

Position Statement On Vitamin D

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The American Academy of Dermatology recommends that healthy adults should obtain an adequate amount of Vitamin D from a diet that includes foods naturally rich in vitamin D and/or foods/beverages fortified with vitamin D. Vitamin D should not be obtained from unprotected exposure to ultraviolet (UV) radiation.

- Unprotected UV exposure to the sun or indoor tanning devices is a known risk factor for the development of skin cancer.¹
 - Studies have shown that UV radiation from both the sun and tanning devices can cause oncogenic mutations in skin cells.²⁻⁴ Use of sunbeds has also been associated with increased risk for melanoma and non-melanoma skin cancers.⁵⁻⁷
- There is no scientifically validated, safe threshold level of UV exposure from the sun or indoor tanning devices that allows for maximal vitamin D synthesis without increasing skin cancer risk.
- To protect against skin cancer, a comprehensive photoprotective regimen, including the regular use and proper use of a broad-spectrum sunscreen, is recommended.^{8,9}
- Many epidemiological studies have shown an association between serum vitamin D deficiency and poor bone health. Emerging scientific evidence also suggests vitamin D status may influence certain types of cancers, neurologic disease, infectious disease, autoimmune disease, and cardiovascular disease.¹⁰⁻¹⁹
 - It should be emphasized that a review of this topic by the National Academy of Medicine, formerly the Institute of Medicine (IOM), concluded that the evidence for associating vitamin D status with outcomes not related to bone health was inconsistent, inconclusive as to causality, and insufficient to inform nutritional requirements.²⁰
 - Recent work by the United States Preventive Services Task Force (USPSTF) found no effect of vitamin D supplementation on the incidence and mortality of cardiovascular disease, and insufficient evidence as to the effect of vitamin D on cancer incidence and mortality in community dwelling, non-pregnant adults with no known nutritional deficiencies.²¹
 - Potential harms of high doses of vitamin D have been noted by both the USPSTF and the National Institutes of Health.^{21,22} Patients should talk with their doctors before starting any supplementation regimen.
- Research has also shown that individuals with darker skin tones may be at increased risk for lower levels of vitamin D.^{23,24}
- Blood tests to measure serum vitamin D level, expressed as the 25-hydroxyvitamin D [25(OH)D], are available.²⁵

- The IOM has concluded that a level of 20 ng/ml (=50 nmol/liter) should be considered adequate; the long-term safety of 25(OH)D levels above 50 ng/ml (=125 nmol/liter) have been associated with adverse effects.²²
- Based on currently available scientific evidence that supports the key role of calcium and vitamin D in skeletal health, the IOM Recommended Dietary Allowance (RDA) for calcium and vitamin D intake is shown in Table 1.
 - It should be noted that the RDA was derived based on minimal or no sun exposure due to inconsistent contributions of sunlight to Vitamin D in the population and the risk of cancer associated with sun exposure.

Table 1. Recommended Dietary Allowance (RDAs) for Vitamin D²²

Age	Male	Female	Pregnancy	Lactation
0-12 Months*	10 mcg (400 IU)	10 mcg (400 IU)		
1-13 Years	15 mcg (600 IU)	15 mcg (600 IU)		
14-18 Years	15 mcg (600 IU)	15 mcg (600 IU)	15 mcg (600 IU)	15 mcg (600 IU)
19-50 Years	15 mcg (600 IU)	15 mcg (600 IU)	15 mcg (600 IU)	15 mcg (600 IU)
51-70 Years	15 mcg (600 IU)	15 mcg (600 IU)		
>70 Years	20 mcg (800 IU)	20 mcg (800 IU)		

*Adequate Intake

Table 2. Tolerable Upper Intake Levels (ULs) for Vitamin D²²

Age	Male	Female	Pregnancy	Lactation
0-6 months	25 mcg (1,000 IU)	25 mcg (1,000 IU)		
7-12 months	38 mcg (1,500 IU)	38 mcg (1,500 IU)		
1-3 years	63 mcg (2,500 IU)	63 mcg (2,500 IU)		
4-8 years	75 mcg (3,000 IU)	75 mcg (3,000 IU)		
9-18 years	100 mcg (4,000 IU)	100 mcg (4,000 IU)	100 mcg (4,000 IU)	100 mcg (4,000 IU)
19+ years	100 mcg (4,000 IU)	100 mcg (4,000 IU)	100 mcg (4,000 IU)	100 mcg (4,000 IU)

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This Position Statement is provided for educational and informational purposes only. It is intended to offer physicians guiding principles and policies regarding the practice of dermatology. This Position Statement is not intended to establish a legal or medical standard of care. Physicians should use their personal and professional judgment in interpreting these guidelines and applying them to the particular circumstances of their individual practice arrangements.