

ADK Evail™

HIGHLY BIOAVAILABLE, SYNERGISTIC COMBINATION OF VITAMINS A, D, AND K, WITH VITAMIN E ISOMERS†

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Benefits†

- Avoiding imbalances of fat-soluble vitamins when given at clinically useful doses
- Supporting cardiovascular health and arterial strength and elasticity¹
- Balancing and supporting immune system function²
- Optimizing calcium absorption and usage^{3,4}
- Promoting density and strength of bones and teeth^{3,5}
- Enhancing antioxidant protection⁶
- Facilitating fat-soluble vitamin absorption, a special concern in fat malabsorptive disorders⁷⁻⁹
- Supporting the regulation and metabolism of thyroid hormones¹⁰
- Promoting health of skin, hair, and nails^{4,11,12}
- Maintaining healthy eyesight, including night vision¹³⁻¹⁵

Dosing Guidelines†

Take one softgel per day or as directed by your health-care practitioner.

Contraindications: Vitamin K may adversely interact with anticoagulation drugs known as blood thinners. Patients taking these medications should be medically supervised while taking ADK Evail™.

Supplement Facts

Serving Size 1 softgel

Amount Per Serving	% Daily Value	
Vitamin A (as Palmitate)	1515 mcg RAE	167%
Vitamin D (as Cholecalciferol)	125 mcg (5000 IU)	625%
Vitamin K (as Vitamin K1 Phytonadione 1000 mcg; Vitamin K2 Menaquinone-4 50 mcg)	1050 mcg	875%
Vitamin E Isomers (as DeltaGold® delta and gamma tocotrienols)	50 mg	*
Trans-Geranylgeraniol (as GG-Gold™)	5 mg	*

*Daily Value not established.

Other Ingredients: Bovine gelatin, purified water, glycerine, medium chain triglycerides, annatto (color), beeswax, quillaja extract.

Contains fish (cod).

Highlights†

- Ideal balance of vitamins A, D, and K, and vitamin E isomers in one convenient softgel†
- Optimized bioavailability using Evail™ technology with quillaja extract and GG-Gold™
- Vitamin D is supplied as cholecalciferol (vitamin D3), the same form synthesized endogenously when the skin is exposed to ultraviolet B rays¹⁵
- Vitamin D promotes calcium absorption in the intestinal tract and helps modulate innate and adaptive immune system responses^{2,4,16}
- Preformed vitamin A (retinyl palmitate) supports epithelial cells of the skin, respiratory, gastrointestinal, and urinogenital tracts — the body's front line of defense against infection^{14,15}
- Multipronged vitamin K support — supplied directly as vitamins K1 (phytonadione) and K2 (menaquinone-4 [MK-4]), in addition to MK-4 derived from the conversion of K1 with aid from geranylgeraniol (GG)¹⁷
- Vitamins K1 and K2 (as MK-4) help activate osteocalcin, which binds calcium and helps direct it into bones, as well as MGP (matrix-GLA protein) which averts calcium deposition into arteries, and other tissues such as lung or joint tissue^{3,17-19}
- DeltaGold® naturally derived delta- and gamma-tocotrienols (vitamin E isomers) have superior antioxidant potential⁶
- One softgel delivers efficacious amounts of vitamins A, D, E, and K – substantially higher than the Dietary Reference Intakes (DRI) determined by the Institute of Medicine's Food and Nutrition Board – for optimal health

Nutrient Dosage Ranges based on DRI

Vitamin	Dietary Reference Intakes (DRI) for Adults
Vitamin A	900 mcg RAE (male), 700 mcg RAE (female), 770 mcg RAE (pregnancy), 1,300 mcg RAE (lactation)
Vitamin D	15 mcg (600 IU) (male, female, pregnancy, lactation), 20 mcg (800 IU) (adults >70 years)
Vitamin K	120 mcg (male), 90 mcg (female, pregnancy, lactation)
Vitamin E	15 mcg (male, female, pregnancy), 19 mg (lactation)

RAE = retinol activity equivalents

To contact Designs for Health, please call us at (860) 623-6314, or visit us on the web at www.designsforhealth.com

†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.

Biological Actions

Designs for Health's ADK Evail™ provides a synergistic combination of fat-soluble vitamins featuring 5,000 IU of vitamin D3, along with efficacious amounts of vitamin A, vitamin K (including K1 and K2), and vitamin E isomers in one convenient softgel serving. ADK Evail™ is manufactured using Designs for Health's Evail™ technology, a process that utilizes quillaja extract and a patented form of geranylgeraniol (as GG-Gold™) extracted from annatto seeds, to promote maximum nutrient absorption and delivery in the body. This formula is designed to help support the balance of fat-soluble vitamins in the body, as they function in intricate inter-relationships with each other,¹ and to help promote skeletal, cardiovascular, and immune health.[†]

Vitamin A

ADK Evail™ provides 1,515 mcg retinol activity equivalents (RAEs) of vitamin A as retinol palmitate, which serves as a precursor to retinoic acid (RA), the most bioactive form of vitamin A in the body. Vitamin A is best known as a key nutrient in visual acuity and retinal health, especially night vision, and for its essential role in supporting healthy immune function.^{13,14} RA has been shown to play a critical role in generating mucosal dendritic cells from bone marrow, and it is believed to be involved in generating immunoglobulin A (IgA) antibody-secreting cells that are housed in the enterocyte mucosa.²⁰⁻²² Within the gut, vitamin A is central to immune homeostasis, coordinating both innate and adaptive immunity; RA stimulates dendritic, T-cell, and B-cell migration to the intestine, and directly regulates their proliferation and differentiation, which is crucial to the maintenance of the gut barrier.²³ Furthermore, RA receptors activate, repress, and modulate gene expression involved in all aspects of development that influence various other physiological pathways, including fetal development.¹³ Vitamin A is also crucial for healthy thyroid function, red blood cell production, male and female reproductive health, and cellular maturation.^{13,24,25}

Vitamin E

This formulation of ADK Evail™ is notable for supplying vitamin E isomers as DeltaGold® tocotrienols (T3). These naturally derived compounds are extracted using a natural evaporative method. Growing evidence suggests delta- and gamma-T3 are superior to alpha-tocopherols for supporting antioxidant activity, bone health, cardiovascular health, and a balanced inflammatory response.^{6,26,27} Vitamin E is known for maintaining the integrity of cellular membranes and structural lipids. Human studies have shown that T3 supplementation may have beneficial effects on cardiovascular health (including the support of healthy blood lipid metabolism), cancer, immune modulation, neuroprotective and cognitive function, skin protection, and hepatoprotectivity in individuals with nonalcoholic fatty liver disease.^{27†}



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Vitamin D and Vitamin K

Vitamin D3 is required for the proper development of bones and teeth, as it helps regulate the body's calcium levels.

Inclusion of vitamin K in formulas with vitamin D is vital for directing the transport of calcium into hard tissues; increasing the amount of vitamin D in the presence of inadequate levels of vitamin K can increase the risk of calcium deposition in arteries and soft tissues, which can cause negative effects on artery elasticity and cardiovascular function.

Not only is vitamin D essential for bone health, but it is necessary for healthy immune function, as it modulates innate and adaptive immune system response via vitamin D receptor (VDR) gene activation. VDR is a critical transcription factor in differentiating lymphocytes within the bone marrow into monocytes and granulocytes, and it also plays a vital role in regulating endothelial tight junction protein expression and microflora composition within the gut.^{28,29} Vitamin D plays a role in regulating Th1 and Th2 lymphocyte balance and downregulating inflammatory cytokine expression. Further research shows that supplementation in children may reduce influenza and acute respiratory tract infections.³⁰

Another key function of GG is to support the conversion of vitamin K1 into vitamin K2 (MK-4) in the body.³¹ GG supplementation may be critical for individuals taking statins and bisphosphonates, which may reduce GG synthesis and tissue deposition of MK-4.^{32,33} MK-4 is extensively distributed in the human body representing 90% of the total vitamin K stored.^{3,34}

For a list of references cited in this document, please visit:

<https://www.designsforhealth.com/techsheet-references/adk-email-references.pdf>

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Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage.



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