

BODY

# Low Vitamin D in Childhood Linked to Later Heart Risks

By Nicholas Bakalar

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Vitamin D deficiency in childhood may be linked to hardening of the arteries in middle age, a long-term Finnish study has found.

The study, in *The Journal of Clinical Endocrinology & Metabolism*, began in 1980, when 2,148 children aged 3 to 18 were enrolled in the study. All underwent periodic physical exams, including measures of serum vitamin D levels, blood pressure, lipid levels, diet, smoking and physical activity and were examined up to age 45. Doctors used ultrasound to examine arteries, including the carotid artery in the neck; thickening of the arteries is considered a marker of higher cardiovascular risk.

A vitamin D level of between 30 to 50 is generally considered adequate. Children in the lowest one-quarter for vitamin D levels, about 15 nanograms per milliliter, were nearly twice as likely to have thickening of the carotid artery as those in the other three quarters. The association persisted after adjusting for age, sex and other cardiovascular risk factors.

“There’s a lot of data showing that vitamin D insufficiency is bad for health,” said the lead author, Dr. Markus Juonala, a professor of internal medicine at the University of Turku in Finland. “We found evidence that it is connected to artery health as well.”

The authors acknowledge that they found associations only with the condition of arteries, not with heart problems or stroke. “The findings say

nothing about cardiovascular disease,” Dr. Juonala said. “We don’t know about that yet.”