



Vitamin D

Mild Vitamin D deficiency is indicated by levels of 25-50 nmol/L ⁽¹⁾

Severe Vitamin D deficiency is indicated by levels < 25 nmol/L ⁽¹⁾

There is controversy over what level of Vitamin D indicates adequate levels in different groups and for different outcomes. WDP comments are mindful of this, and note that levels between 50-75 nmol/L may require further consideration or assessment in some patients. Literature also suggests that Vitamin D may be reduced by 20 nmol/L in winter compared to summer ⁽²⁾ and for this reason, levels that are just sufficient in summer may not remain adequate in winter.

“It is a fallacy that Australians receive adequate Vitamin D from casual exposure to sunlight.” ⁽¹⁾

“A significant number of Australians are deficient in Vitamin D” ⁽¹⁾

WDP data also supports this statement. We recently studied Vitamin D in pregnant women in summer and winter. Pregnant women are generally considered to be in the younger and healthy spectrum of the community and are not considered to be at high risk for Vitamin D deficiency. In winter 55% of women were Vitamin D deficient (levels < 50 nmol/L) and 95% had levels under 75 nmol/L. In summer the proportions were less but 15% of women had Vitamin D levels < 50 and 70% had levels under 75 nmol/L. This data was presented at the Endocrine Society Conference in 2008. Those at **high risk** for Vitamin D deficiency include the elderly, those with dark skin, those who are in-doors and those with malabsorption. This group has an even higher incidence of Vitamin D deficiency.

Therapy in Vitamin D deficiency is also discussed in the MJA Position Statement. In Vitamin D **deficiency**, supplementation with 3,000-5,000 IU ergocalciferol per day (3-5 capsules per day) for 6-12 weeks is initially recommended. Thereafter a lower maintenance dose may be considered.

References:

1. The Working Group of the Australian and New Zealand Bone and Mineral Society, Endocrine Society of Australia and Osteoporosis Australia. *Vitamin D and adult bone health in Australia and New Zealand: a position statement. Med J Aus 2005; 182: 281-285*

2. Bacon CJ, Gamble GD, Horne AM, Scott MA, Reid IR. *High-dose oral Vitamin D3 supplementation in the elderly. Osteoporos Int 2009; 20: 1407 – 1415.*

