IADR
International Association
for Dental Research

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MOTHER'S VITAMIN D STATUS DURING PREGNANCY WILL AFFECT HER BABY'S DENTAL HEALTH

Toronto, ON, Canada – Low maternal vitamin D levels during pregnancy may affect primary tooth calcification, leading to enamel defects, which are a risk factor for early-childhood tooth decay. Today, during the 86th General Session of the International Association for Dental Research, investigators from the University of Manitoba (Winnipeg and Victoria) present the results of a study they conducted to determine the vitamin D status of pregnant women, the incidence of enamel defects and early-childhood tooth decay among their infants, and the relationship with pre-natal vitamin D levels.

Two hundred six pregnant women in their second trimester participated in the study. Only 21 women (10.5%) were found to have adequate vitamin D levels. Vitamin D concentrations were related to the frequency of milk consumption and pre-natal vitamin use. The investigators examined 135 infants (55.6% male) at 16.1 ± 7.4 months of age, and found that 21.6% of them had enamel defects, while 33.6% had early-childhood tooth decay. Mothers of children with enamel defects had lower, but not significantly different, mean vitamin D concentrations during pregnancy than those of children without defects. However, mothers of children with early-childhood tooth decay had significantly lower vitamin D levels than those whose children were cavity-free. Infants with enamel defects were significantly more likely to have early-childhood tooth decay.

This is the first study to show that maternal vitamin D levels may have an influence on primary teeth and the development of early-childhood tooth decay. It was funded by the Manitoba Medical Service Foundation, the Manitoba Institute of Child Health, the Dentistry Canada Fund, the University of Manitoba, and Dairy Farmers of Canada.

About the International Association for Dental Research

The International Association for Dental Research (IADR) is a non-profit organization with more than 10,800 individual members worldwide, dedicated to: (1) advancing research and increasing knowledge to improve oral health, (2) supporting the oral health research community, and (3) facilitating the communication and application of research findings for the improvement of oral health worldwide.

To learn more about the IADR, visit www.iadr.org.

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This is a summary of an abstract entitled "Influence of Maternal Vitamin D Status on Infant Oral Health", by R. Schroth *et al.,* of the University of Manitoba, Canada, to be presented at 11:45 a.m. on Friday, July 4, 2008, in Room 705 of the Metro Toronto Convention Centre, Toronto, ON, Canada, during the 86th General Session of the International Association for Dental Research.

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