



ActivNutrients formulas are available in 120 capsules

- Vitamin/mineral supplement.
- Helps the body to metabolize carbohydrates, fats and proteins.
- Helps to maintain proper muscle function.
- Helps in connective tissue formation.
- Provides support for healthy glucose metabolism.
- Helps in wound healing.
- Helps to form red blood cells.
- Helps in the absorption and use of calcium and phosphorus.
- Helps in the function of the thyroid gland.
- Helps to prevent pantothenic acid, vitamin E, vitamin B6, riboflavin, thiamine, chromium, biotin and vitamin B12 deficiencies.
- Provitamin A to help maintain eyesight, skin membranes and immune function.
- Provitamin A to help in the development and maintenance of night vision, bones and teeth.
- Helps to produce and repair connective tissue.

## Discussion

It's a fact that good nutrition is a basis for wellness, and good nutrition usually translates into a stronger immune system and better health. An important aspect of good nutrition is micronutrition (vitamins and minerals).<sup>[1-4]</sup> Micronutrients play a role in converting food to energy; building and repairing tissues and DNA; manufacturing neurotransmitters, hormones, and other modulators in the body; breaking down and detoxifying xenobiotics and medications; and maintaining growth, reproduction, and health. According to research by the USDA and other organizations, the American diet is lacking micronutrients.<sup>[5-8]</sup> In fact, nine out of 10 Americans are missing key micronutrients. Common culprits may be food-production and storage techniques, poor food choices, and nutrient-depleting preparation methods. Whatever the cause, the bottom line is that children and adults are not consuming enough nutrient-rich foods to meet all their most basic vitamin and mineral needs.<sup>[6]</sup> What's more, the recommended intakes (e.g., %DV, DRIs, EARs, RDAs) are designed to meet the *minimum needs of some* healthy individuals; they are not designed to meet the requirements of all individuals, especially the chronically ill.\* There are numerous reasons to select ActivNutrients:

**Balanced Profile** Vitamins and minerals work synergistically and cooperatively when present in proper amounts. However, imbalances between micronutrients can disrupt this synergistic relationship, possibly leading to instances of competitive intestinal absorption or displacement at the metabolic/cellular level, which can produce relative excesses and insufficiencies. For this reason, ActivNutrients' balanced profile includes calcium and magnesium, zinc and copper, vitamins C and E, bioactive folate, vitamin B12 and B vitamin complex, beta-carotene, and trace elements.\*

**Bioavailability** The micronutrients are provided in bioavailable forms so that they can be better absorbed and utilized. A full complement of Albion® patented mineral chelates and complexes is contained in ActivNutrients. Albion is a recognized world leader in mineral amino acid chelate nutrition and manufactures highly bioavailable nutritional mineral forms that are validated by third-party research

and clinical studies. Not only does this formula contain natural vitamin E—which has been proven to be up to 100% more bioavailable than synthetic dl-alpha-tocopherol—but it also provides mixed tocopherols to more closely approximate how one might consume vitamin E in healthful foods.<sup>[9,10]</sup> Folate is provided as folic acid and 5-methyltetrahydrofolate (5-MTHF)—the most bioactive form of folate.<sup>[11]</sup> The form of 5-MTHF in this formula is Quatrefolic®<sup>†</sup>, which is proven to have greater stability, solubility, and bioavailability over calcium salt forms of 5-MTHF. Vitamins B2 and B6 are also provided in activated forms, and vitamin B12 is provided as methylcobalamin.\*

**Energy Production** ActivNutrients provides generous levels of B vitamins, which serve as prime coenzymes in glycolysis and oxidative phosphorylation, and as cofactors in amino acid and lipid metabolism. The balanced presence of B vitamins in this formula is essential to their cooperative functioning and excellent for those with stressful lifestyles.\*

**Antioxidant Protection** The broad spectrum of nutrients delivering antioxidant activity in the formula includes natural vitamin E, vitamin C, selenium, zinc, beta carotene, and trace elements. The balance of these provides for effective antioxidant functioning; they often work synergistically to regenerate each other and maintain consistent levels of antioxidant activity both intra- and extracellularly.\*

**Detoxification Support** Xenobiotics, including environmental pollutants and medications, must undergo biotransformation into molecules that can be easily excreted from the body. There are significant levels of bioavailable riboflavin, niacin, folate, and B12 present in the formula to support phase I detoxification, which is needed to contend with the increasing demand posed by xenobiotics and metabolic by-products. Beta carotene, vitamin C, tocopherols, selenium, copper, zinc, and manganese are present to protect tissues from reactive intermediates formed between phase I and phase II detoxification.\*

## ActivNutrients®

### Medicinal Ingredients (per vegetarian capsule)

Magnesium (Albion® Dimagnesium malate) .....	25 mg
Potassium (Potassium glycinate) .....	
Pantothenic acid (Calcium D-pantothenate).....	50 mg
Vitamin E (d-alpha Tocopheryl acid succinate).....	33.5 mg AT (50 IU)
Choline (Choline dihydrogen citrate) .....	9 mg
Vanadium (TRAACS® Vanadium amino acid chelate).....	187.5 mcg
Zinc (TRAACS® Zinc bisglycinate).....	3.25 mg
Vitamin A (Vitamin A palmitate) .....	(468.75 IU) 140.625 mcg
Beta carotene ( <i>Blakeslea trispora</i> ).....	(1406.25 IU) 843.75 mcg
Niacin .....	6 mg
Niacinamide .....	10 mg
Inositol .....	9 mg
Vitamin B6 (pyridoxal 5-phosphate) .....	5 mg
Riboflavin (Riboflavin 5'-phosphate sodium).....	5 mg
Ferrochel® Iron (Iron (II) bisglycinate).....	1.25 mg
Thiamine (Thiamine mononitrate).....	5 mg
Chromium (TRAACS® Chromium Nicotinate Glycinate Chelate).....	125 mcg
PABA (para-amino benzoic acid) .....	3.25 mg
Copper (TRAACS® Copper bisglycinate).....	250 mcg
Selenium (Albion® selenium glycinate).....	25 mcg
Vitamin C (Sodium Ascorbate, Calcium ascorbate, Potassium ascorbate, Zinc ascorbate) .....	62.5 mg
TRAACS® Manganese (Manganese bisglycinate) .....	125 mcg
Folate (Quatrefolic® (6S)-5-Methyltetrahydrofolic acid, glucosamine salt).....	100 mcg
Molybdenum (TRAACS® molybdenum glycinate chelate).....	12.5 mcg
Biotin.....	250 mcg
Iodine (Potassium iodide).....	25 mcg
Vitamin B12 (MecobalActive™ Methylcobalamin).....	125 mcg
Vitamin D3 (Cholecalciferol) .....	1.25 mcg (50 IU)
Calcium (DimaCal® - calcium malate) .....	25 mg

### Non-Medicinal Ingredients

Hypromellose, microcrystalline cellulose, ascorbyl palmitate, silica, medium chain triglycerides, mixed tocopherol concentrate.

### Recommended Dose

**Adults:** Take 1 capsule per day with food. Take a few hours before or after taking other medications.

Consult a healthcare practitioner prior to use if you are pregnant, breastfeeding, or taking sulfonamides.

Hypersensitivity (e.g. allergy) has been known to occur; in which case, discontinue use. Do not use if you have gastrointestinal ulceration or obstruction.

## Also Available in:

ActivNutrients® without Iron

*The same great formula as ActivNutrients, but without iron.*



Albion, DimaCal, Ferrochel, TRAACS and the Albion Medallion design are registered trademarks of Albion Laboratories, Inc. Malates covered by U.S. Patent



Quatrefolic® is a registered trademark of Gnosis S.p.A. Produced under US patent 7,947,662.

**MecobalActive™** is a trademark of Ferrer Health Tech.

The active form of B<sub>12</sub>

## References

1. Ames BN. A role for supplements in optimizing health: the metabolic tune-up. *Arch Biochem Biophys.* 2004 Mar 1;423(1):227-34. [PMID: 14989256]
2. Toffanello ED, Inelmen EM, Minicuci N, et al. Ten-year trends in vitamin intake in free-living healthy elderly people: the risk of subclinical malnutrition. *J Nutr Health Aging.* 2011 Feb;15(2):99-103. [PMID: 21365161]
3. Block G, Jensen CD, Norkus EP, et al. Usage patterns, health, and nutritional status of long-term multiple dietary supplement users: a cross-sectional study. *Nutr J.* 2007 Oct 24;6:30. [PMID: 17958896]
4. Fletcher RH, Fairfield KM. Vitamins for chronic disease prevention in adults: clinical applications. *JAMA.* 2002 Jun 19;287(23):3127-29. [PMID: 12069676]
5. Moshfegh AJ, Goldman JD, Ahuja JK, et al. U.S. Department of Agriculture, Agricultural Research Service. What we eat in America, Nhanes 2005-2006. Usual nutrient intakes from food and water compared to 1997 dietary reference intakes for vitamin D, calcium, phosphorus, and magnesium. [http://www.ars.usda.gov/SP2UserFiles/Place/12355000/pdf/0506/usual\\_nutrient\\_intake\\_vitD\\_ca\\_phos\\_mg\\_2005-06.pdf](http://www.ars.usda.gov/SP2UserFiles/Place/12355000/pdf/0506/usual_nutrient_intake_vitD_ca_phos_mg_2005-06.pdf) Published July 2009. Accessed February 22, 2011.
6. What we eat in America. WIN Notes. Weight Control Information Network. <http://win.niddk.nih.gov/notes/winter99/artcl6.htm>. Accessed July 22, 2011.
7. Milk Processor Education Program. What America's Missing: A 2011 Report on the Nation's Nutrient Gap. Why Milk.com. [http://www.whymilk.com/pdfs/what\\_americas\\_missing.pdf](http://www.whymilk.com/pdfs/what_americas_missing.pdf). Accessed August 3, 2011.
8. Alexy U, Libuda L, Mersmann S, Kersting M. Convenience foods in children's diet and association with dietary quality and body weight status. *Eur J Clin Nutr.* 2011 Feb;65(2):160-66. [PMID: 21139631]
9. Kiyose C, Muramatsu R, Kameyama Y, et al. Biodiscrimination of alpha-tocopherol stereoisomers in humans after oral administration. *Am J Clin Nutr.* 1997 Mar;65(3):785-89. [PMID: 9062530]
10. Burton GW, Traber MG, Acuff RV, et al. Human plasma and tissue alpha-tocopherol concentrations in response to supplementation with deuterated natural and synthetic vitamin E. *Am J Clin Nutr.* 1998 Apr;67(4):669-84. [PMID: 9537614]
11. Venn BJ, Green TJ, Moser R, et al. Comparison of the effect of low-dose supplementation with L-5-methyltetrahydrofolate or folic acid on plasma homocysteine: a randomized placebo-controlled study. *Am J Clin Nutr.* 2003 Mar;77(3):658-62. [PMID: 12600857]

Additional references available upon request

EXCLUSIVE • PATENTED



7 22537 51058 5