ActivNutrients® without Copper & Iron Multivitamin Powder

Great-Tasting, Flexible Dosing for All Ages



Available in Fruit Punch

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*

ActivNutrients® without Copper and Iron Multivitamin Powder features a premium, multivitamin/mineral blend of high-quality vitamin and mineral forms selected for optimum utilization. The comprehensive nutrient profile is delivered in an easy-to-use powder for children and adults to support foundational wellness; provide antioxidant activity with vitamins C and E, selenium, and beta-carotene; and support 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.*[1-3]

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. [4-6] 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.* (\$3.5.7)

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. [4] 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. [4,8,9] 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. [6] 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. [4] 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. *[2,6,7,10-12]

ActivNutrients without Copper & Iron Multivitamin Powder is designed to meet the foundational nutrition needs for a variety of protocols and life stages. It is an easy-to-use powdered formula that allows for flexible dosing and is suitable for all ages. 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, ActivNutrients without Copper & Iron Multivitamin Powder 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. ActivNutrients without Copper & Iron Multivitamin Powder contains a copper- and an ironfree 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. ActivNutrients without Copper & Iron Multivitamin Powder 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.[13,14] The folate source in this formulation is methyltetrahydrofolate (5-MTHF)—the most bioactive form of folate^[15]—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.[16,17] Vitamins B2, B6, and B12 are provided in metabolically active

Support for Energy Production and Stress Response ActivNutrients without Copper & Iron Multivitamin Powder 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.^[18-20] 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.^[21] The balanced presence of B vitamins is essential to their cooperative functioning and excellent for individuals with stressful lifestyles.*

Antioxidant Protection Vitamins E and C, selenium, zinc, beta-carotene, and trace elements provide broad-spectrum antioxidant activity. [22,23] Their combined presence supports their ability to regenerate each other and maintain consistent levels of antioxidant activity both intra- and extracellularly.*

Continued on next page

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. ^[23-25] There are significant levels of bioavailable riboflavin, niacin, folate, and B12 present in ActivNutrients without Copper & Iron Multivitamin Powder 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 Multivitamin Powder 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.*[26]

ActivNutrients® without Copper & Iron Multivitamin Powder Supplement Facts

Serving Size: 2 Scoops (about 6.1 g)

	Amount Per Serving	%DV for Children 1 through 3 Years of Age	%DV for Adults and Children 4 or more Years of Age
Calories	20		
Total Carbohydrate	4 g	3%‡	1%⁺
Vitamin A (600 mcg (76%) as retinyl palmitate and 190 mcg (24%) as natural beta-carotene and alpha-carotene)	790 mcg	263%	88%
Vitamin C (ascorbic acid)	600 mg	4,000%	667%
Vitamin D3 (cholecalciferol)	40 mcg (1600 IU)	267%	200%
Vitamin E (as d-alpha tocopheryl succinate)	100 mg	1,667%	667%
Thiamin (as thiamine HCI)	12.5 mg	2,500%	1,042%
Riboflavin (as riboflavin and riboflavin 5'-phosphate sodium)	10 mg	2,000%	769%
Niacin (as niacinamide)	20 mg	333%	125%
Vitamin B6 (as pyridoxine HCl and pyridoxal 5'-phosphate)	5 mg	1,000%	294%
Folate (as [6S]-5-methyltetrahydrofolic acid glucosamine salt) ^{S1}	680 mcg DFE	453%	170%
Vitamin B12 (as methylcobalamin)	100 mcg	11,111%	4,167%
Biotin	300 mcg	3,750%	1,000%
Pantothenic Acid (as d-calcium pantothenate)	50 mg	2,500%	1,000%
Choline (as choline dihydrogen citrate)	30 mg	15%	5%
Calcium (as calcium citrate malate)s2	100 mg	14%	8%
Iodine (as potassium iodide)	150 mcg	167%	100%
Magnesium (as dimagnesium malate)s2	125 mg	156%	30%
Zinc (as zinc bisglycinate chelate) ^{S2}	15 mg	500%	136%
Selenium (as selenium glycinate complex) ^{S2}	100 mcg	500%	182%
Manganese (as manganese bisglycinate chelate) ^{S2}	0.5 mg	42%	22%
Chromium (as chromium nicotinate glycinate chelate) ^{S2}	125 mcg	1,136%	357%
Molybdenum (as molybdenum glycinate chelate) ^{S2}	100 mcg	588%	222%
Sodium	45 mg	3%	2%
Potassium (as potassium glycinate complex) ^{S2}	66 mg	2%	1%
Natural Mixed Tocopherols	140 mg	**	**
Lemon Bioflavonoids (from Citrus x limon)(peel)	60 mg	**	**
Inositol	15 mg	**	**
Natural Mixed Carotenoids Typical Composition:	2.59 mg	**	**
Beta-Carotene Alpha-Carotene	1.85 mg 925 mcg	**	**
Gamma-Carotene	9.25 mcg	**	**
Lycopene	2.8 mcg	**	**
Boron (as bororganic glycine) ^{S2}	750 mcg	**	**
Vitamin K2 (as menaquinone-7)	30 mcg	**	**
†Percent Daily Values are based on a 2,000 calorie diet ‡Percent Daily Values are based on a 1,000 calorie diet			

** Daily Value (DV) not established.

Other Ingredients: Beet juice concentrate (color), natural flavors, citric acid, stevia leaf extract, malic acid, and sea salt.

DIRECTIONS: Children 1-3: a half scoop twice daily; children 4 or more: one scoop twice daily; adults: three to four scoops divided into two daily doses. Mix thoroughly in 8 oz of water and consume, or use 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 protein, dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

References

- Ames BN. Arch Biochem Biophys. 2004;423(1):227-234. doi:10.1016/j. abb.2003.11.002
- Block G, Jensen CD, Norkus EP, et al. Nutr J. 2007;6:30. doi:10.1186/1475-2891-6-30
- Fletcher RH, Fairfield KM. JAMA. 2002;287(23):3127-3129. doi:10.1001/jama.287.23.3127
- U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans*, 2020-2025. 9th ed. December 2020. https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_ Guidelines_for_Americans_2020-2025.pdf
- Blumberg JB, Bailey RL, Sesso HD, et al. *Nutrients*. 2018;10(2):248. doi:10.3390/nu10020248
- Reider CA, Chung RY, Devarshi PP, et al. Nutrients. 2020;12(6):1735. doi:10.3390/nu12061735
- Multivitamin/Mineral Supplements Fact Sheet. National Institutes of Health. Updated October 12, 2021. Accessed November 29, 2021. https://ods.od.nih. gov/factsheets/MVMS-HealthProfessional/?print=1
- Bird JK, Murphy RA, Ciappio ED, et al. Nutrients. 2017;9(7):655. doi:10.3390/ nu9070655
- Multivitamin/Mineral (MVM) Inclusion in the Supplemental Nutrition Assistance Program (SNAP). Council for Responsible Nutrition; 2017. Accessed December 6, 2021. https://www.crnusa.org/multivitamin-mineral-mvm-inclusionsupplemental-nutrition-assistance-program-snap
- Blumberg JB, Frei BB, Fulgoni VL, et al. Nutrients. 2017;9(8):849. doi:10.3390/ nu9080849
- Blumberg JB, Cena H, Barr SI, et al. Clin Ther. 2018;40(4):640-657. doi:10.1016/j.clinthera.2018.02.014
- Marra MV, Bailey RL. Position of the Academy of Nutrition and Dietetics: micronutrient supplementation. J Acad Nutr Diet. 2018;118(11):2162-2173. doi:10.1016/j.jand.2018.07.022
- Kiyose C, Muramatsu R, Kameyama Y, et al. Am J Clin Nutr. 1997;65(3):785-789. doi:10.1093/ajcn/65.3.785
- Burton GW, Traber MG, Acuff RV, et al. Am J Clin Nutr. 1998;67(4):669-684. doi:10.1093/ajcn/67.4.669
- Venn BJ, Green TJ, Moser R, et al. Am J Clin Nutr. 2003;77(3):658-662. doi:10.1093/ajcn/77.3.658
- **16.** Prinz-Langenohl R, Brämswig S, Tobolski O, et al. *Br J Pharmacol.* 2009;158(8):2014-2021. doi:10.1111/j.1476-5381.2009.00492.x
- Lamers Y, Prinz-Langenohl R, Brämswig S, et al. Am J Clin Nutr. 2006;84(1):156-161. doi:10.1093/ajcn/84.1.156
- Calderón-Ospina CA, Nava-Mesa MO. CNS Neurosci Ther. 2020;26(1):5-13. doi:10.1111/cns.13207
- 19. Kennedy DO. Nutrients. 2016;8(2):68. doi:10.3390/nu8020068
- Depeint F, Bruce WR, Shangari N, et al. Chem Biol Interact. 2006;163(1-2):94-112. doi:10.1016/j.cbi.2006.04.014
- B Vitamins. National Library of Medicine. MedlinePlus. Last reviewed September 23, 2021. Accessed December 2, 2021. https://medlineplus.gov/bvitamins.html
- **22.** Jayedi A, Rashidy-Pour A, Parohan M, et al. *Adv Nutr.* 2018;1;9(6):701-716. doi:10.1093/advances/nmy040
- 23. Doyle ME, Pariza MW. In: Kotsonis FN, Mackey MA, eds. *Nutritional Toxicology*. 2nd ed. Taylor & Francis; 2002:1-30. https://doi.org/10.1201/9781420025088
- 24. Liska DJ. Altern Med Rev. 1998;3(3):187-98.
- Hodges RE, Minich DM. J Nutr Metab. 2015;2015:760689. doi:10.1155/2015/760689
- Copper. Linus Pauling Institute Micronutrient Information Center, Oregon State University. Updated January 2014. Accessed May 12, 2022. https://lpi. oregonstate.edu/mic/minerals/copper

Additional references available upon request





