

### Clinical Applications

- » Foundational Nutrition\*
- » Basic Formula for Wellness\*
- » Supports Antioxidant Activity\*
- » Supports Detoxification\*
- » Supports Health in Individuals with Inadequate Nutrient Intake\*
- » Supports Energy Production and Stress Response\*

**mV Multi without Copper & Iron** features a premium, multivitamin/mineral blend of high-quality vitamin and mineral forms selected for optimum utilization. The comprehensive nutrient profile is delivered in a vegetarian capsule and supports foundational wellness; provides antioxidant activity with vitamins C and E, selenium, and beta-carotene; and supports detoxification.\*

### Discussion

Adequate nourishment is the foundation for overall health and wellness, and good nutrition typically translates into a stronger immune system and better health. The human body uses dietary proteins, fats, and carbohydrates, known as macronutrients, to provide the energy (calories) needed to fuel physiological functions. Vitamins and minerals, known as micronutrients, are needed in much smaller quantities. Unlike their macro counterparts, micronutrients don't give you energy, but they do participate 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.<sup>[1-3]</sup>

According to the Dietary Guidelines for Americans 2020-2025 (DGA) and additional data from the USDA and other agencies and organizations, the American diet lacks micronutrients.<sup>[4-6]</sup> Mass food production, storage techniques, poor food choices, and nutrient-depleting preparation methods may be contributing to this deficit. Furthermore, the percent daily values (%DV) for micronutrients are based on the minimum amount needed to meet the basic need of a healthy person of a specific age and gender group. The %DV is not always indicative of the amount needed for optimal functioning of all individuals, especially those who are chronically ill.<sup>[3,5,7]</sup>

When considering where American diets fall short in nutrients, the DGA shows that low intakes of potassium, dietary fiber, calcium, and vitamin D are a public health concern.<sup>[4]</sup> Other nutrients that have notably low intakes or require increased intake subsequent to life stage include vitamins A, B6, B12, C, E, and folate; the mineral magnesium; and choline.<sup>[4,8,9]</sup> Data from the National Health and Nutrition Examination Surveys (NHANES) suggest a pervasive deficiency in A, C, D, E, and zinc—nutrients linked to immune health.<sup>[6]</sup> Inadequate intake of most of these nutrients is attributable to an overall unhealthy eating pattern due to low intakes of nutrient-rich foods such as vegetables, fruits, whole grains, and dairy that contain these nutrients.<sup>[4]</sup> In cases when food is not enough for an individual to get adequate micronutrients, multivitamin/mineral supplements are recognized as being of value to help fill dietary nutritional shortfalls.<sup>[2,6,7,10-12]</sup>

mV Multi without Copper & Iron is designed to meet the foundational nutrition needs for a variety of protocols and life

stages. This formula provides:

**A Balanced Profile** Vitamins and minerals work cooperatively when present in sufficient 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, mV Multi without Copper & Iron features a balanced nutrient profile that includes calcium and magnesium, vitamins C and E, bioactive folate, vitamin B12, B vitamin complex, beta-carotene, and trace elements.\*

**Bioavailable Nutrient Forms** The micronutrients are provided in bioactive forms so that they can be adequately absorbed and utilized. mV Multi without Copper & Iron contains a copper- and an iron-free complement of Albion® patented mineral chelates and complexes. 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. mV Multi without Copper & Iron also contains natural vitamin E, clinically shown to be more bioavailable than synthetic dl-alpha-tocopherol, as well as mixed tocopherols to more closely approximate how much vitamin E an individual might gain when consuming healthful foods.<sup>[13,14]</sup> The folate source in this formulation is methyltetrahydrofolate (5-MTHF)—the most bioactive form of folate<sup>[15]</sup>—in the form of Quatrefolic®, which has greater stability, solubility, and bioavailability over calcium salt forms of 5-MTHF. Supplementing with bioactive 5-MTHF facilitates the bypassing of steps in folate metabolism. This may be especially beneficial to individuals with genetic variations in folate metabolism.<sup>[16,17]</sup> Vitamins B2, B6, and B12 are provided in metabolically active forms.\*

**Support for Energy Production and Stress Response** ActivNutrients without Copper & Iron 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.<sup>[18-20]</sup> Sufficient levels of the B vitamins are critical for energy production and cell growth and division, and they have many other essential roles in the body, including support for nervous system function.<sup>[21]</sup> The balanced presence of B vitamins is essential to their cooperative functioning and excellent for individuals with stressful lifestyles.\*

\*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.

**Antioxidant Protection** Vitamins E and C, selenium, zinc, beta-carotene, and trace elements provide broad-spectrum antioxidant activity.<sup>[22,23]</sup> Their combined presence supports their ability 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. Detoxification of xenobiotics is a complex process that requires micronutrients, phytonutrients, energy, and adequate antioxidant support for safe and effective completion.<sup>[23-25]</sup> There are significant levels of bioavailable riboflavin, niacin, folate, and B12 present in

**ActivNutrients without Copper & Iron** to support phase I detoxification. Beta-carotene, vitamin C, tocopherols, selenium, zinc, and manganese are present to support tissues when reactive intermediates are formed between phase I and phase II detoxification.\* ActivNutrients without Copper & Iron offers foundational multivitamin and mineral support designed to compensate for dietary nutritional shortfalls and nourish optimal wellness. This formulation is iron-free for individuals who typically do not need to supplement their diet with iron, including most men and post-menopausal women. For those who have been recommended to avoid supplemental copper due to toxicity from external exposure or from impaired metabolic pathways leading to copper accumulation, this formulation contains no added copper.\*<sup>[26]</sup>

#### mV Multi without Copper & Iron Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
Vitamin A (75% as natural beta-carotene and 25% as retinyl palmitate)	1,120 mcg	124%
Vitamin C (as sodium ascorbate, potassium ascorbate, zinc ascorbate, and calcium ascorbate)	125 mg	139%
Vitamin D3 (cholecalciferol)	2.5 mcg (100 IU)	13%
Vitamin E (as d-alpha-tocopheryl succinate)	67 mg	447%
Thiamin (as thiamine mononitrate)	10 mg	833%
Riboflavin (as riboflavin 5'-phosphate sodium)	10 mg	769%
Niacin (as niacinamide and niacin)	32 mg	200%
Vitamin B6 (as pyridoxal 5'-phosphate)	10 mg	588%
Folate (170 mcg DFE as (6S)-5-methyltetrahydrofolic acid, glucosamine salt <sup>S1</sup> and 170 mcg DFE as calcium folinate)	340 mcg DFE	85%
Vitamin B12 (as methylcobalamin)	250 mcg	10,417%
Biotin	500 mcg	1,667%
Pantothenic Acid (as d-calcium pantothenate)	100 mg	2,000%
Choline (as choline dihydrogen citrate)	18 mg	3%
Calcium (as di-calcium malate <sup>S2</sup> , d-calcium pantothenate, and calcium ascorbate)	50 mg	4%
Iodine (as potassium iodide)	50 mcg	33%
Magnesium (as di-magnesium malate) <sup>S2</sup>	50 mg	12%
Zinc (as zinc bisglycinate chelate) <sup>S2</sup>	6.5 mg	59%
Selenium (as selenium glycinate complex) <sup>S2</sup>	50 mcg	91%
Manganese (as manganese bisglycinate chelate) <sup>S2</sup>	0.25 mg	11%
Chromium (as chromium nicotinate glycinate chelate) <sup>S2</sup>	250 mcg	714%
Molybdenum (as molybdenum glycinate chelate) <sup>S2</sup>	25 mcg	56%
Potassium (as potassium glycinate complex <sup>S2</sup> and potassium ascorbate)	49.5 mg	1%
Inositol 18 mg**	18 mg	**
PABA (para-aminobenzoic acid)	6 mg	**
Vanadium (as vanadium nicotinate glycinate chelate) <sup>S2</sup>	375 mcg	**

\*\* Daily Value (DV) not established.


**Other Ingredients:** Capsule (hypromellose and water), microcrystalline cellulose, ascorbyl palmitate, silica, medium-chain triglyceride oil, and mixed tocopherols.


**DIRECTIONS:** Take two capsules twice daily, or as directed by your healthcare professional.

Consult your healthcare professional prior to use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

**STORAGE:** : Keep closed in a cool, dry place out of reach of children.

**FORMULATED TO EXCLUDE:** : Wheat, gluten, yeast, soy, dairy products, fish, shellfish, peanuts, tree nuts, egg ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

 **Quatrefolic** S1. Quatrefolic® is a registered trademark of Gnosis S.p.A. Produced under U.S. patent 7,947,662.

 S1. Albion, TRAACS and the Albion Medallion design are registered trademarks of Albion Laboratories, Inc. Malate covered by U.S. Patent 6,706,904 and patents pending.



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**Additional references available upon request**

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