



GENESTRA
BRANDS®

Liquid Multi Vite Min

Vitamin-Mineral Supplement



Ten vitamins and 11 minerals for optimal health

- Helps to support eye health in conditions such as cataracts and age-related macular degeneration
- Helps to maintain healthy bones, hair, nails, skin and immune function
- Provides support for healthy glucose metabolism
- **Improved**
 - Formulation update based on current nutritional guidelines
 - Added nutrients, including lutein, zeaxanthin and vitamin K₂
 - Now available in a delicious natural lemon-cardamom flavour
 - Increased bottle size – now providing one-month supply per bottle

Liquid Multi Vite Min is a great-tasting combination of vitamins, minerals and antioxidants for the maintenance of good health. Available in a convenient, once-daily format, it can help adults meet daily recommended micronutrient levels. It provides seven B vitamins, which are involved in energy metabolism through their roles as cofactors.¹ Also included are vitamins D and K, which help support bone formation and strength. Vitamin D has an additional role in helping to maintain immune function by mediating the proliferation and activity of immune cells.² The minerals zinc, magnesium and manganese are included to further support bone health. Zinc also contributes to the maintenance of healthy hair, nails, skin and immune function, while magnesium has additional effects in maintaining proper muscle function. This formula also provides a variety of antioxidants, such as vitamin E and selenium, to help limit oxidative damage to cells. Lutein and zeaxanthin, natural carotenoid pigments in the lens and macula of the retina, further offer antioxidant support to maintain good health. Zeaxanthin provides key protection against oxidative damage in the eye produced by metabolic activity and light exposure.³ Zeaxanthin also helps to support eyesight in conditions such as cataracts and age-related macular degeneration, reduce the risk of developing cataracts, and improve macular pigment optical density.

EACH TABLESPOON (15 ml) CONTAINS:

Vitamin D (cholecalciferol)	20 mcg (800 IU)
Vitamin E (d-alpha tocopherol)	15 mg AT
Vitamin K ₂ (menaquinone-7)	20 mcg
Thiamine (thiamine hydrochloride)5 mg
Riboflavin5 mg
Niacinamide	20 mg
Vitamin B ₆ (pyridoxine hydrochloride)5 mg
Vitamin B ₁₂ (hydroxocobalamin acetate, methylcobalamin)25 mcg
Biotin	300 mcg
Pantothenic Acid (d-panthenol)	10 mg
Calcium (calcium lactate)65 mg
Iodine (potassium iodide)150 mcg
Magnesium (magnesium gluconate)	20 mg
Zinc (zinc citrate)	20 mg
Selenium (sodium selenate)	100 mcg
Copper (copper gluconate)	1 mg
Manganese (manganese gluconate)	2.5 mg
Chromium (chromium nicotinate)	100 mcg
Molybdenum (molybdenum citrate)	50 mcg
Potassium (potassium gluconate)	50 mg
Choline (choline chloride)55 mg
Vanadium (vanadium citrate)	100 mcg
Inositol5 mg
Lutein (from <i>Tagetes erecta</i> herb flowering oleoresin)5 mg
Zeaxanthin (from <i>Tagetes erecta</i> herb flowering oleoresin)	1 mg

Non-Medicinal Ingredients: Purified water, glycerin, natural flavours, citric acid, medium chain triglycerides, xanthan gum, potassium sorbate, rebaudioside A (stevia leaf extract), rosemary leaf extract, natural mixed tocopherols

Recommended Adult Dose: Take one tablespoon daily with a fat-containing meal, a few hours before or after taking other medications or natural health products, or as recommended by your healthcare practitioner. Shake well before each use.

Product Size: 450 ml Liquid

Product Code: 03122A

NPN 80080341



REFERENCES

1. Combs, GF. (2012). The Vitamins (4th ed.). USA: Elsevier.
2. Mora, JR, Iwata, M, von Andrian, UH. Nat Rev Immunol. 2008; 8(9): 685-698.
3. Ma, L, Lin, XM. J Sci Food Agric. 2010; 90: 2-12.

Seroyal.ca | 1.800.263.5861

© 2018 Seroyal. All rights reserved.

The information contained herein is for informational purposes only and does not establish a doctor-patient relationship. Please be sure to consult your physician before taking this or any other product. Consult your physician for any health problems. This product may not be right for everyone. Always read and follow the label.

Liquid Multi Vite Min

Vitamin-Mineral Supplement

Scientific Rationale:

Research has reported that many Canadians do not meet recommended micronutrient intakes.¹ In fact, low intakes of nutrient-rich foods combined with sedentary lifestyles have resulted in adults meeting or exceeding energy requirements, while failing to meet vitamin and mineral recommendations.^{1,2} Health Canada has identified calcium, potassium, magnesium and vitamin D among nutrients with high inadequate intakes.¹ Individuals at a particular risk of vitamin D inadequacy include those with little sunlight exposure, the elderly and dark skinned-individuals (due to reduced ability to synthesize vitamin D from sunlight).² Similarly, due to a decreased ability to digest food-bound B₁₂ with age, adults over 50 may be at an increased risk of low vitamin B₁₂ levels.¹

Regular multivitamin consumption can help fill in nutrient gaps that are not met through the diet alone.² These supplements may be effective in increasing nutrient intakes to help meet recommended values.² Research has reported that multivitamins can be particularly important in decreasing the prevalence of inadequacy for nutrients, including vitamins E and B₆ and the mineral zinc.² Liquid Multi Vite Min provides a comprehensive combination of 10 vitamins and 11 minerals to help maintain good health.

Vitamin D is one of the major nutrients involved in bone health.³ It plays an essential role in building strong bones and teeth as it helps in the absorption of calcium, a primary structural component of the skeleton.³ Vitamin D also helps to stimulate bone mineralization and maturation, while regulating the differentiation of cells present in bone.³ Furthermore, vitamin D receptors are present on most immune cells, demonstrating its importance in maintaining immune function.⁴ Vitamin K is also involved in skeletal health as it helps in the maintenance of bones, and adequate intake levels are required for bone formation and strength.³ Vitamin K₂ is provided as menaquinone-7, a more bioavailable and effective form than vitamin K₁ (likely due to its longer half-life time).⁵

B vitamins play an important role in energy metabolism as cofactors for numerous biochemical reactions in the body.⁶ Vitamins B₆, B₁₂ and riboflavin are particularly critical in the metabolism of the amino acid metabolite homocysteine.⁴ Vitamin B₁₂ has an additional role supporting immune system function and is involved in red blood cell formation alongside copper and vitamin B₆. In addition, biotin helps maintain

cognitive function and healthy hair, nails, mucous membranes, and skin. As a result, low levels of biotin can result in hair loss and dry, itchy or red skin.⁴

Furthermore, this formula contains magnesium, an electrolyte for the maintenance of good health. In addition to its role in bone health, magnesium helps to maintain proper muscle function, including the heart muscle. Zinc is included for its roles in energy metabolism and bone health. Zinc is also critical to the immune system as a cofactor of thymulin, a hormone involved in T cell maturation and differentiation, and is required for proper macrophage development, natural killer cell activity and cytokine production.⁶⁻⁸ Zinc has additional roles in helping to maintain healthy hair, nails, skin, normal DNA synthesis and normal acid-base metabolism. Also included are iodine to help in the function of the thyroid gland, plus chromium to provide support for healthy glucose metabolism.

Additionally, Liquid Multi Vite Min contains choline and inositol, two vitamin-related compounds that have important roles in essential physiological functions.⁴ Choline is a precursor to the methyl donor betaine, the key neurotransmitter acetylcholine and phospholipids, structural compounds in the cell membrane.⁴ It also helps support liver function by promoting the export of very low density lipoproteins (VLDL) from the liver.⁴ Inositol is also an important component of cell membranes and is involved in the phosphatidylinositol second messenger system, which is especially important in the central nervous system.⁴

Liquid Multi Vite Min also provides a combination of antioxidants, such as vitamin E and selenium, to help limit oxidative damage to cells. Included in this antioxidant blend are lutein and zeaxanthin, natural carotenoid pigments that are highly concentrated within the lens and macula of the retina.⁹ As a primary carotenoid in these areas, zeaxanthin has a unique ability to protect the eye against oxidative damage produced by metabolic activity and light exposure, which can accumulate over time.⁹ Zeaxanthin has been shown to help scavenge free radicals and inhibit lipid peroxidation to support eye health, while absorbing and attenuating the damaging effects of blue light before it can reach photoreceptors.⁹ Zeaxanthin also helps to support eyesight in conditions such as cataracts and age-related macular degeneration, reduce the risk of developing cataracts and improve macular pigment optical density.

REFERENCES

1. Health Canada. (2012). Do Canadian Adults Meet Their Nutrient Requirements Through Food Intake Alone? Retrieved from: <<http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/art-nutr-adult-eng.php>>.
2. American Dietetic Association. J Am Diet Assoc. 2009; 109: 2073-2085.
3. Weichselbaum, E, Buttriss, JL. Nutr Bull. 2014; 39, 9-73.
4. Combs, GF. (2012). The Vitamins (4th ed.). USA: Elsevier.
5. Schurgers, LJ, Teunissen, KJF, Hamulyak, K, Knapen, MHJ, Vik, H, Vermeer, C. Blood. 2007; 109(8): 3279-3283.
6. Panel on Micronutrients, Subcommittees on Upper Reference Levels of Nutrients and of Interpretation and Use of Dietary Reference Intakes and the SC on the SE of DRI. (2001). Washington, DC: National Academies Press.
7. Chasapis, CT, Loutsidou, AC, Spiliopoulou, CA, Stefanidou, ME. Arch Toxicol. 2012; 86(4): 521-34.
8. Prasad, AS. Adv Nutr. 2013; 4(2): 176-190.
9. Ma, L, Lin, XM. J Sci Food Agric. 2010; 90: 2-12.

Seroyal.ca | 1.800.263.5861



GENESTRA
BRANDS®

© 2018 Seroyal. All rights reserved.

The information contained herein is for informational purposes only and does not establish a doctor-patient relationship. Please be sure to consult your physician before taking this or any other product. Consult your physician for any health problems. This product may not be right for everyone. Always read and follow the label.