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Supplement breast-fed babies with vitamin D study

By Shane Starling, 03-Jun-2008

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US researchers have found more than 12 per cent of 365 healthy infants and toddlers in the Boston are had vitamin D deficiency, some of which were breast-fed, and recommended supplementation to compensate.

Forty per cent of the 8-24 month-old infants had *"suboptimal"* vitamin D levels - responsible for the onset of conditions like rickets.

Their findings concurred with earlier studies that drew links between breast-feeding, which has been on the rise in the US for 30 years, and vitamin D deficiency.

The American Academy of Pediatrics recommended that breast-fed infants should receive vitamin D supplementatic in 2003.

It and the Institute of Medicine recommend 200 IU of vitamin D daily to most infants, children, and adolescents - a figure many question as being too low.

The research, published in the June edition of the *Archives of Paediatric Medicine*, concluded that *"lack of supplementation may have been related to barriers to access or lack of awareness."*

"Furthermore, the fact that some infants were vitamin D deficient despite reported supplementation raises questior about the current dosage recommendation and overall compliance."

The researchers said such issues needed to be looked at in further studies that included larger numbers of breast-fed babies.

"Nonetheless, these findings endorse recommendations for health care providers and parents to ensure that breastfed infants receive daily vitamin D supplementation for the duration of breastfeeding."

The study

As well as seeking to determine whether vitamin D deficiency is as prevalent among healthy infants and toddlers a it is among adolescents, the study tested the hypothesis that *"breastfeeding without supplementation among infants, consumption of juice rather than milk in toddlers, dark skin pigmentation,*

and winter season would emerge as significant predictors of vitamin D deficiency."

But they found sex, season, time spent outdoors, sunscreen use, sun sensitivity, or skin pigmentation did not vary the prevalence of deficiency.

Only breast-feeding without supplementation was strongly associated with vitamin D deficiency where there was more than a *"10-fold increase in risk relative to infants who were exclusively bottle-fed."*

The study participants were drawn from a Boston school in which 90.1 per cent were African American or Latino. Tl researchers hypothesised that darker skin pigments may affect vitamin D levels due to the activity of the sun, but found no significance in this theory.

However they noted that the northern clime of Boston, Massachusetts, where there is little sunshine, as well as the fact infants are regularly covered with clothing by concerned parents when exposed to the sun, may have contributed to these findings.

"However, further studies are needed to determine whether a 200 IU daily dose will provide adequate supplementation," they concluded.

Source: *Archives of Paediatric Medicine*

June 2008, Vol 162, No. 6

"Prevalence of Vitamin D Deficiency Among Healthy Infants and Toddlers"

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