Zinc** – Antibiotics block zinc absorption

**STORAGE**
Store in a cool, dry place, away from direct light. Keep out of reach of children.

**REFERENCES**

- Perfumi M, Mattioli L. Adaptogenic and central nervous system effects of single doses of 3% rosavin and 1% salidroside Rhodiola rosea L. extract in mice. Phytother Res. 2007; 21(1): 37–43.


Patak P, Willenberg HS, Bornstein SR. Vitamin C is an important cofactor for both adrenal cortex and adrenal medulla. Endocrinol Res. 2004 Nov; 30(4): 871-875.


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AdreBoost-NG

By Design

DESCRIPTION
AdreBoost-NG is a combination of nutrients and herbs that support healthy adrenal function during periods of physical and emotional stress. The adaptogenic herbs (Eleuthero, Rhodiola rosea, Ashwagandha) are standardized to ensure a consistent dose of active compounds.

FUNCTIONS
The adrenal glands produce hormones that support the biochemical and physiological mechanisms for dealing with mental and physical stress, and also secrete chemicals involved in nutrient metabolism and energy production. Chronic anxiety, nervous tension and other types of stress may lead to an excess production of cortisol, a hormone involved in the stress response. Excess intake of stimulants such as caffeine and sugar can exacerbate stress and lead to adrenal “fatigue.” The constant stimulation of the adrenal glands may eventually result in an abnormal stress response, low energy and poor immune function.

The adrenal glands rely on a variety of nutrients to support their function and produce the hormones that support the response to physical and emotional stress. These include tyrosine, which is required for the production of the adrenal hormones epinephrine (adrenaline) and norepinephrine (noradrenaline). Vitamin B6 helps to protect the body from the negative effects of glucocorticoid hormones such as cortisol. Pantothenic acid and vitamin C have a supporting role in maintaining healthy adrenal gland function. The adaptogenic herbs Rhodiola rosea, ashwagandha, and Eleuthero as well as the herbs Licorice root, astragalus, gotu kola and schizandra all provide a synergistic effect by supporting normal, healthy adrenal function, supporting healthy cortisol and energy levels, managing the negative effects of stress on the body and contributing to an overall feeling of well-being.

INDICATIONS
AdreBoost-NG may be a useful dietary supplement for those experiencing physical or emotional long-term stress or participating in physical activity. AdreBoost-NG should be taken consistently for maximum benefit.

FORMULA [WW #10244]
2 Vegetarian Capsules Contain:
Vitamin C (as ascorbic acid)................................. 60 mg
Vitamin B-6 (as pyridoxine HCL)....................... 25 mg
Pantothenic Acid (d-calcium pantothenate)........... 100 mg
L-Tyrosine .................................................. 500 mg
Rhodiola Rosea................................................. 200 mg
(standardized to 3% [6 mg] rosavins and 1% [2mg] salidrosides)
Eleuthero...................................................... 100 mg
(Eleutherococcus senticosus) root extract
(standardized to 0.5% [0.5 mg] eleutherosides)
Ashwagandha.................................................. 150 mg
(Withania somnifera) root extract (standardized
to 1.5% [2.5 mg] withanolides)
Choline (as choline bitartrate)............................ 50 mg
Ginger (Zingiber officinale)............................... 50 mg
Licorice (Glycyrrhiza glabra)............................. 40 mg
Astragalus (Astragalus membranaceus).............. 45 mg
Gotu Kola (Centella asiatica)......................... 25 mg
Schizandra (Schizandra chinensis).................... 20 mg
Other Ingredients: Capsules (cellulose, water), magnesium stearate and silica.

Contains No: sugar, salt, dairy, yeast, soy, wheat, gluten, corn, preservatives, artificial colors or flavors.

SUGGESTED USE
As a dietary supplement, adults take two (2) vegetarian capsules daily at mealtime, or as directed by a healthcare professional.

SIDE EFFECTS
Please consult with a healthcare professional before taking AdreBoost-NG if you are have high blood pressure or are currently taking medications to treat depression or anxiety or taking a class of drugs known as monoamine oxidase inhibitors (MAOI). Tyrosine may interact with thyroid medications.

storage
Store in a cool, dry place, away from direct light. Keep out of reach of children.
REFERENCES


Betaine HCl 648 mg

By Design

DESCRIPTION
Betaine Hydrochloride is a powdered dietary supplement of hydrochloric acid supplied in two-piece gelatin capsules.

FUNCTIONS
The breakdown of dietary protein begins in the stomach where gastric hydrochloric acid assumes an important role in protein digestion and other processes.

Hydrochloric acid acts as a catalyst in the activation of pepsin from pepsinogen. Active pepsin is a proteolytic enzyme which splits large protein molecules into smaller polypeptides. Additionally, hydrochloric acid acts directly on dietary proteins by loosening up their macromolecular structure (denaturing).

Gastric hydrochloric acid also helps reduce poorly available trivalent ferric iron into more soluble and absorbable divalent ferrous iron.

Another physiological role of gastric hydrochloric acid is to protect the body from food-borne enteric infections through its antibacterial properties.

INDICATIONS
Betaine Hydrochloride capsules may be a useful nutritional adjunct for individuals who wish to supplement their diets with hydrochloric acid.

FORMULA (WW #10232)
1 Capsule Contains:
Betaine HCl .......................................................... 648 mg

SUGGESTED USE
One capsule just before or during each meal, or as directed by physician.

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

SIDE EFFECTS
No adverse effects have been reported.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES
Cinnamon Complex

**DESCRIPTION**

Cinnamon Complex is formulated to support insulin sensitivity and optimize blood sugar levels. It contains Cinnulin PFTM, a safe, patented 100% aqueous cinnamon (Cinnamomom cassia) extract[1] plus three other relevant, high quality, standardized herbs. Alpha Lipoic Acid and a highly bio-available, Albion®-Chelated form of chromium are also present.

**FUNCTIONS**

**Cinnulin PF™** contains the bio-active, water-soluble polyphenol polymers (“Type-A polymers”) that inhibit PTP-1, preventing inactivation of insulin receptors. They affect protein phosphorylation-dephosphorylation reactions regulating glucose metabolism signal transduction pathways.[2] These Polymers are antioxidants and increase insulin-dependent glucose metabolism by roughly 20 times.[3] After 40 days of consuming either one, three or six grams of cinnamon per day, subjects had significant reductions in blood glucose (18-29%) and blood lipids(7-30%).[4]

**American Ginseng** (Panax quinquefolius) possesses sulfonylurea-like activity.[5] This herb does not lower blood sugar unless it contains a significant quantity of ginsenosides.[6] The American ginseng in Product Name is a standardized 12% (ginsenosides) extract.

**Gymnema Leaf Extract** (Gymnema sylvestre) is a water-soluble extract made from the leaves of Gymnema sylvestre and standardized to 25% gymnemic acid. This form does not decrease iron absorption as other forms may.[7] Gymnema can enhance the effects of insulin and oral hypoglycemic agents by reducing glucose absorption in the intestine, stimulating pancreatic beta cell growth and possibly increasing endogenous insulin secretion. Gymnema may also reduce serum lipids.[8]

**Green Tea Polyphenols** (Camelia sinensis) protect erythrocytes from oxidative stress, possibly reducing risk of late complications of diabetes.[9] In research studies EGCG enhanced insulin activity,[10] protected the pancreatic cells by reducing inflammatory cytokines (e.g. IL-1beta), and reduced IFN-gamma-induced nitric oxide production. It affected genes that inhibit activation of NF-kappaB[11] and reduced the level of messenger RNA for the hepatic gluconeogenic enzymes.[12]

**Alpha Lipoic Acid** is a potent antioxidant that acts by multiple mechanisms, both physiologically and pharmacologically, in the treatment of diabetic peripheral neuropathy and hypertension.[13,14] In higher doses, alpha lipoic acid supports insulin regulation of blood sugar levels.

**Chromium:** The Albion® patented process that combines chromium with glycinate and niacin increases its bioavailability and improves insulin sensitivity.[15] Individuals with Type 2 diabetes tend to have lower blood chromium levels. Chromium enhances the metabolic action of insulin and may reduce some of the risk factors for cardiovascular disease, especially in overweight individuals.

**INDICATIONS**

Cinnamon Complex may be a useful dietary supplement for those who wish to support insulin sensitivity and optimize blood sugar levels.

**FORMULA** [WW #10258]

2 Capsules Contain:

Chromium......................................................... 200 mg
(as TRAACS® chromium nicotinate glycinate chelate)
American Ginseng (Panax quinquefolius)............ 375 mg
[12% ginsenosides] (whole plant)
Alpha Lipoic Acid .................................. 200 mg
Green Tea Leaf Extract (Camellia sinensis).... 200 mg
[60% catechins; 40% EGCG]
Gymnema Leaf Extract (Gymnema sylvestre)..... 200 mg
[25% gymnemic acids]
CinSulin®‡ (Cinnamomum cassia)............... 200 mg
[20:1 Aqueous Bark Extract]

Other Ingredients: HPMC (capsule), cellulose, stearic acid, magnesium stearate, silica.

‡CinSulin® is registered trademark of Tang-An Medical Co., Ltd. U.S. Patent #6,200,569.
SUGGESTED USE
As a dietary supplement, adults take 2 capsules daily, or as directed by a healthcare professional.

SIDE EFFECTS
No adverse effects have been reported.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES
CoEnzyme-B

**DESCRIPTION**
CoEnzyme-B provides the “activated” form of the B-vitamins for enhanced bioavailability to assist in the many biochemical pathways requiring these nutrients.

**FUNCTIONS**
B-vitamins are required for numerous biochemical and physiological processes including the metabolism of macronutrients (carbohydrates, fats and proteins) to make energy, support of healthy nervous system function and for cardiovascular function. Typically B-vitamins are used as needed and any excess is excreted. This makes it very important to consume these essential nutrients on a daily basis. Once B-vitamins are consumed they cannot perform their necessary functions until they are converted into their active coenzyme forms. Aging, chronic disease and other factors may limit one’s ability to convert B-vitamins into their coenzyme forms. CoEnzyme-B provides the active, coenzymated forms of the essential B-vitamins that do not require metabolic conversion, and therefore may offer an advantage to certain populations such as the elderly, those with malabsorption issues, metabolic diseases such as diabetes, and many others.

**INDICATIONS**
CoEnzyme-B may be a useful dietary supplement for those who wish to increase their intake of the B-vitamins in a readily absorbable and more bioavailable form.

**FORMULA** *(WWW #10245)*

<table>
<thead>
<tr>
<th>1 Vegetarian Capsule Contains:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin B-1 (as thiamin HCL)</td>
<td>50 mg</td>
</tr>
<tr>
<td>Vitamin B-2 (as riboflavin)</td>
<td>50 mg</td>
</tr>
<tr>
<td>Niacin (as niacinamide)</td>
<td>50 mg</td>
</tr>
<tr>
<td>Vitamin B-6 (as pyridoxine HCl)</td>
<td>50 mcg</td>
</tr>
<tr>
<td>Vitamin B-12 (as cyanocobalamin)</td>
<td>50 mcg</td>
</tr>
<tr>
<td>Folate (as folic acid)</td>
<td>800 mcg</td>
</tr>
<tr>
<td>Biotin</td>
<td>200 mcg</td>
</tr>
<tr>
<td>Pantothenic Acid (as d-calcium pantothenate)</td>
<td>50 mg</td>
</tr>
<tr>
<td>Choline (as choline bitartrate)</td>
<td>25 mg</td>
</tr>
<tr>
<td>Inositol</td>
<td>25 mg</td>
</tr>
<tr>
<td>PABA</td>
<td>25 mg</td>
</tr>
<tr>
<td>Cocarboxylase (coenzyme vitamin B-1)</td>
<td>5 mg</td>
</tr>
<tr>
<td>Riboflavin-5-phosphate (coenzyme vitamin B-2)</td>
<td>5 mg</td>
</tr>
<tr>
<td>Pantethine (coenzyme vitamin B-5)</td>
<td>5 mg</td>
</tr>
<tr>
<td>Pyridoxal-5-phosphate (coenzyme vitamin B-6)</td>
<td>5 mg</td>
</tr>
<tr>
<td>Methylcobalamin (coenzyme vitamin B-12)</td>
<td>25 mcg</td>
</tr>
<tr>
<td>Dibencozide (coenzyme vitamin B-12)</td>
<td>25 mcg</td>
</tr>
</tbody>
</table>

**SUGGESTED USE**
Adults take one (1) vegetarian capsule daily or as directed by a healthcare professional.

**SIDE EFFECTS**
Generally well tolerated. Upset stomach may result from consuming concentrated forms of B-vitamins. Please consult with a healthcare professional before taking CoEnzyme B if you are pregnant or breastfeeding, or on medications that may interact with B-vitamins.

**STORAGE**
Store in a cool, dry place, away from direct light. Keep out of reach of children.

Contains No Added sugar, salt, dairy, yeast, wheat, corn, soy, preservatives, artificial colors or flavors.

**REFERENCES**


DESCRIPTION
Turmeric is a traditional Indian culinary spice and Ayurvedic medicine that has been utilized for a wide array of medicinal purposes. Its most common traditional use has been to promote proper digestion. Even the German Commission E Monograph on turmeric describes it as an approved medicinal herb for dyspeptic (indigestion) conditions. In the last decade, turmeric has received tremendous attention and numerous clinical studies have confirmed its health-promoting effects and specifically supporting a healthy inflammatory response.

FUNCTIONS
Antioxidant nutrients are necessary to protect the body from the destructive effects of harmful molecules that cause oxidation. Because these molecules are highly reactive, they are called reactive species and have a strong tendency to grab an electron from other molecules and damage delicate cellular structures, unsaturated fatty acids and even DNA. Thus, the role of antioxidants is to prevent this damage by balancing the pro-oxidative/anti-oxidative states of the body. Oxidative stress is a term given when oxidation outpaces the body’s ability to neutralize free radicals and is a key factor in the inflammatory process. These reactive radicals and oxidants may injure cells and tissue directly via oxidative degradation as well as injure cells indirectly by altering signaling processes that exist within the tissue to be pro-inflammatory. Antioxidants may help play a role in regulating inflammation by neutralizing free radicals and contributing to a normal and healthy inflammatory response.

Turmeric contains a group of compounds called curcuminoids that have shown to possess potent antioxidant properties. Curcumin is the main yellow constituent of turmeric and most biologically active as a potent antioxidant. Curcuminoids have also been shown to inhibit the metabolism of arachidonic acid (a pro-inflammatory fatty acid) by inhibiting cyclooxygenase-2 (COX-2) and lipoxygenase enzymes. Collectively, turmeric’s ability to support a healthy inflammatory response is a function of its antioxidant properties and inhibitory effect on mechanisms that support inflammation. Curcumin Complex features Sabinsa’s Curcumin C3 Complex®, made up of three main chemical compounds: curcumin, demethoxycurcumin and bisdemethoxycurcumin, collectively known as curcuminoids.

Curcumin C3 Complex was the only turmeric chosen by the National Cancer Institute (NCI) for clinical studies.

INDICATIONS
Curcumin Complex may be a useful dietary supplement for those who wish to help support a healthy, normal inflammatory response.

FORMULA (WW #10251)
1 Vegetarian Capsule Contains:
Turmeric Root Extract ........................................ 500 mg (Curcuma longa) (standardized to 95% [475 mg] curcuminoids)
Other Ingredients: Capsule (cellulose, water), magnesium stearate and silica.

Contains No sugar, salt, dairy, yeast, wheat, gluten, corn, soy, preservatives, artificial colors or flavors.

SUGGESTED USE
As a dietary supplement, adults take one (1) vegetarian capsule daily, or as directed by a healthcare professional.

SIDE EFFECTS
Generally regarded as safe. Please consult with a healthcare professional before taking Curcumin Complex if you have gallstones or complications associated with the gallbladder or are taking blood thinners. Curcumin Complex may inhibit cytochrome P450 enzyme and affect the metabolism of certain medications.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES


Volak LP, Ghirmai S, Cashman JR, Court MH. Curcuminoids inhibit multiple human cytochromes P450, UDP-glucuronosyltransferase, and sulfotransferase enzymes, whereas piperine is a relatively selective CYP3A4 inhibitor. Drug Metab Dispos. 2008.
DIM Enhanced

By Design / with Curcumin, Green Tea and Wasabia

DESCRIPTION
DIM Enhanced is a microencapsulated form of diindolylmethane, with curcumin, green tea, and wasabia designed to support healthy hormone balance and immune health. Microencapsulated DIM by BioResponse® is a patented, absorption-enhancing formulation to ensure proper assimilation by the body.

FUNCTIONS

Diindolylmethane
During the body’s natural detoxification processes, potentially detrimental molecules such as hormone metabolites, alcohol, drugs and air pollutants are removed from the blood stream via the liver. Healthy hormone detoxification is a crucial part of the normal functioning of the immune system.

Diindolylmethane (DIM) is one molecule known for the supportive role it plays in stimulating natural detoxification enzymes and supporting normal hormone metabolism. As a natural component derived from indole-3-carbinole and cruciferous vegetables, DIM has shown in studies to support the 2-hydroxylation instead of 16-hydroxylation of certain estrogen metabolites. This favors the production of 2-hydroxyostrone over the more deleterious 16-hydroxyostrone. Other studies indicate that diindolylmethane may play important roles in inducing apoptosis and supporting the body’s normal angiogenic balance, especially in regards to healthy breast, cervical and prostate cells.

Microencapsulated DIM is the only diindolylmethane with proven absorption and activity demonstrated in independently performed clinical studies. BioResponse DIM contains pure DIM, microencapsulated in particles complexed with a vitamin E derivative and phospholipids to aid absorption from our intestinal tract. The patented formulation process for making BioResponse DIM creates microparticles of DIM, emulsifies the DIM with vitamin E and phospholipids, and captures these complexes through a drying process in larger particles of pure food starch. The result is a sustained-release, dry powder which re-dissolves easily after oral consumption.

Green Tea
Scientists have identified numerous phytochemicals including polyphenols, methylxanthines, flavonoids, and triterpenoid saponins in green tea. The polyphenols contained in tea, specifically the catechins, appear to provide the primary health promoting benefits associated with green tea consumption. Catechin, epicatechin, epigallocatechin (EGC), and most notably EGCG, epigallocatechin gallate act as antioxidants and support immune function and liver detoxification. Additionally, in vitro, these nutrients have been shown to support healthy cell growth and division.

MERIVA® Curcumin
Studies have shown that curcumin, a naturally occurring biologically active group of compounds from Curcuma longa (turmeric), can function as efficient antioxidants and can help regulate the body’s normal response to inflammatory processes. Curcumin can also play an important role in maintaining healthy angiogenic balance and help to support the body’s detoxification processes. Since curcumin exhibits poor oral absorption in the body, we have chosen a highly bioavailable curcumin called MERIVA. Pharmacokinetic comparison studies have shown MERIVA to have up to a 20-fold improvement in bioavailability versus the standard 95% turmeric extracts due to proprietary PHYTOSOME technology which increases hydrolytic stability.

Wasabia Japonica
Wasabia, a member of the cruciferous vegetable family, contains long chain isothiocyanates (ITCs). These ITCs are believed to be 10-25 times more potent in the detoxification process than most ITCs found in cruciferous vegetables. These long chain ITCs are unique to wasabia and are not commonly found in other cruciferous vegetables.

INDICATIONS
DIM® Enhanced may be a useful dietary supplement for individuals wishing to support healthy estrogen detoxification, hormone balance and immune support.
**FORMULA** (WW #10229)

1 Vegetarian Capsule Contains:

MERIVA® Curcumin Phytosome ................... 125 mg  
(Curcuma longa extract, rhizome/Phosphatidylcholine [soy] complex)

Green tea extract (leaf) ...................... 200 mg  
(std. to 95% polyphenols and 45% EGCG)

BioResponse DIM® complex ...................... 125 mg  
(complex of starch, diindolylmethane,d-alpha tocopheryl succinate, phosphatidylcholine [soy] and silica),  
(std. to contain 25% diindolylmethane)

Wasabia japonica (rhizome) .................. 50 mg  
(containing at least 1,200 mcg of isothiocyanates as allyl ITC,  
3-butenyl ITC, and 4-pentyl ITC)

*BioResponse DIM® is a trademark of BioResponse, L.L.C., Boulder.*  
*Meriva® is a registered trademark of Indena S.p.A, Milano.*

**SUGGESTED USE**

Adults take 1-2 capsules daily with food, in divided doses,  
or as directed by your healthcare professional.

Avoid this product if pregnant or lactating. If taking  
prescription blood thinners such as Coumadin (warfarin)  
consult your physician prior to use.

**MICROENCAPSULATED DIM® DOISING GUIDELINES**

Women: 100-200 mg BioResponse DIM (25-50 mg DIM)  
Men: 200-400 mg BioResponse DIM (50-100 mg DIM)

**SIDE EFFECTS**

Harmless changes in urine color may occur if less than  
recommended daily water intake is consumed.

**STORAGE**

Store in a cool, dry place, away from direct light. Keep  
out of reach of children.

**REFERENCES**

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Y, Hayashi K, Nakagawa Y, Horio F, Uchida K, Osawa T. Antiplatelet  
and anticancer isothiocyanates in Japanese domestic horseradish, wasabi.  
FOS Powder

DESCRIPTION
FOS Powder supplies 3,000 mg of fructooligosaccharides per serving.

FUNCTIONS
Prebiotics are carbohydrates that have short molecular chains. They function as non-digestible ingredients that can positively affect selected groups of beneficial intestinal microflora, such as lactobacillus. While probiotics merely add beneficial microflora, prebiotics affect the intestinal environment so that beneficial colonies of microflora can flourish. By aiding the beneficial microflora's survival, pathogenic microflora can have a decreased chance of survival.

INDICATIONS
FOS powder may be a useful dietary supplement for individuals wishing to support their gastrointestinal system.

FORMULA (WW #10246)
1 Tablespoon Contains:
Calories................................................................. 20
Total Carbohydrates.............................................. 4 gm
  Dietary Fiber .................................................. 3 gm
  Soluble Fiber.................................................... 3 gm
Sodium.................................................................... 20 mg
Ingredients: Partially Hydrolyzed Guar Gum (natural fiber). Contains No sugar, salt, dairy, yeast wheat, gluten, corn, soy, preservatives, artificial colors or flavors.

SUGGESTED USE
As a dietary supplement, adults mix one (1) tablespoon into 4 oz. or more of liquid or soft food. Stir until mixed. Do not use in carbonated beverages.

SIDE EFFECTS
No adverse effects have been reported.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES

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

DESCRIPTION
Glutamine Plus four focused ingredients – glutamine, arabinogalactan, aloe vera and deglycyrhized licorice – to optimally support gastrointestinal health including growth of the mucosal lining, promotion of gut microflora and beneficial short-chain fatty acid production.

FUNCTIONS
L-Glutamine, the most abundant free form amino acid in the body, is very important for maintaining gastrointestinal and stimulated immune cell functioning. It is an important transporter of nitrogen (and carbon) in the body and therefore, is vital in wound healing. Although glutamine can be synthesized by the intestinal mucosa, during periods of physiological stress when needs cannot likely be met by the body alone, gut epithelial atrophy, ulceration and even necrosis are possible.[1] L-glutamine is metabolized to ammonia and glutamate.

Arabinogalactan, a polysaccharide derived from the Larch tree, contributes fermentable fiber to this formula in addition to having immuno-stimulatory properties. It minimizes ammonia synthesis and absorption, enhances production of short chain fatty acids and increases the gut microflora population.[2]

Licorice Root Extract 10:1 (deglycyrrhized) is a concentrated extract that has been processed to remove glycyrrhizin, thus eliminating any risk of licorice-associated side effects. It is anti-inflammatory, antispasmodic and has laxative and soothing effects. Aspirin-induced mucosal damage has been shown to be reduced by administration of deglycyrhizined licorice.[3]

Aloe Leaf Extract (standardized to 50% polysaccharides), used for thousands of years, is perhaps most well-known for healing of damaged epithelial tissue, including the bowel lining. Despite the lack of scientific published studies there is anecdotal evidence to suggest that aloe vera helps inflammatory conditions of the gastrointestinal tract. In some individuals it may increase G.I. transit time, improve protein digestion and absorption, increase stool bulk and normalize stool bacteria where high levels of yeasts previously existed.[4] The aloe extract used in Glutamine Plus does not have a laxative effect because the bitter principles have been removed.

INDICATIONS
Glutamine Plus may be a useful dietary supplement for individuals wishing to support gastrointestinal health.

FORMULA (WW #10260)
1 Scoop (5.6 grams) Contains:
L-Glutamine................................................. 3,000 mg
Arabinogalactan............................................ 2,000 mg
Licorice Root Extract 10:1 (deglycyrrhizined). 500 mg
Aloe Leaf Extract........................................... 100 mg
(Standardized to 50% [50 mg] polysaccharides)

Other Ingredients: Stevia.

SUGGESTED USE
Mix one scoop in 2-4 oz. water one to three times daily or as directed by a healthcare professional.

SIDE EFFECTS
No adverse effects have been reported.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES
1. L-Glutamine. www.naturaldatabase.com {accessed 4.3.07}
2. Arabinogalactan. www.naturaldatabase.com {accessed 4.3.07}
Indole-3-Carbinol

By Design

DESCRIPTION
Supplies significant amounts of indole-3-carbinol (I-3-C) in a proprietary blend of cruciferous vegetables for healthy hormone balance and cellular health.

FUNCTIONS
Indole-3-carbinol is a member of the class of sulfur-containing chemicals called glucosinolates, phytochemicals found in high amounts in cruciferous vegetables such as broccoli, cauliflower, and Brussels sprouts. Indole-3-carbinol functions as an antioxidant, stimulates natural detoxification enzymes and supports normal hormone metabolism. † Furthermore, I-3-C supports the function of healthy breast and cervical cells. † In recent years, I-3-C has shown a promising ability to support prostate cell metabolism.

In the stomach, indole 3-carbinol must be broken down into its active metabolite diindolylmethane, another indole compound that also has similar health benefits. Indole-3-carbinol supports healthy estrogen metabolism by promoting a healthy ratio of weak estrogens (2-hydroxyestone metabolites or 2-OHE) to strong estrogens (16 alpha-hydroxyestrone metabolites or 16 alpha-OHE) in favor of the weak, less potent estrogens. Indole-3-carbinol also induces phase II enzymes including glutathione S-transferase (GST). Cruciferous vegetables like broccoli and cauliflower offer protective sulforaphane compounds known for their ability to induce protective detoxifying enzymes.

INDICATIONS
Indole-3-Carbinol may be a useful dietary supplement for individuals wishing to supplement their diet with indole-3-carbinol to support healthy estrogen metabolism.

FORMULA (WW #10230)

1 Vegetarian Capsule Contains:
Indole-3-Carbinol…………………………………… 200 mg
Proprietary Blend…………………………………… 100 mg
   Standardized Broccoli, Cauliflower and Brussels Sprout

SUGGESTED USE
Adults take 1-2 capsules daily in divided doses with meals or as directed by a healthcare professional.

WARNING: Women who are breastfeeding or pregnant should not take this product.

SIDE EFFECTS
No adverse side effects reported.

The conversion of I-3-C to its active metabolites requires stomach acid. Therefore, antacids, H2 blockers, and proton-pump inhibitors may impede its effectiveness.

STORAGE
Refrigeration is suggested for this product.
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES
Bonnesen C, Eggleston IM, Hayes JD. Dietary indoles and isothiocyanates that are generated from cruciferous vegetables can both stimulate apoptosis and confer protection against DNA damage in human colon cell lines. Cancer Res 2001 Aug 15;61(16):6120-30.
Inositol Powder

DESCRIPTION
Inositol Powder provides 500 milligrams per serving of pure inositol powder. Its slightly sweet flavor makes it easy to mix into water and drinks.

FUNCTIONS
Although inositol has been referred to as “vitamin B-8,” it is not classified as a vitamin because humans can synthesize it from glucose. Other names include hexahydroxycyclohexane or cyclohexanhexol. It is a component of every cellular membrane in the body and particularly concentrated in the heart and brain. It is specifically found in the phospholipids of cellular membranes and plays critical roles in several biochemical pathways, including acting as cellular mediators of signal transduction, metabolic regulation, and growth. It contributes to the function of nerves and muscles and helps the liver process fats. There is some evidence to suggest that inositol may help support a healthy mood for those people suffering from panic disorders or for people under stress.

INDICATIONS
Inositol Powder is a useful dietary supplement for maintaining normal cellular processes as well as helping support a healthy mood for those suffering from panic disorder or for people under stress.

FORMULA (WW #10256)
One 1/4-Teaspoon Contains:
Inositol ................................................................. 500 mg
Contains no added sugar, salt, dairy, yeast, wheat, soy, preservatives, artificial colors or flavors.

SUGGESTED USE
As a dietary supplement, adults take 1/4 teaspoon in eight (8) ounces of water or juice daily, or as directed by a healthcare professional.

SIDE EFFECTS
Please consult with a healthcare professional before taking Inositol if you are taking medications for depression or mood disorders.

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

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES
Ipriflavone

300 mg / Bone Health / By Design

DESCRIPTION
Ipriflavone capsules contain 300 mg of ipriflavone, a type of isoflavone. Isoflavones are one of many classes of flavonoids, phytochemicals widely recognized and studied for their numerous health benefits.

FUNCTIONS
Ipriflavone helps promote bone density by inhibiting bone resorption. Numerous studies of postmenopausal women and individuals whose bones are showing signs of demineralization have investigated the benefits of ipriflavone on bone health. Laboratory and clinical studies have documented ipriflavone’s positive effect on bone density.

Experts agree that ipriflavone appears to directly inhibit osteoclast activity, thereby decreasing bone resorption. Osteoclasts and osteoblasts are two primary types of bone cells. Osteoblasts, the more exterior cells, are responsible for bone mineralization. Osteoclasts, found beneath the osteoblasts, are responsible for bone resorption. When calcium levels in the blood drop, the osteoblasts change shape, allowing the osteoclasts to become exposed and release calcium from the bones to the rest of the body.

Scientists suspect ipriflavone may also stimulate osteoblast activity. Since osteoblasts are responsible for laying down new bone, an increase in osteoblast activity would result in increased bone mineralization. This suggests Ipriflavone may not only inhibit the breakdown of existing bone, but also encourage the formation of new bone.

Bone is constantly turning over in a continuous process of formation and resorption. During certain stages of life, the balance between bone mineralization and resorption may be tipped. During childhood and adolescence, while the body is growing, bone mineralization generally exceeds bone resorption. Once one reaches peak bone mass, sometime between the age of 20 and 30, bone formation slows down. For many, bone resorption begins to prevail over bone formation, beginning the cycle of progressive, age-associated bone demineralization.

In women, bone loss is generally accelerated following menopause. The decline in estrogen levels associated with menopause appears to put women at increased risk for declining bone density and osteoporosis.

Osteoporosis affects a large proportion of postmenopausal women and the elderly in developed countries. For some women, exogenous hormones provide some continued protection against accelerated, progressive, postmenopausal bone loss. Currently, there are few effective options for those women who are unable to, or choose not to take hormone replacement therapy (HRT).

Ipriflavone, together with adequate calcium, vitamin D, and other key nutrients in bone health, offers nonestrogenic protection against excessive bone resorption. Unlike other well-known isoflavones, such as genistein found in soy foods, ipriflavone does not have estrogenic activity. Ipriflavone can be safely used in conjunction with natural phytoestrogens or with HRT. Further, ipriflavone provides a positive effect on bone health in women for whom hormone therapies are contraindicated.

INDICATIONS
Ipriflavone may be a beneficial dietary supplement for postmenopausal women, those at risk for osteoporosis, or anyone concerned about bone health.

FORMULA (WW #10236)
1 Capsule Contains
Ipriflavone .................................................. 300 mg

SUGGESTED USE
One capsule twice daily as a dietary supplement, or as directed by a physician.

SIDE EFFECTS
No adverse effects have been reported.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.
These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.
L-Methylfolate

1,000 mcg / By Design

DESCRIPTION

L-Methylfolate supplies 1,000 mcg of biologically active folate called (6S) 5-methyltetrahydrofolate (5-MTHF).

FUNCTIONS

Folate is a water-soluble essential B vitamin found in many foods, including leafy green vegetables, citrus fruits and beans. Research has established that supplementation with folate before and during the first two months of pregnancy can support proper neurological development in the fetus. Additionally, folate plays a key role in the metabolism of homocysteine. Homocysteine is a sulfur containing amino acid that is created in the body from methionine, an essential amino acid derived solely from dietary intake. High plasma levels of homocysteine appear to injure the vasculature, impairing the functional abilities of endothelial and smooth muscle cells.

Metafolin® folate is a patented, natural form of (6S) 5-methyltetrahydrofolate (5-MTHF). 5-MTHF is the naturally occurring, predominant form of folate commonly found in cells and is essential for overall health, as it participates as a cofactor in a reaction that involves the remethylation of homocysteine to methionine. Unlike synthetic folic acid, 5-MTHF can be used directly by the body, without the need for an additional conversion via the enzyme 5,10-methylenetetrahydrofolate reductase (MTHFR). In certain populations, the body’s ability to convert folic acid to 5-MTHF by use of this enzyme may be compromised due to genetic differences.

Metafolin contains only the S isomer of 5-MTHF and has been shown to be the only form of folate to be able to cross the blood-brain barrier. Metafolin does not appear to mask the anemia associated with a vitamin B12 deficiency and presents no risk of an accumulation of unmetabolized folic acid in the body.

INDICATIONS

L-Methylfolate is a useful dietary supplement for those individuals that prefer a high dose active form of folic acid called (6S) 5-MTHF.

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

FORMULA [WW #10238]

1 Tablet Contains:

Folate (as L-methylfolate, Metafolin®)..........1,000 mcg
Other ingredients: Cellulose, dicalcium phosphate, croscarmellose sodium, vegetable stearate and silica

SUGGESTED USE

Adults take 1 tablet daily or as directed by a healthcare professional.

SIDE EFFECTS

Doses of 5 mg or higher per day can cause abdominal cramps, diarrhea, and rash.

STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES


Male Virility Support

By Design

DESCRIPTION
Male Virility Support is a proprietary male formula that has been synergized with an herbal blend to support the processes involved in promoting a healthy male sex drive, energy and stamina.

FUNCTIONS
Male virility and sexual health depend upon several factors. Sex drive is influenced by the normal, healthy production of hormones such as testosterone. Adequate hormone production helps drive the physiological processes involved in sexual health. The complex relationship between hormones, enzymes and other biochemicals must be carefully nurtured if a psychological, physiological and anatomical balance that supports optimal sexual health can be attained.

Several ingredients found in Male Virility Support may help support healthy sex drive in men. The active ingredient in horny goat weed, icariin, has been shown to be an effective regulator of the PDE-5 (phosphodiesterase 5) enzyme. This enzyme is involved in blood vessel dilation and circulation, both of which are critical for male sexual health. Tribulus terrestris has been shown to support healthy libido. Maca helps promote endurance, energy, and vitality. Korean Ginseng is a potent adaptogen that helps support energy and vitality. Damiana and Muira Puama both help support libido and male vitality.

INDICATIONS
Male Virility Support may be a useful dietary supplement for men looking to support healthy, normal sex drive, energy and stamina.

FORMULA (WW #10253)
2 Capsules Contain:
Virilomax™ Propietary Blend ......................... 750 mg
Horny Goat Weed (Epimedium sagittatum) aerial parts standardized to 10% icarins, Fenugreek seed extract, and Muira Puama (Ptychopetalum olacoides) bark and root powder.
Synergized with T Pump Herbal Activator .......... 750 mg
Kola nut seed extract, Maca (Lepidium meyenii) root powder, Tribulus terrestris aerial parts powder, Damiana (Turnera diffusa) leaf powder, and Korean Ginseng root powder.

Other Ingredients: Gelatin, water (capsule), cellulose, stearic acid, magnesium stearate and silica. ViriloMax™ is a herbal libido formula that’s potentiated with the proprietary T Pump herbal activator to support men’s sexual health and normal healthy testosterone levels.

Contains No sugar, salt, dairy, yeast, wheat, gluten, corn, soy, preservatives, artificial colors or flavors.

SUGGESTED USE
As a dietary supplement, men take two (2) capsules daily with meals, or as directed by a healthcare professional.

SIDE EFFECTS
No significant side effects noted. Please consult with a healthcare professional before taking Male Virility Support if you are taking blood thinners, medications for blood pressure or heart conditions, vasodilators, or already taking medications for erectile dysfunction.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES
Piato AL, Detanico BC, Linck VM, Herrmann AP, Nunes DS, Elisabetsky E. Anti-stress effects of the “tonic” Ptychopetalum olacoides


MCHC Plus

By Design

DESCRIPTION

MCHC Plus is an encapsulated comprehensive bone support formula. Microcrystalline hydroxyapatite concentrate (MCHC) contributes calcium, phosphorus, organic factors and protein matrix, bone-derive growth factors, and a full spectrum of trace minerals that naturally comprise healthy bone. Additional calcium and magnesium are in the form of highly absorbable, Albion®-patented, totally reacted, malate containing chelates. Vitamin D is as cholecalciferol. Independent third party assays document freshness and purity of every batch.

FUNCTIONS

A randomized-controlled study concluded the combination of ossein hydroxyapatite (“OHC”, generic Product Name) and HRT increased vertebral bone mass in postmenopausal women to a greater extent (4.7%, P<.01) than did HRT alone.[1] Another randomized-controlled study divided 60 postmenopausal women not on HRT into three groups. One group did not receive any treatment, one received calcium carbonate(CC), and the third received OHC. Subjects on OHC therapy did not show significant changes from baseline bone density; density decreased significantly in the CC group during the second year and decreased in the control group at the first and second bone mineral density measurement.[2] Yet another double-blind study showed OHC is more effective than CC in slowing peripheral trabecular bone loss in patients with manifest osteoporosis.[6] The bioavailability of calcium in ossein-mineral complex was also proven to be as good as, if not better than, that of Ca-gluconate.[3]

Two randomized clinical trials demonstrated MCHC Plus is well-tolerated and prevents the onset or progression of osteoporosis in patients treated with corticosteroids.[4,5] Only two subjects out of 19 subjects who reported back pain at the beginning of a study still had any complaint after the 12-month trial on MCHC Plus.[4]

Unlike other calcium supplements on the market, MCHC Plus consists of collagenous and non-collagenous proteins/peptides that contain insulin-like growth factor I (IGF-I), insulin-like growth factor II (IGF-II), transforming growth factor beta (TGF-beta) and osteocalcin. These factors stimulate the activity of alkaline phosphatase in human bone cells.[6]

Calcium absorption in the intestines is stimulated by Vitamin D, likely deficient in the American diet/lifestyle.[7] The normal aging process in combination with a Vitamin D insufficiency may lead to secondary hyperparathyroidism in the elderly, a condition that facilitates bone loss. MCHC Plus contains Vitamin D3, a pre-formed source of Vitamin D activity. Dietary magnesium deficiency has been linked to Osteoporosis. MCHC Plus contains magnesium in a 2:1 ratio with calcium. The malates do not react with stomach acid and are less likely than carbonates to cause gas and acid rebound.[8]

INDICATIONS

MCHC Plus may be a useful dietary supplement for individuals wishing to support bone density/integrity.

FORMULA

2 Capsules Contain:

| Vitamin D (as cholecalciferol) | 100 I.U. |
| Calcium (from MCHC and dicalcium malate) | 400 mg |
| Magnesium | 200 mg |
| MicroCrystalline Hydroxyapatite Concentrate | 1,000 mg |

Other Ingredients: HPMC (capsule), stearic acid and magnesium stearate.

SUGGESTED USE

Adults take 2 capsules twice daily or as directed by a healthcare professional.

SIDE EFFECTS

No adverse effects have been reported.

STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES

2. Castelo-Branco C, Pons F, Vicente JJ, Sanjuan A, Vanrell JA.


8. Malic acid can be the right ligand for certain applications. Albion® Research Notes; April 2002;12(2):3

9. Product literature from Robapharm AG. 174 St Albansteinweg CH-4006 Basle Switzerland Sanofi Winthrop Lt One Onslow Street Guildford Surrey GU1 4YS Sanofi Winthrop Ireland Ltd Pottery Road Dun Laoghaire Ireland

NutraLibido For Women

By Design

DESCRIPTION
NutraLibido is an herbal-based supplement, which combines Muira Puama, Maca, Avena Sativa, and Ginseng to aid sexual health. NutraLibido includes Dong Quai and Tribulus to support hormone health, while Choline and Vitamin B5 help energy levels. Additionally, L-Arginine, Cocoa Extract, and Ginkgo Biloba can encourage blood circulation.

FUNCTIONS
Avena Sativa: More commonly known as a cereal grain or oats, Avena Sativa (oat plant) is cultivated worldwide. Many nutrients are contained in Avena Sativa including vitamins B, magnesium, iron, and zinc. It has been suggested that Avena Sativa’s tension-relieving effects decrease sexual ailments that are related to stress and anxiety, but research is inconclusive.

CocoActiv (Theobroma cacao L.): Theobroma cacao L., also known as cocoa, is cultivated in tropical regions of Central and South America. Cocoa contains antioxidants, including phytochemicals that are beneficial to sexual health. Furthermore, the high polyphenol content enhances nitric oxide synthesis to improve blood circulation throughout the body.

Dong Quai: Commonly used in Chinese medicine to balance hormones and stimulate sexual behavior, Dong Quai is a plant that grows in the mountain regions of Korea, Japan, and China. There is evidence that Dong Quai increases sexual behavior, as it has been reported in female animals. Yet, Dong Quai research is inconclusive.

Ginkgo Biloba: One of the oldest living trees, Ginkgo Biloba can survive over 1,000 years and grow 120 feet. The leaves contain two unique antioxidants, flavone glycosides and terpene lactones, which improve circulation and maintain the tone and elasticity of arteries and capillaries.

One cause of impotence is poor blood circulation. Ginkgo improves blood flow throughout the body by restoring the nitric oxide balance. One study observed the effects of ginkgo on impotence among 60 patients. It was reported that 6 to 8 weeks of ginkgo supplementation improved blood flow in 50% of the patients.

The improvements in nitric oxide synthesis have made ginkgo a beneficial aid for restoring microcirculation and relaxing vascular walls in older individuals with circulation problems, including erectile ailments. As individuals age, endothelial function (interior blood vessel cells) decreases altering coronary blood flow. One study recruited 60 healthy elderly adults to take ginkgo or a placebo. Results indicated ginkgo increased coronary blood flow and improved endothelial function by increasing dilation of the arteries.

Ginseng: Ginseng has commonly been used as an herbal treatment in Asian medicine to treat sexual ailments. Several studies have found ginseng can improve libido and sexual performance suggesting the herb’s ginsenoside components aid the central nervous system and gonadal tissues. Furthermore, ginseng increases potency by improving nitric oxide synthesis in many organs to stimulate tissues and increase sexual drive.

One study gave 108 women (22-73 years old) with a low sex drive a nutritional combination (Ginseng and other nutrients) or a placebo. After four weeks, women taking the nutritional formulation reported significant improvement in sexual health, especially among pre- and perimenopausal women.

The effects of ginseng were observed in female rabbits with sexual ailments. Results indicated that ginseng was a therapeutic treatment for relaxing the vaginal smooth muscle tissue concluding this action was mediated by nitric oxide synthesis. Another study found that male rats taking ginseng had an increase in mating behavior, when compared to the controlled group.

L-Arginine: L-Arginine is a semi-essential amino acid that aids nitric oxide synthesis by increasing circulation and dilating blood vessels. In addition, it stimulates the secretion of hormones. L-Arginine aids normal erectile function, as it maintains nitric oxide synthesis and restores suppressed blood circulation.

L-Arginine can reverse the actions of NG-nitro-L-Arginine, a nitric oxide inhibitor. One study found the amino acid improved oxide synthesis by relaxing the penile small arteries to aid normal erectile function.

A six-week study recruited 50 men with libido ailments to take L-Arginine or a placebo. Results indicated L-Arginine improved erectile function in men by restoring nitric oxide levels. An animal study reviewed L-Arginine’s effect on erectile function in rats taking the nutrient for eight-weeks. Results indicated L-Arginine increased nitric oxide synthesis by nearly 100% in the treatment group to aid normal erectile function.
Fifty patients with mild to moderate libido ailments took an L-Arginine/Pycnogenol combination for one month finding erectile function was restored and testosterone levels increased in the treatment group.  

Another study recruited 45 patients to take an L-Arginine/Yohimbine Hydrochloride combination, Yohimbine Hydrochloride, or a placebo. Results indicated a significant improvement in erectile function among patients taking the L-Arginine/Yohimbine Hydrochloride combination, when compared to the other two groups.  

Macra (MacPure™): Discovered in the Andes mountains, Macra root has been used for generations in Peru to improve fertility and sexual drive. A twelve-week study gave men (21 to 56 years old) 1,500 mg of Macra, 3,000 mg of Maca, or a placebo. Subjects taking Maca reported an increase in sexual desire, when compared to the placebo group. Furthermore, the nutrient did not change testosterone or estradiol levels.  

MacPure was given to male mice with libido ailments, observing the herb supported erectile function and increased the number of sperm-positive female mice to improve reproduction. A similar study gave female mice Maca, finding the nutrient enhanced female fertility in the treatment group to significantly create more offspring. MacPure was also administered to female mice and male rats. Results indicated Maca increased the number of sperm-positive female mice and normalized erectile function in male rats.  

Various Maca doses were compared among male rats with erectile ailments. Researchers discovered that both an acute (7 days) and short-term (21 days) treatment improved sexual behavior, while long-term administration (30 days) did not additionally enhance the benefits of an acute or short-term dose.  

Maca may also benefit sperm activity. One study found that sperm count increased in male rats taking Maca for seven days, as daily sperm production began to increase after the first day of treatment. In addition, Maca did not increase testicular testosterone levels.  

Muir Puama: A small Brazilian tree that grows mainly in the Amazon region, Muir Puama has a long history in Brazilian folk medicine as an aphrodisiac to improve low sex drive. One study gave a Muir Puama/Ginkgo Biloba formulation to 202 healthy women with low sex drive. After one month of treatment, subjects noticed significant improvement in sexual health. In addition, Muir Puama has been observed to have possible stimulant activity that improves physical and mental fatigue, without creating stress or anxiety.  

Tribulus Terrestris: Tribulus Terrestris is a vine plant that grows in tropical, mild climates throughout the United States, southern Asia, northern Australia, and southern Europe. Known for its ability to increase energy and sex drive, it is commonly used in Ayurvedic medicine. Tribulus’ effect on erectile function was evaluated in male rabbits and rats with erectile ailments. Results indicated an eight-week treatment with Tribulus increased sex hormones, including certain testosterone hormones that help balance mild to moderate erectile ailments.  

One study found that Tribulus improved sexual behavior in rats concluding the aphrodisiac activity may be due to the nutrients ability to increase testosterone levels. The same researchers conducted another animal study observing the effects of Tribulus on androgen receptors in the brain. Results indicated an eight-week treatment of Tribulus significantly increased mechanisms associated with androgen receptor sites to improve sexual drive. Similarly, Tribulus increased androgen activity and the release of nitric oxide to improve sexual function in rabbits taking the nutrient for eight weeks.  

INDICATIONS  
NutraLibido is a specialized formulation that contains the finest-quality, herbal ingredients to benefit sexual health.  

FORMULA [WW #10242]  
3 Capsules Contain:  
L-Arginine HCl.................................................. 400 mg  
CocoActiv™ (Cocoa) 8% Natural Theobromine .125 mg  
Macapure® (0.6% Macamides and Macaenes) .. 333 mg  
Muir Puama 10:1 Extract .................................... 400 mg  
Dong Quai Root (1% Ligustilide)..................... 150 mg  
Choline Bitartrate ............................................. 50 mg  
Vitamin B5 (Pantothenic Acid) ....................... 50 mg  
Avena Sativa 4:1 Extract ................................. 150 mg  
Ginseng (min. 0.8% eleutherosides) ............... 40 mg  
Ginkgo Biloba ................................................ 40 mg  
(min. 24% ginkgo flavone glycosides, min. 6% terpene lactones, less than 1 ppm ginkgolic acid)  
Tribulus Terrestris (40% Saponins)............ 200 mg  

SUGGESTED USE  
As a dietary supplement, adults take 3 capsules daily, or as directed by a healthcare professional.  

SIDE EFFECTS  
The maximum safe dosages of the nutrients in this formula have not been determined for children, pregnant or nursing women, or those with severe liver or kidney disease. As with all supplement regimens, please consult

Manufactured for: PCCA
9901 S. Wilcrest Dr.
Houston, TX 77099
281.933.6948
Avena Sativa: Individuals with gluten sensitivities should avoid supplements with Avena Sativa.

Cocoa: There are no known adverse reactions with proper supplementation.

Dong Quai: Possible side effects may include fever, upset stomach, and thinning of the blood. Dong Quai should not be used during pregnancy.

Gingko Biloba: Occasional gastrointestinal upset, allergic skin reaction and headache. Due to its blood thinning properties, care should be used by individuals with blood clotting problems or those taking anticoagulant medications.

Ginseng: Individuals with cardiovascular disease or diabetes (may lower blood glucose levels) should use caution when taking supplements with Ginseng.

L-Arginine: The most common adverse reactions occur at higher doses (15 to 30 g per day), which include nausea, diarrhea, and abdominal cramps. Pregnant and nursing mothers should avoid L-Arginine supplementation as it may stimulate growth hormone.

Maca Root: There are no known adverse reactions with proper supplementation.

Muira Puama: There are no known adverse reactions with proper supplementation.

Tribulus Terrestris: There are no known adverse reactions with proper supplementation.

Drug Interactions:
Consult a physician before taking NutraLibido, as the following key nutrients may interact with certain medications.

Avena Sativa: Statins (oat bran may impair absorption)

Cocoa: There are no known interactions with proper supplementation.

Dong Quai: Blood Thinning Medicine (Coumadin, Plavix, etc.) Antithrombotics

Gingko Biloba: Blood thinning medicine (Coumadin, Plavix, etc.); Pain Relievers (Advil, Motrin, etc.); Naproxen (Aleve, etc.); Anti-Depressants (Zoloft, Paxil, etc.); High blood pressure medicine (Cardizem, Cardene, etc.); Anti-convulsants (Dilantin, Tegretol, etc.); and/or Insulin.

Ginseng: Albenazole, Anticoagulants, Insulin, Estrogen, MAOIs, Nifedipine

L-Arginine: Diuretics (Aldactone, Midamor, Dyazide, etc.); Estrogen (Premarin, Estrace, etc.); Ibuprofen; Sildenafil Citrate; Cyclosporine; Organic Nitrates

Maca Root: There are no known interactions with proper supplementation.

Muira Puama: There are no known interactions with proper supplementation.

Tribulus Terrestris: There are no known interactions with proper supplementation.

**REFERENCES**

(Lepidium meyenii) on one spermatogenic cycle in rats. Andrologia. 2006; 38(5):166-172.


DESCRIPTION
Omega 780 EC contains pharmaceutical grade, enteric-coated, ultra-pure fish oils. These molecularly distilled oils provide 780 milligrams of omega-3 essentials fatty acids per softgel. To ensure purity, every batch is assayed for heavy-metal contamination.

FUNCTIONS
At the same time as the media increases consumer awareness of the importance of fish oils, manufacturers face the challenge of eliminating heavy metals and PCBs. The industry-leading technologies used in the preparation of Omega 780 EC surpass all national and international standards for environmental pollutants, including dioxins, PCBs, pesticides, and heavy metals, including mercury.

Wellness Works’ Omega 780 EC oils are processed through special molecular distillation. Molecular distillation is commonly used to purify and concentrate fish oils. In this process, the fish oil is broken down into its basic molecular components and separated by molecular weight. Due to varying molecular weights, specific components can be removed or concentrated to the oil. This ensures that contaminants can be reduced to levels far below industry standards. It also allows the manufacturer to increase the concentration of active ingredients.

Processing this fish oil formula begins with rigorous care and control of the starting raw materials (non-GMO sardines, mackerel, anchovies) to assure optimum oil quality. The oils are distilled in a controlled, pristine vacuum environment to minimize distillation temperatures. The exposure time, even to these lower distillation temperatures, is tightly controlled and uniform, resulting in levels of impurities well below the industry standards.

The technology employed for the Omega 780 EC meets special molecular distillation standards. As this oil is a concentrated source of omega-3 fatty acids, our manufacturer goes above and beyond the traditional purification methods to ensure its safety. This is accomplished by:

- A triple-phase molecular distillation purification process to maximize purity while concentrating the EPA and DHA polyunsaturated fatty acids
- Ensuring consistency in contaminant removal, and therefore purity levels, through uniform processing times
- Reducing the evaporation stage to half the time of traditional systems to drive down the oxidative risk

The proprietary technologies used in the manufacture of Omega 780 EC oils are in accordance with pharmaceutical standards that assure safe, consistent fish oils that exceed Council for Responsible Nutrition (CRN) Monograph standards and meet all international standards for oil safety, including WHO, Prop 65, and more.[9]

Despite aggressive marketing claims to the contrary, a recent publication by Oelrich et al reported that of the three formulations tested, there was no significant difference in the effect on triglycerides.[10] The active therapy of the three fish oil supplementation arms was 4 g/day of combined EPA and DHA provided as: a) 90% triglyceride (TG) formulation (TG90), b) 60% TG formulation (TG60), or c) ethyl esters (EE) (i.e., 0% TG). Furthermore, omega-3 fish oils provided in an ethyl ester formulation tended to have a lower impact on increasing LDL-cholesterol levels compared to omega-3 fish oils delivered in the triglyceride formulation.

It takes 2 gm/day of DHA supplementation for a month to saturate the plasma and three to six months of supplementation to saturate the tissues. Concentrations increase in breast milk within less than a week of DHA supplementation. Research suggests that omega-3 fatty acids are beneficial in supporting balanced cytokine production and neurological health. Furthermore, supportive but not conclusive research shows that consumption of EPA and DHA omega-3 fatty acids may reduce the risk of coronary heart disease.

INDICATIONS
Omega 780 EC softgels may be a useful dietary supplement for those who wish to supplement with fish oils.

FORMULA [WW #10261]
1 Softgel Contains:
Vitamin E (as mixed tocopherols) ....................10 I. U.
Fish Oil Concentrate ........................................ 1.4 g
  EPA (eicosapentaenoic acid) ....................... 450 mg
  DHA (docosahexaenoic acid) ...................... 330 mg

Other Ingredients: Gelatin, glycerin, purified water, enteric coating, and natural lemon oil.

Contains: Fish (anchovy and sardine).
**SUGGESTED USE**

As a dietary supplement, adults take one or two softgels one to three times daily, or as directed by a healthcare professional.

**SIDE EFFECTS**

No adverse effects have been reported.

**STORAGE**

Store in a cool, dry place, away from direct light. Keep out of reach of children.

**REFERENCES**

9. Molecular Distillation Reference Sheet. Bioriginal Food and Science Corp. Saskatchewan, CA
DESCRIPTION

Omega Fusion Lemon is a delicious alternative for those who can’t tolerate the taste of fish oil or have difficulty digesting fats. As an emulsified form of fish oil with a “lemon meringue” flavor, Omega Lemon Fusion ensures higher compliance and optimal intake of the essential fatty acids.

FUNCTIONS

Fish Oil is an excellent source of the omega-3 essential fatty acids Eicosapentaenoic acid (EPA) and Docosahexaenoic acid (DHA). Omega-3 fatty acids have been shown to support cardiovascular and neurological health, as well as healthy vision. Studies show that omega-3 fats EPA and DHA help support normal, healthy blood cholesterol and triglyceride levels and a healthy, normal inflammatory response. Since the body is only capable of producing limited amounts of EPA and DHA from the essential omega-3 fatty acid alpha-linolenic acid (ALA), we must, therefore consume them through our diet or supplementation. Since many consumers either dislike the taste of fish oil or aren’t amenable to taking large fish oil capsules, Omega Lemon Fusion is a pleasant tasting, highly bio-available form of Omega-3 fatty acids without the fish oil taste or cumbersome capsules. The delicious taste encourages daily compliance, and ensures optimal intake of the omega-3 fats. Each serving (2 teaspoons) provides 360 mg of EPA and 360 mg of DHA and there is evidence to suggest that emulsified forms of fish oil provide up to 90% greater absorption than standard fish oils.

Manufactured using the highest quality molecularly distilled fish oil; Omega 3 Fusion meets the strictest standards for mercury, lead, PCBs and other toxins that are found in many other fish oils. Consuming fish oil in a flavored, emulsified form is a safe and effective way to ensure an optimal intake of EPA and DHA each day.

INDICATIONS

As a dietary supplement, Omega Fusion Lemon provides a blend of the essential fatty acids that play an important role in supporting cardiovascular and neurological health, as well as healthy vision and inflammation.

FORMULA (WW #10248)

Two Teaspoons (approx. 10 ml) Contain:

- Eicosapentaenoic Acids (EPA)........................................ 360 mg
- Docosahexaenoic Acids (DHA)..................................... 360 mg
- Other Omega 3 Acids .................................................... 280 mg
- Linoleic Acid (Omega 6).............................................. 100 mg
- Other Omega 6 Acids .................................................... 100 mg
- Oleic Acid (Omega 9)..................................................... 690 mg
- Other Omega 9 Acids .................................................... 140 mg
- Other Ingredients: Pure fish oil (salmon and/or cod liver oil), water, xylitol, glycerine, gum arabic, natural flavors, citric acid, xanthan gum, guar gum, sorbic acid, turmeric, Vitamin E, and ascorbyl palmitate.

SUGGESTED USE

As a dietary supplement, adults and children (4 years and older) take two (2) teaspoons daily, or as directed by a health care professional. Shake well prior to use.

SIDE EFFECTS

Please consult with a healthcare professional before taking Omega Fusion Lemon if you are taking medications that thin the blood. Discontinue use of Omega Fusion Lemon if you are anticipating a surgical procedure.

STORAGE

Keep out of reach of children. Keep refrigerated after opening.

REFERENCES


Dr. Tom Gilhooly. Improved Bioavailability of Omega 3 from a Fish Oil Emulsion in Comparison to Standard Omega 3 Fish Oil, The Essential Health Clinic; Glasgow, Scotland.
Pantethine
500 mg / By Design

DESCRIPTION

Pantethine offers 500 mg Pantethine in tablet form. Pantethine is the biologically active form of Pantothenic acid (vitamin B5), a proven treatment in dyslipidemia (disorders of blood lipids, including high cholesterol).

FUNCTIONS

Cholesterol is a blood lipid, a fatty substance that is found in all parts of the body. When the concentration of cholesterol in the blood is too high, many problems, including heart disease, can occur. While cholesterol is manufactured within the body, the average “American diet” provides an excessive intake of cholesterol and fat, leading to many serious health problems.

An effective supplement that has proven to help reduce low density lipoproteins (LDL — the “bad cholesterol”) while simultaneously raising high density lipoproteins (HDL — the “good” cholesterol) is pantethine. In study after study, this beneficial supplement has proven to help patients control their cholesterol levels.

A number of studies focused on a group of people with particular health concerns (i.e. diabetics, peri-menopausal, etc.) and in each conclusion, pantethine worked in these health conditions without any detrimental side effects.

The metabolic activity of pantethine is probably due to its role in the synthesis of CoA and acyl carrier proteins. CoA is a cofactor in over 70 enzymatic pathways including fatty acid oxidation, carbohydrate metabolism, pyruvate degradation, amino acid catabolism, heme synthesis, acetylcholine synthesis, and phase II detoxification acetylation. ACP is an essential component of the fatty acid synthase complex required for fatty acid elongation.

While the exact mechanism of action of pantethine in normalizing parameters associated with dyslipidemia is unknown, several explanations have been proposed. Some authors have suggested pantethine might be capable of directly modulating the action of several enzymes involved in cholesterol synthesis.

The efficacy of pantethine in normalizing parameters of dyslipidemia might also be due to its ability to increase CoA levels. Theoretically, if pantethine enhances the formation of CoA, the additional CoA might then combine with free acetyl groups to form acetyl-CoA. The acetyl-CoA could then be directed into the TCA cycle or beta-oxidation at the expense of cholesterol formation.

In addition to its cholesterol lowering abilities, several human and animal studies have concluded that pantethine may support other functions, including the healthy metabolism of blood glucose, as well as adrenal and eye health.

INDICATIONS

Pantethine tablets may be a useful dietary supplement for individuals who wish to support their cardiovascular system and help maintain healthy cholesterol levels.

FORMULA (WWW #10234)

1 tablet supplies:

Pantethine .................................................. 500 mg

SUGGESTED USE

Adults take 1 tablet daily with meals or as directed by physician.

SIDE EFFECTS

No adverse effects have been reported.

STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES


Manufactured for: PCCA
9901 S. Wilcrest Dr.
Houston, TX 77099
281.933.6948
Perfect E
By Design

DESCRIPTION
Perfect E features the complete family of vitamin E compounds. Until recently, most vitamin E supplements only contained alpha-tocopherol – one of the most active forms of vitamin E. But research has demonstrated the importance of consuming the entire family of vitamin E compounds.

FUNCTIONS
Vitamin E is a collective name for a group of eight different compounds: alpha, beta, gamma and delta-tocopherol and alpha, beta, gamma and delta-tocotrienol. Until recently, research on vitamin E has focused on alpha-tocopherol but research shows that taking several different isomers of this vitamin is better than taking any singularly. In addition, high intakes of alpha-tocopherol can decrease tocotrienols in the body; hence the importance of taking both forms. Although alpha-tocopherol is well known as an antioxidant, tocotrienols have additional biochemical and physiological effects that benefit the body. As an example, unlike alpha-tocopherol, gamma-tocopherol has the ability to protect against nitrogen-based free radicals. This type of free radical plays an important role in diseases associated with chronic inflammation. Tocotrienols have been shown to support normal, healthy cholesterol level through its effect on HMG-CoA reductase enzyme. They have also been shown to support, normal blood clotting and normal, healthy cell growth.

INDICATIONS
Vitamin E is an important nutrient derived from the diet. Perfect E provides a complete blend of vitamin E compounds that may be lacking in the diet or for those who wish to support normal, healthy cardiovascular health.

FORMULA

1 Softgel Capsule Contains:
Vitamin E ........................................ 400 IU
(as d-alpha-tocopherol)
Mixed Tocopherols .................................. 536 mg
d-gamma-tocopherol .......................... 400 mg
d-delta-tocopherol .............................. 91 mg
d-beta-tocopherol ................................ 45 mg
Tocotrienols (from palm) ..................... 40 mg
Gamma tocotrienol ............................... 21 mg
Delta tocotrienol ............................... 8 mg
Alpha tocotrienol ............................... 12 mg
Beta tocotrienol ............................... 1 mg

SUGGESTED USE
Adults take one (1) softgel capsule daily with meals or as directed by a healthcare professional.

SIDE EFFECTS
Vitamin E might slow blood clotting. Please consult with a healthcare professional before taking Perfect E if you are on certain medications changed by the liver (Cytochrome P450 3A4 (CYP3A4) substrates), anticoagulants or medication to lower cholesterol. Because vitamin E is an antioxidant it may interact with anticancer medication.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

Contains no sugar, salt, dairy, yeast, wheat, gluten, corn, preservatives, artificial colors or flavors.

REFERENCES
Christen S, Woodall AA, Shigenaga MK, Southwell-Keely PT, Duncan MW, Ames BN. gamma-tocopherol traps mutagenic electrophiles such as NO(X) and complements alpha-tocopherol; physiological implications. Proc Natl Acad Sci U S A. 1997 Apr 1;94(7):3217-22.


Pyridoxal-5-Phosphate

50 mg / By Design

DESCRIPTION
Pyridoxal-5-Phosphate provides 50 mg of Pyridoxal-5-Phosphate per each capsule.

FUNCTIONS
Pyridoxal-5-Phosphate (P5P) is the metabolically active coenzyme of Vitamin B6. The body must convert B6 vitamins to pyridoxal, and then phosphorylate them to P5P in the liver. This conversion is necessary, since P5P is the only form which can be used by the enzymes involved in biochemical processes, which are associated with nitrogen and protein metabolism and heme synthesis. P5P is exported from the liver and is considered the most relevant direct measure of vitamin B6 status. Vitamin B6 nutritional status can have a significant and selective modulatory impact on central production of both serotonin and GABA → neurotransmitters, which can positively affect emotional response, pain perception, and anxiety. Vitamin B6 has also been studied for cardiovascular uses as well.

INDICATIONS
Pyridoxal-5-Phosphate may be a useful dietary supplement for individuals wishing to increase their intake of a metabolically active form of Vitamin B6.

FORMULA [WW #10237]
1 capsule contains
Pyridoxal-5-Phosphate ................................................. 50 mg

SUGGESTED USE
Adults take 1 capsule daily with meals or as directed by physician.

SIDE EFFECTS
No adverse effects have been reported.

STORAGE
Store in a cool, dry place, away from direct light.
Keep out of reach of children.

REFERENCES
Red Yeast Rice Plus

By Design

DESCRIPTION
Red yeast rice is a traditional Asian food that dates back to 800 AD. Scientific studies have shown that red yeast rice can help to support healthy cholesterol levels that are already within the normal range. It is organically grown in the USA and is free of citrinin, a toxin that can be found in fermented foods. CoQ10, milk thistle and n-acetyl-cysteine are included for added liver support.

FUNCTIONS
Cardiovascular disease continues to be the leading cause of mortality in the United States. One of the major risk factors for cardiovascular disease is elevated total and LDL (“bad”) cholesterol. There are several categories of prescription drugs that are designed to help lower cholesterol; the most commonly prescribed being the Statin drugs. Statins are effective at lowering total and LDL cholesterol, but they are associated with significant side effects. Many individuals with elevated cholesterol have been able to improve their cardiovascular health through diet, exercise and nutraceutical supplements.

One of the nutraceuticals that has been shown in research studies to support normal LDL and total cholesterol levels is red yeast rice. Red yeast rice is the product of yeast (Monascus purpureus) grown on rice and it contains several compounds collectively known as monacolins that work similar to statin drugs and support the mechanisms that can lead to improved cardiovascular health. Taking red yeast rice for extended periods of time could affect CoQ10 levels because the mechanism of action of red yeast rice and statin medications are similar. It is also important to support healthy liver function when taking red yeast rice or statin medication. Therefore, Red Yeast Rice Plus is combined with CoQ10 as well as compounds like N-acetyl-cysteine (NAC) and standardized milk thistle. N-acetyl-cysteine plays a critical role in regenerating glutathione, an important antioxidant and detoxing compound found in the liver. Milk thistle has been shown to protect hepatic cells and support healthy liver function and detoxification.

INDICATIONS
In conjunction with a healthy diet and exercise, Red Yeast Rice Plus may be a useful dietary supplement for those who wish to support healthy cholesterol levels.

FORMULA [WW #10249]
1 Vegetarian Capsule Contains:
Organic Red Yeast Rice (Monascus purpureus) . 600 mg
N-acetyl-cysteine ......................................................... 50 mg
Milk Thistle .............................................................. 25 mg
(Silybum marianum 80% [20 mg] silymarin)
Coenzyme Q10 (as ubiquinone)............................... 30 mg
Other Ingredients: Vegetarian capsule (cellulose, water), cellulose, stearic acid, magnesium stearate and silica.

SUGGESTED USE
As a dietary supplement, adults take one (1) capsule, twice (2) daily with meals or as directed by a healthcare professional.

SIDE EFFECTS
Do not use this product if you are pregnant, lactating or have liver disease. Individuals who take prescription medication to lower their cholesterol should consult with their healthcare professional before using.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES


Rhodiola Rosea

100 mg / By Design

DESCRIPTION
Maintain energy and manage stress. Rhodiola Rosea is an adaptogen that can benefit physical, biological, and chemical stressors in the body. Its properties may help stimulate the nervous system, balance mood, reduce fatigue, and sustain cognitive function. Rhodiola Rosea can help you get through the day with increased endurance, energy, and well-being.

FUNCTIONS

Adrenal Health: Rhodiola extracts can help maintain proper function of the hypothalamic-pituitary-adrenal axis and relieve mental stress. The extract can prevent behavioral and physiological changes that are often associated with chronic stress, as well as stimulate the central nervous system to balance mood and behavior.

Cardiovascular Health: Stress-induced damage to cardiovascular tissue can be moderated by rhodiola rosea. The extract has been shown to decrease adrenaline-induced arrhythmias that can injure cardiovascular tissue. Rhodiola has been shown to inhibit plaque formation and improve endothelial function.

Cognitive Function: Rhodiola can support cognitive abilities. Forty females who experienced stressful conditions were given rhodiola with schisandra chinesis and ginseng to find that participants had greater focus, mental speed, and accuracy during stressful conditions.

Individuals with physical and cognitive deficiencies were given rhodiola with a combination of vitamins for 12 weeks. Researchers observed a significant improvement in physical and cognitive complaints, including sleep disturbance, low motivation, exhaustion, forgetfulness, etc. Rhodiola may also protect against oxidative stress and mental deficiencies that can come with age-related cognitive dysfunction.

Energy: Rhodiola can lessen fatigue that may occur with chronic stress. One study observed the effects of rhodiola extract on 56 healthy physicians that were suffering from fatigue during night shifts. After two weeks of rhodiola supplementation, the study found a significant improvement in energy levels among individuals taking the extract. Researchers suggested rhodiola can decrease fatigue during stressful conditions.

Rhodiola Rosea, also known as Artic or Golden root, is a plant that originates in Siberia and Northwestern China. It contains adaptogen properties, such as rosavins and other constituents, to increase the body’s resistance to stress and mental fatigue.

Mood Balance: Rhodiola’s adaptogenic properties can improve mood imbalances. A six-week study recruited individuals with mood ailments to take rhodiola extract, finding mood, sleep, and emotions improved in subjects taking rhodiola extract. Similarly, rhodiola may alleviate chronic anxiety, as a ten-week study demonstrated it significantly reduced anxiety among individuals taking the extract.

INDICATIONS
Rhodiola Rosea, also known as Artic or Golden root, is a plant that originates in Siberia and Northwestern China. It contains adaptogen properties, such as rosavins and other constituents, to increase the body’s resistance to stress and mental fatigue.

FORMULA [WW #10243]
1 Capsule Contains:
Rhodiola Rosea.................................................. 100 mg
(2% Rosavins, 1% Salidrosides)

SUGGESTED USE
As a dietary supplement, adults take 3 capsules daily, or as directed by a healthcare professional.

SIDE EFFECTS
The maximum safe dosages of the nutrients in this formula have not been determined for children, pregnant or nursing women, or those with severe liver or kidney disease. As with all supplement regimens, please consult your physician prior to use.

There are no known adverse reactions with proper supplementation.

Drug Interactions
There are no known interactions with proper supplementation.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES
2. Perfumi M, Mattioli L. Adaptogenic and central nervous system effects of single doses of 3% rosavin and 1% salidroside Rhodiola rosea L.
**Saccharomyces Boulardii**

*By Design*

**DESCRIPTION**
Saccharomyces Boulardii is a natural, non-pathogenic yeast that has been shown to maintain and restore the healthy ecology of the small and large intestines.

**FUNCTIONS**
Saccharomyces Boulardii is manufactured using a process that involves controlled temperature and low vacuum, eliminating the shock of freeze-drying. The drying procedure, which does not modify the water content of the preparation, slows down aging, cell deterioration, and contamination, leading to increased stability and greater resistance to gastric acids. The process does not require lactose, making it perfect for those who are dairy/lactose intolerant.

Saccharomyces boulardii is a natural, non-pathogenic yeast that has been shown to maintain and restore the healthy ecology of the small and large intestines. In a 2010 systematic review and meta-analysis of 31 randomized, placebo-controlled treatment arms in 27 trials (encompassing 5029 adult study patients), S. boulardii was found to be significantly efficacious and safe in 84% of those treatment arms. [1] It has been used safely in infants and children as well. [2] (Please see “Cautions”)

Extensively researched and published in European and American peer reviewed journals, Saccharomyces boulardii has demonstrated several mechanisms of action. These include 1) secretion of a protease that degrades bacterial toxins, inhibiting them from binding to the intestinal brush border, 2) binding of E.coli, Salmonella spp, and other bacteria, preventing these bacteria from adhering to the intestinal epithelium and, possibly, expelling these pathogens from the body via the stool, [3] 3) interference with enterohemorrhagic Escherichia coli-induced signaling pathways in T84 cell transduction signals, [4] 4) modulation of the release of polyamines that restore intestinal mucosal health, possibly by stimulating the maturation and turnover of enterocytes and increasing production of disaccharidases such as glucoamylase, lactase, maltase, and sucrase, 5) stimulation of immune cells of the intestinal mucosa, inducing secretion of slgA, [5] 6) reduction in the secretion of inflammatory IL-8 by inhibiting production of NFKappaB and MAPK signaling pathway (also inhibits IL-6 and TNF-alpha while increasing secretion of anti-inflammatory IL-10)[6], 7) hindrance (in vitro) of the ability of Candida albicans to form filaments and to adhere and form biofilms, [7] and 8) support for an increase in fecal short-chain fatty acids, including butyrate. [8]

**INDICATIONS**
• Stimulate Immune Response in the Intestinal Mucosa
• Enhance Integrity of Mucosa and Enzymatic Activity of the Intestinal Cells
• Neutralize Certain Bacterial Toxins

**FORMULA** [WW #10233]
1 Capsule Contains
Saccharomyces Boulardii ............................................ 300 mg (yielding over 3.0 x 10^9 organism per capsule)
Other ingredients: Cellulose, gelatin (capsule) and vegetable stearate.

This product contains NO wheat gluten, soy protein, milk/dairy, corn, artificial coloring, preservatives or flavoring.

**SUGGESTED USE**
As a dietary supplement, adults take 1 capsule with each meal (3 times daily) or as directed by your healthcare professional.

**SIDE EFFECTS**
No adverse effects have been reported.

**STORAGE**
CAUTION: Not for use by infants under six months of age. Do not use if you have been diagnosed with immunosuppression or are taking immunosuppressants.

Keep out of reach of children. STORAGE: Keep tightly closed in a cool, dry place. Does not require refrigeration.

**REFERENCES**


Sleep Support

By Design

DESCRIPTION
Sleep Support contains key ingredients that support a restful night’s sleep.

FUNCTIONS
Sleep is vital to our mental, emotional and physical functioning. Research has shown that lack of sleep has a negative effect on mood, short-term memory, reaction time, alertness and the immune system. Factors that interfere with sleep include: stress, anxiety, caffeine consumption, alcohol consumption, eating late at night, overstimulation (TV, work, noise), medications (antidepressants, appetite suppressants and decongestants), health conditions (arthritis, hyperthyroidism and indigestion), and sleep apnea. Alternately, there are many lifestyle habits that can promote healthy sleep, such as stopping caffeine consumption after noon, making your bedroom completely dark and avoiding activities that stimulate the brain (such as watching TV) before bed. The ingredients in sleep support provide a broad spectrum of nutrients and herbs plus the hormone melatonin to assist in falling asleep, staying asleep and sleeping deeply. Melatonin, a hormone secreted by the pineal gland, has been shown to regulate the sleep/wake cycle, assist with sleep onset and improve sleep quality. Vitamin B6 is necessary for the production of the neurotransmitter serotonin, the precursor to melatonin. Valerian, a botanical traditionally used to support healthy, sleep facilitates the onset of deep sleep. Passion flower and L-Theanine have been included for their anti-anxiety and anti-stress properties.

INDICATIONS
Sleep Support may be a useful dietary supplement for those who wish to enhance their ability to fall asleep and sleep soundly.

FORMULA (WWW #10254)
1 Capsule Contains:
Vitamin B6 (as pyridoxine HCl) ......................... 2 mg
Magnesium (as carbonate) ............................. 50 mg
Melatonin .................................................. 1 mg

L-Theanine (from Suntheanine®) ......................... 100 mg
Passion flower aerial extract ......................... 100 mg
(Passiflora incarnata)
(Standardized to 3.5% [3.5 mg] Vitexin)
Valerian root extract .................................. 50 mg
(Standardized to 0.4% (0.4 mg) Valerenic Acids)

SUGGESTED USE
Adults take one (1) capsule before bed time or as directed by a healthcare professional.

SIDE EFFECTS
USE ONLY AT BEDTIME. Not for use by children under 18 years. If pregnant, breastfeeding or using a prescription drug, consult a healthcare professional. Do not take this product if you suffer from an autoimmune disease, depression, diabetes, endocrine disorder, or thyroid condition. Do not use this product while operating a motor vehicle or heavy machinery.

STORE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.
Strontium Citrate capsules provide 200 mg of elemental strontium in each vegetarian capsule.

Bone health is rapidly becoming an increasingly important issue. It is well known that the risk of fracture increases with age and that the number of people over 50 years of age is a rapidly growing segment of the population. By the year 2020, half of all Americans will already have or will develop problems with their bone structure.

The maintenance of healthy bone structure results from a balance of bone resorption (by osteoclasts) coupled with bone formation (from osteoblasts). The trace mineral strontium supports healthy bone structure by promoting healthy osteoblast activity while maintaining healthy osteoclast activity.

Human studies have shown the supplementation with strontium containing products may help maintain normal bone structure, including hip bones and vertebrae.

Strontium Citrate may be a useful dietary supplement for individuals wishing to support normal bone health.

1 Vegetarian capsule contains:
Strontium (from strontium citrate) ................. 200 mg

Adults take 1 capsule daily with meals or as directed by your healthcare professional.

No adverse effects have been reported.

Store in a cool, dry place, away from direct light.
Keep out of reach of children.

REFERENCES
**DESCRIPTION**

Thyroid Support with Zinc is a comprehensive vitamin, mineral and herbal formula designed to support healthy functioning of the thyroid gland.

**FUNCTIONS**

The thyroid gland produces and secretes thyroid hormones, mostly T4 (inactive) and small amounts of T3 (active). When needed T4 is typically converted in the liver, kidney and other tissues to active T3. The primary action of thyroid hormone is to raise the body’s metabolic rate — that is, to increase the rate of oxygen consumption and energy expenditure. Thyroid hormone is also essential for normal growth and development in children, interacts with other hormones to modulate carbohydrate, fat and protein metabolism, and controls other important biological functions.

Thyroid Support with Zinc provides the amino acid tyrosine and the mineral iodine (from kelp) — essential structural components of triiodothyronine (T3). Selenium is included as an essential cofactor for the enzymes that convert inactive T4 (thyroxine) into the active T3 (triiodothyronine). Also included are Ayurvedic herbs traditionally used to support thyroid health, including Commiphora mukul (Gugulipid®) and Bacopa monniera (Bacopin®).

**INDICATIONS**

Thyroid Support with Zinc may be a useful dietary supplement for those who wish to support healthy functioning of the thyroid gland.

**FORMULA** [WW #10257]

2 Vegetarian Capsules Contain:

- Vitamin A (as palmitate).......................... 2,500 IU
- Vitamin C (as ascorbic acid)......................... 30 mg
- Vitamin D (as cholecalciferol)................. 400 IU
- Vitamin B-6 (as pyridoxine HCl)............... 15 mg
- Folic Acid ............................................. 400 mcg
- Iodine (from kelp).................................. 300 mcg
- Magnesium (as oxide, amino acid chelate)........ 100 mg
- Zinc (as monomethionine from L-OptiZinc®)..... 10 mg
- Selenium (as selenomethionine) ............... 100 mcg
- Copper (as amino acid chelate).................. 2 mg
- L-Tyrosine ............................................. 500 mg
- Green Tea (Camellia sinensis) leaf extract .... 60 mg
  (Standardized to 98% [58.8 mg] polyphenols)
- Gugulipid (Commiphora mukul) resin extract .... 150 mg
  (Standardized to 2.5% [3.75 mg] guggulsterones)
- Bacopin (Bacopa monniera) leaf extract......... 100 mg
  (Standardized to 20% [20 mg] bacosides A&B)
- Ashwagandha (Withania somnifera) root extract 100 mg
  (Standardized to 1.5% [1.5 mg])

Contains No sugar, salt, dairy, wheat, gluten, preservatives, artificial colors or flavors.

**SUGGESTED USE**

Adults take two vegetarian capsules at mealtime or as directed by a healthcare professional.

**SIDE EFFECTS**

Please consult with a healthcare professional before taking Thyroid Support with Zinc if you are pregnant or breastfeeding, or have hypothyroidism or hyperthyroidism.

**STORAGE**

Store in a cool, dry place, away from direct light. Keep out of reach of children.

**REFERENCES**

Ubiquinol CoQH 100 mg

By Design

DESCRIPTION
Ubiquinol is the reduced (electron-rich) form of Coenzyme Q10. It is identical to the CoQ10 produced by the body and is already activated, bypassing the need for conversion.

FUNCTIONS
Ubiquinol is an integral part of the body’s antioxidant defense system. Antioxidant nutrients are necessary to protect the body from the destructive effects of harmful molecules that cause oxidation. As a lipid-soluble antioxidant it actively eliminates peroxyl radicals, hydroperoxyl radicals and lipid peroxides in biological membranes. Ubiquinol also regenerates oxidized vitamin E, restoring its antioxidant function. Supplementation with ubiquinol has been shown to increase the resistance of LDL cholesterol to oxidation in human subjects. Evidence suggests that oxidative stress contributes to the development of many common health problems, including atherosclerosis and diabetes mellitus. Ubiquinol is also a carrier of electrons in the mitochondrial electron transport chain that plays a role in ATP synthesis. It is present in large quantities in tissues with very high metabolic demands, such as cardiac muscle. Numerous studies have shown that supplementation with ubiquinol may support cardiac health.*

INDICATIONS
Ubiquinol may be a useful dietary supplement for those who wish to support mitochondrial or cardiovascular health or enhance antioxidant protection.

FORMULA (WW #10247)
1 Softgel Capsule Contains:
Ubiquinol CoQH............................................. 100 mg
(Reduced form of CoQ10)
Other Ingredients: Capsule (gelatin, glycerin, and water), soybean oil, beeswax, soy lecithin and carob.

Ubiquinol QH™ is manufactured by Kaneka, one of the world’s leaders in natural pharmaceutical grade CoQ10. It is produced through a patented process that stabilizes this reduced form of CoQ10 against oxidation.

SUGGESTED USE
As a dietary supplement, adults take one (1) softgel capsule, one (1) to three (3) times daily with meals or as directed by a health care professional.

SIDE EFFECTS
Please consult with a healthcare professional before taking Ubiquinol if you are taking Warfarin (Coumadin) or antihypertensive drugs.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES
Schmelzer C and Döring F. Micronutrient special issue: Coenzyme Q (10) requirements for DNA damage prevention. Mutat Res. 2012;733(1-2):61-68.

Contains No sugar, salt, dairy, yeast, wheat, gluten, corn, preservatives, artificial colors or flavors.

Manufactured for: PCCA
9901 S. Wilcrest Dr.
Houston, TX 77099
281.933.6948
VegiZyme

By Design

DESCRIPTION
VegiZyme is the most potent, cost-effective, non-prescription, broad spectrum, non-animal-derived digestive enzyme formula on the market. Each capsule is packed to the maximum with lipase, proteases, lactase, and alpha galactosidase. The latter also contains dipeptidyl peptidase IV. Unlike porcine pancreatin, which only works in a narrow pH, VegiZyme works in a wide range of pH.

FUNCTIONS
Pancreatic juice neutralizes stomach acid and contains enzymes needed to digest foods and properly absorb nutrients. Amylase, also found in saliva, breaks down carbohydrates into simple sugar. Lipase works with bile to dissolve fats into fatty acids. Proteases break down protein molecules into amino acids, also keeping intestinal bacteria, protozoa, and yeast in check.

The inability to produce adequate enzymes can result from pancreatic insufficiency or damage to the brush border villi. Both are common, especially in older adults.[1] In a person of any age, many experts believe that inadequate enzyme production may be a significant culprit in food allergies/sensitivities. Common post-meal symptoms of enzyme insufficiency include indigestion, bloating, cramping, and gas. Other symptoms include weight loss, as well as frequent loose, odorous stools that float and look greasy or fatty.

The pancreas is complemented by the intestinal brush border cells, which produce lactase, peptidase, maltase, sucrase, alpha galactosidase, glucoamylase, and alkaline phosphatase. Any damage to the intestinal mucosa, such as occurs with bacterial overgrowth, can potentially decrease brush border function.[2]

Lactose, a disaccharide prebiotic/energy source composed of glucose and galactose, promotes absorption of calcium, phosphorous, and iron. Approximately 70% of the world’s population suffers from a generally lifelong insufficiency of lactase, the enzyme needed to break down lactose. Malabsorbed lactose causes diarrhea when fluid and electrolytes are drawn into the lumen by the osmotic load.

Colonic bacteria use unabsorbed lactose to produce volatile fatty acids and gases, leading to bowel distension, pain, flatulence, and acidity. Removing dietary lactose, although effective, can be difficult and may lead to nutrient deficiencies. Replacing lactase is effective management.[3,4,5] VegiZyme contains 9,000 FCC lactase units per capsule, the equivalent of three tablets of regular LactAid®.

Raffinose, stacchionose, and melibiosc, polysaccharides commonly found in legumes, are hydrolyzed in the small intestine by the enzyme, Alpha Galactosidase. In the absence/deficit of this enzyme, the sugars pass into the large intestine, where microbes ferment them and produce gas, bloat, pain, and general discomfort. This condition is sometimes referred to as Complex Carbohydrate Intolerance (CCI). Unlike the variety of means used to treat symptoms of CCI, taking alpha galactosidase itself prevents their initial occurrence.[6,7]

Cellulase, Hemicellulase, and Xylanase are present to deconstruct plant cell walls, improving their digestibility. Phytase breaks down undigestible phytates from grains and seeds, releasing phosphorous, calcium, inositol, and other nutrients for absorption. Bromelain and papain, in addition to peptidase and proteases (which function optimally within specific pH ranges), offer proteolytic support. Invertase catalyzes sugar to glucose and fructose.

INDICATIONS
VegiZyme may be a useful dietary supplement for those who wish to support healthy digestion of macronutrients and enhance nutrient absorption.

FORMULA (WW #10259)
1 Capsule Contains:
Protease (pH 2.5-5.0)..............................3025 SAP
Alpha-Galactosidase ..........................1,000 GAL
Amyloglucosidase (Glucoamylase)..............30 AG
Beta-Glucanase .....................................50 BGU
Bromelain (from pineapple)..................1,745,000 PU
Cellulase .........................................5,000 CU
Amylase ........................................12,000 SKB
Lactase ...........................................9,000 ALU
Protease (pH 3.0-6.0) ........................................ 100,000 HUT
Lipase .............................................................. 2,000 HCU
Peptidase ........................................................... 1,200 HUT
Invertase ............................................................. 1,000 Sumner
Papain (from papaya) .................................... 33,000 TU
Pectinase .......................................................... 35 Endo PG
Phytase ........................................................... 10 U
Xylanase ........................................................... 150 XU

Other Ingredients: Vegetable Capsule (HPMC, water), microcrystallinecellulose, magnesium stearate.

**SUGGESTED USE**
As a dietary supplement, one or more capsules at the beginning of or with a meal/snack, or as directed by a healthcare professional. If necessary, capsules may be opened and contents sprinkled over food

**SIDE EFFECTS**
No adverse effects have been reported.

**Caution:** Avoid if allergic to pineapple, papaya, aspergillus, or any other ingredient.

**STORAGE**
Store in a cool, dry place, away from direct light. Keep out of reach of children.

**REFERENCES**
DESCRIPTION
Vitamin D contains 5,000 I.U. of natural vitamin D3 per tablet.

FUNCTIONS
Vitamin D, also known as the “sunshine vitamin,” is an essential vitamin that plays many important roles in the proper functioning of the body. Though classified as a vitamin, vitamin D is actually a key regulatory hormone for calcium and bone metabolism. Adequate vitamin D status is essential for ensuring normal calcium absorption and maintenance of healthy plasma calcium levels. Besides bone support, vitamin D has many other roles in the body, including modulation of cell growth, neuromuscular and immune function and inflammatory support.

Numerous scientists now feel that supplementation with vitamin D at levels greater than previously thought necessary is critical to helping maintain healthy bone remodeling and healthy vitamin D plasma levels.

INDICATIONS
Vitamin D 5,000 IU may be a useful dietary supplement for those individuals wishing to support general health or whose requirements for vitamin D cannot be met by lower potency products.

FORMULA [WW #10252]
1 Softgel Capsule Contains:
Vitamin D-3 .................................................. 5,000 I.U.
(as cholecalciferol)
Other Ingredients: Softgel (gelatin, glycerin and water), virgin olive oil.

Contains No sugar, salt, yeast, wheat, dairy, gluten, corn, soy, preservatives, artificial colors or flavors.

SUGGESTED USE
As a dietary supplement, adults take one (1) softgel daily with meals, or as directed by a healthcare professional.

SIDE EFFECTS
No adverse effects have been reported.

STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES


DESCRIPTION
Vitex supplies 400 mg of Agnus castus standardized herb in each vegetarian capsule.

FUNCTIONS
Agnus castus, also known as vitex or chastberry, is a traditional herb native to Central Asia and the Mediterranean region. It has been traditionally used to support healthy reproductive function in women.

Premenstrual tension (PMT), also called premenstrual syndrome, is a condition that affects many menstruating women one to two weeks before they begin menstruation. Symptoms may include abdominal bloating, cramping, breast tenderness and swelling, fatigue, irritability, anxiety, headache, and more. Research suggests that Agnus castus may play an important role in supporting a woman’s natural response to PMT.

INDICATIONS
Vitex may be a useful dietary adjunct for individuals wishing to supplement with this herb.

FORMULA [WW #10231]
1 vegetarian capsule contains:
Agnus castus(standardized) .................. 400 mg

SUGGESTED USE
Adults take 1 capsule daily or as directed by physician.

SIDE EFFECTS
No adverse effects have been reported.

STORAGE
Store in a cool, dry place, away from direct light.
Keep out of reach of children.

REFERENCES
**DESCRIPTION**
Zinc Liquid supplies 13.5 mg of elemental zinc from zinc sulfate heptahydrate in purified water.

**FUNCTIONS**
Zinc is an essential trace element required for the activity of over 300 enzymes and is involved in most major metabolic pathways. Zinc participates not only in catalytic processes, but also in the structure and stability of some regulatory proteins.

General signs of human zinc deficiency indicate that zinc has important functions in maintaining immune function, reproduction, healthy skin, and growth.

Numerous studies support the fundamental role of zinc for normal immune response in humans. Immune cells must be able to rapidly divide in order to respond to daily challenges. Like all rapidly dividing cells, immune cells depend on adequate amounts of dietary zinc.

As a cofactor of the antioxidant enzyme superoxide dismutase (SOD), zinc can be considered an antioxidant nutrient. Zinc supplementation has been shown to increase the antioxidant activity of SOD, and provide increased free radical protection. Zinc deficiency is associated with increased oxidative damage.

Absorption of toxic heavy metals, especially cadmium and lead, is lower in individuals with high zinc status compared to those with low zinc status.

The body pool of readily available zinc appears to be small, which renders the body susceptible to deficiency and therefore dependent on a steady dietary supply of bioavailable zinc. While typical zinc intakes in U.S. adults are between 10 and 15 mg per day, which approach the RDA, intakes in the elderly are often low. Pregnant women are also at risk for zinc deficiency, since they have a higher requirement for this trace element.

Frequently, vegetarians and chronically depressed individuals have been found to have low zinc status.

**INDICATIONS**
Zinc Liquid may be a useful dietary adjunct for individuals wishing to supplement their diet with zinc.

**FORMULA** [WW #10240]

**Two Teaspoons Contain:**
Zinc (as Zinc Sulfate Heptahydrate) .................. 13.5 mg
Other Ingredients: Water, citric acid and potassium sorbate

**SUGGESTED USE**
Adults take 1-2 teaspoons daily with meals or as directed by physician.

**SIDE EFFECTS**
No adverse effects have been reported.

**STORAGE**
Store in a cool, dry place, away from direct light. Keep out of reach of children.

**REFERENCES**
Frederickson, CJ, Suh, SW, Silva, D, Thompson, RB. Importance of zinc in the central nervous system: the zinc-containing neuron. J Nutr 2000;130:1471S-83S.
MacDonald, RS. The role of zinc in growth and cell proliferation. J Nutr 2000;130:1500S-8S.