

October 28<sup>th</sup>, 2009

*For the first time, new clinical research provides evidence for a relationship between maternal vitamin D levels and select markers of infant dental health.*

## MATERNAL VITAMIN D STATUS INFLUENCES EARLY CHILDHOOD DENTAL HEALTH

The relationship between vitamin D and adult bone health is well-understood. However, until recently less has been known about the relationship between maternal vitamin D status and infant bone health. A new study out of the University of Manitoba sheds new light on this subject by examining the relationship between maternal vitamin D status and two measures of infant dental health: enamel hypoplasia (EH) and early childhood caries (ECC).

206 pregnant women enrolled in the study during their second trimester. Serum vitamin D analyses revealed that more than a third of the women were vitamin D deficient (34.5%, deficiency defined as  $\leq 35$  nmol/L). Only 21 women had adequate levels of vitamin D (10.5%, adequacy defined as  $\geq 80$  nmol/L).

Over the next two years, 135 infants returned for a dental health examination. 21.6% had EH while 33.6% had ECC. Mothers of children with EH had lower vitamin D concentrations during pregnancy, though the result didn't quite reach statistical significance (43.2 vs 51.4 nmol/L,  $p=0.07$ ). However, mothers of children with ECC had significantly lower vitamin D levels than those whose children were caries-free (43.9 vs 52.8 nmol/L,  $p=0.034$ ).

This study is the first to provide evidence for a correlation between maternal vitamin D levels and infant dental health, and additional research currently underway should shed further light on this important issue.

*< Schroth R, Lavelle C, Moffatt ME. 2008. Influence of maternal vitamin D status on infant oral health. Proc Int Assoc Dent Res Meet, Abs 1646 >*