Vitamin D3+K2

ESSENTIAL NUTRITION*





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Product Overview*

- Vitamin D in its preferred bioactive dietary form D3
- · Vitamin K2 as MenaquinGold® Natural Vitamin K2 -7
- \cdot Bone, cardiometabolic and immune support
- All-natural excipients
- · 3rd party potency tested

Product Summary*

Vitamins D3 & K2 are fat-soluble vitamins that play a multitude of roles within the body and often, their effects complement one another. Each vitamin plays a key role in building and maintaining bone structure & supporting various cardiometabolic processes.¹⁻⁷ Additionally, vitamin D contributes to overall immune function and some lines of research suggest that vitamin K may as well. ⁸⁻¹³

Despite Vitamin D3 and K2 contributing to many physiological processes within the body, many individuals are deficient in these two critical nutrients. In the case of vitamin D, this deficiency often results from a lack of sunlight, genetics and/or poor dietary intake levels.¹⁴ Additionally, antiepileptic drugs, weight loss medications like orlistat, and glucocorticoids may lead to vitamin D depletion.¹⁵⁻¹⁷ Regarding vitamin K2, those taking statins may be at risk for developing a deficiency in this critical micronutrient.^{18,19}

For this reason, Evolve Wellness created Vitamin D3 +K2, which, per capsule, contains 62.5 micrograms (mcg) (2500 International Units (IU)) of Vitamin D as D3 and 90 mcg of Vitamin K2 in its MK-7 form as MenaquinGold® Natural Vitamin K2 -7. Evolve Wellness specifically chose these forms of each respective vitamin due to their bioavailability and biological activity profiles. ^{20,21}

Please refer to 'The Science' Section for a more in-depth review on the science supporting Vitamin D and K2 supplementation.

Target Market/Population*

A wide range of individuals may benefit from consumption of Evolve Wellness's Vitamin D3+K2 including those with limited sunlight exposure, limited dietary consumption of these vitamins and/or taking medications which may deplete Vitamin D or K2.

Suggested Use

Take 1-2 servings per day with a meal or as recommended by a health care professional.

The Science

Bone Support*

Vitamin D has long been recognized as a key nutrient in maintaining and improving overall bone structure. Vitamin D achieves this through increasing calcium absorption from the gut.⁴ In cases of vitamin D deficiency and insufficient calcium absorption, the body releases parathyroid hormone which leads to calcium resorption from bones, into the blood stream; thus weakening overall bone structure.

Vitamin K2 also supports proper bone structure through its ability to activate, via carboxylation, osteocalcin as well as various other proteins responsible for maintaining bone mineralization. In a 3 year study involving 244 post menopausal women, Knapen et al. found that supplementing with 180 mcg/d of Vitamin K2 (as MK-7) reduced both circulating uncarboxylated osteocalcin as well as bone loss in post-menopausal women vs. those taking a placebo.¹

Immune Support*

Vitamin D plays a critical role in both innate and adaptive immune responses.⁸ Specific to the innate immune system, vitamin D allows for the antimicrobial/antiviral activity of macrophage & monocyte function as well as modulates the differentiation of antigen-presenting cells. With respect to the adaptive immune response, vitamin D influences the actions of both T- and B- lymphocyte via a variety of mechanisms including cytokine production.

The role of vitamin K2 in immune function is a bit less defined. However, in vitro based research has shown vitamin K2 as MK-7 to inhibit TNFa, IL-1a, and IL-1b gene expression in human monocyte derived macrophages.¹⁰ An immunomodulatory role for vitamin K2 on T-cell activity has also been observed in in-vitro studies.^{12,13}

Cardiometabolic Support*

Vitamin D deficiency has been associated with a variety of cardiometabolic issues including insulin resistance and various cardiovascular conditions.⁷ In a study involving 20,360 US Adults, it was found that having vitamin D levels < 20 ng/ml was associated with significantly lower serum HDL-C (-5.1%), higher directly measured LDL-C (+13.5%) and TG (+26.4%) when compared to individuals with vitamin D levels > 30ng/ml.²²

Vitamin K2 also appears to play a role in maintenance of normal cardiometabolic function. Knapen et al found 180 mcg per day of Vitamin K2 improved markers of arterial stiffness in healthy post-menopausal women.⁵ Additionally, studies involving between 100 mcg/d and 360 mcg/d of vitamin K2 for 12 weeks has been shown to support measures of glycemic control. ²³⁻²⁵

Supplement Facts

Serving Size: 1 Capsule Servings Per Container: 60

Amount Per Serving		%DV
Vitamin D3 (Cholecalciferol)	62.5mcg (2500IU)	310%
Vitamin K2 (as menaquinone [MK-7, MenaquinGold ®) (from Non-GMO Chickpea)	90mcg	75%

Other Ingredients: Rice Flour, Vegetable Capsule (HPMC)

Manufactured for: Hometown Evolve Wellness 333 S Lowville Road, Rio, WI 53960 (920) 464-4600 | Rev2



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