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VITAMIN D DEFICIENCY MAY INCREASE RISK OF CESAREAN DELIVERY

Low concentrations of vitamin D have been associated with a number of health concerns. Recent research out of Boston University suggests that vitamin D deficiency in pregnant mothers correlates strongly with an increased risk of cesarean deliveries.

Between 2005 and 2007, five researchers from the Boston University School of Medicine measured both maternal and infant vitamin D levels from maternal medical records at a local hospital. In total, 253 women enrolled in the study. 17% (43 women) had a primary cesarean delivery.

A strong inverse association existed between serum vitamin D levels in the mother and prevalence of cesarean sections. 28% of vitamin D deficient mothers had a cesarean delivery, compared with only 14% of mothers with adequate vitamin D levels. (P = 0.012, deficiency defined as serum 25(OH)D < 15 ng/mL)

Further analyses showed that after controlling for race, age, education level, insurance status, and alcohol use, mothers deficient in vitamin D were almost four times as likely to have a cesarean delivery. (Odds ratio 3.84, 95% CI 1.71-8.62)

Dr. Michael Holick, one of the lead researchers, provided one explanation for the data. "Vitamin D is critically important for muscle function. Thus, it is not at all surprising that pregnant women, who are at very high risk for vitamin D deficiency, have an associated increased risk for cesarean birth."

< Merewood A, Mehta SD, Chen TC, Bauchner H, Holick MF. 2009. Association between Vitamin D Deficiency and Primary Cesarean Section. J Clin Endocrin & Met 94(3):940-5. >