

Patterns of childhood growth may trigger type 2 diabetes

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(HealthDay)—Certain trajectories of body mass index (BMI) during childhood may increase risk of developing type 2 diabetes (T2D) later in life, according to research published online Feb. 14 in the *Journal of Internal Medicine*.

Johan G. Eriksson, M.D., of the University of Helsinki, and colleagues analyzed data for a cohort of 13,345 individuals. Detailed records of growth had been kept during childhood, and 11.7 percent of the participants had been diagnosed with T2D. The cohort was divided into two groups according to the median BMI at 11 years (16.8 kg/m² in boys and 17.0 kg/m² in girls). Body composition and glucose tolerance were assessed in a subsample of the cohort in adulthood.

The researchers found two pathways of child growth that were associated with the development of T2D. In one pathway, persistent low BMI during infancy was followed by a rapid increase in BMI during childhood. Among participants with a BMI higher than the median value at age 11 years, the odds ratio for T2D associated with a one z-score increase in BMI between ages 2 and 11 years was 1.31 (95 percent; P

"Low fat deposition leading to thinness at birth and during infancy results in fat acquisition during [childhood](#)," the authors write. "Reduced linear growth leading to short length at birth is associated with lower [body fat percentage](#) in adulthood but increased risk of developing diabetes."

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