



Breaking News on Supplements &amp; Nutrition - North America

## Doctors advise more vitamin D for infants

By staff reporter, 20-Oct-2008

**The American Academy of Pediatrics has doubled its advice on vitamin D intake by children and infants to 400 IU per day, on the basis of clinical evidence for the prevention of rickets and deficiency – and possible links with diabetes and cancer prevention.**

Vitamin D is naturally occurring in some foods and is also synthesized by the human skin on exposure to sunlight. Deficiency of vitamin D can cause rickets – a disease that causes the bones to soften and can lead to fractures and deformity. Although rickets can also affect adolescents, the incidence tends to peak between the ages of three and 18 months.

Despite this knowledge, there have been concerns that current intake levels are insufficient, particularly in people who live in less-sunny climates, and those with darker skin tones.

In a clinical report published in *Pediatrics*, lead authors Carol Wagner and Frank Greer of the Academy note that decreased sunlight exposure is reported in the US; in addition, excess exposure to sunlight can increase the risk of skin cancer; and in any case, it is hard to determine just how much of the vitamin individuals are able to synthesize through their skin.

Their new advice, which updates that issued in 2003 and covers all infants (including those who are exclusively breastfed), children and adolescents, involves supplementation of the diet. This is because vitamin D occurs naturally in very few foods – mainly fish and those purposefully fortified with it, such as milk and breakfast cereals

### Clinical evidence

Wagner and Greer, medical doctors both, say that there is historical precedence of safely giving 400 IU to infants.

In addition, they wrote: *"New evidence supports a potential role for vitamin D in maintaining innate immunity at preventing diseases such as diabetes and cancer. The new data may eventually refine what constitutes vitamin D sufficiency or deficiency."*

### Broader implications

The primary target of the new advice, in its published form, is clinicians involved in providing pediatric care. However it is likely to be of considerable interest to others in the scientific community and the dietary supplements sector, who have been clamouring for an increase in advice levels for some time.

The authors of the advice note that dietary sources of vitamin D are limited, and draw attention to the importance of supplementation.

The National Institutes of Health's Office of Dietary Supplements is already flagging the new advice on its vitamin D advice page; it does also give the 1997 advice from the NIH's Food and Nutrition Board, which gives an adequate intake of 200 IU for all adults and children, with the exception of those aged 51 to 70 and 71 and older, for whom the advice is 400 IU and 600 IU respectively.

For some, however, the new advice may not go far enough. Dr Michael Holick of the Boston University School of Medicine wrote in the *New England Journal of Medicine* last year that current recommendations of 200 IU per day for children and adults up to 50 years of age for vitamin D need to be increased to 800 - 1000 IU vitamin D3.

Health Canada already recommended 400IU a day for breastfed infants; Canadian Pediatric Society advises pregnant or breastfeeding women to take 2000 IU/day.

It agrees with the view that all babies who are exclusively breastfed receive a supplement of 400 IU/day, but doubles this to 800 IU a day for those living at sunshine starved latitudes above 55 degrees.

Source: *Pediatrics* Volume 122, Number 5, November 2008

*"Prevention of rickets and vitamin D deficiency in infants, children and adolescents".*

Authors: Carol Wagner, Frank Greer, and the Section on Breastfeeding and Committee on Nutrition

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