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New research shows that pregnant mothers with inadequate vitamin D levels may negatively influence the long-term bone health of their children.

MATERNAL VITAMIN D STATUS DURING PREGNANCY INFLUENCES CHILDHOOD BONE MASS

Vitamin D status is often poor in women of childbearing age, and evidence suggests that the risk of bone fracture (due to osteoporosis) in adulthood could be determined partly by environmental factors during pregnancy and early childhood. A recent study investigated the effect of maternal vitamin D status during pregnancy on childhood skeletal growth.

In a longitudinal study, researchers studied 198 children born in 1991 and 1992. Body build, nutrition, and vitamin D status of the mothers were examined during pregnancy, and the children were examined at age 9 to correlate the original maternal characteristics to their current body size and bone mass.

Forty-nine (31%) mothers had insufficient vitamin D levels, while another 28 (18%) had deficient levels during late pregnancy. Inadequate vitamin D in mothers during late pregnancy was associated with reduced whole-body and lumbar spine bone mineral content in children at age 9.

Maternal vitamin D insufficiency is common during pregnancy and now looks to be associated with reduced bone-mineral accumulation in offspring during childhood. Vitamin D supplementation of pregnant women, especially during winter months, could lead to improved bone health and a long-term reduction in the risk of osteoporosis in their children.

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