

REVIEW ARTICLE

# Risk assessment for vitamin D<sup>1,2</sup>

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The objective of this review was to apply the risk assessment methodology used by the Food and Nutrition Board (FNB) to derive a revised safe Tolerable Upper Intake Level (UL) for vitamin D. New data continue to emerge regarding the health benefits of vitamin D beyond its role in bone. The intakes associated with those benefits suggest a need for levels of supplementation, food fortification, or both that are higher than current levels. A prevailing concern exists, however, regarding the potential for toxicity related to excessive vitamin D intakes. The UL established by the FNB for vitamin D (50 µg, or 2000 IU) is not based on current evidence and is viewed by many as being too restrictive, thus curtailing research, commercial development, and optimization of nutritional policy. Human clinical trial data published subsequent to the establishment of the FNB vitamin D UL published in 1997 support a significantly higher UL. We present a risk assessment based on relevant, well-designed human clinical trials of vitamin D. Collectively, the absence of toxicity in trials conducted in healthy adults that used vitamin D dose ≥250 µg/d (10 000 IU vitamin D<sub>3</sub>) supports the confident selection of this value as the UL.

Key Words: Vitamin D • risk assessment • Tolerable Upper Intake Level • UL

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