Neonatal adiposity linked to higher childhood BMI levels

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(HealthDay)—Higher neonatal adiposity is significantly associated with

higher overall body mass index (BMI) levels at ages 2 to 6 years, according to a study published online Aug. 13 in *Pediatrics*.

Brianna F. Moore, Ph.D., from the University of Texas Health Science Center at Houston, and colleagues studied 979 children from the Healthy Start cohort to explore the longitudinal association of neonatal adiposity (fat mass percentage) with BMI trajectories in childhood. The associations of neonatal fat mass percentage with BMI trajectories and with childhood obesity and overweight from age 2 to 6 years were examined.

The researchers found that the mean neonatal adiposity level was 9.1 ± 4.0 percent. There was variation in child BMI levels by neonatal adiposity. The BMI level was 0.12 higher overall between ages 2 and 6 years with each standard deviation increase in neonatal adiposity; this association was not modified by offspring sex, race and/or ethnicity, or breastfeeding duration. An increasing proportion of childhood overweight and obesity by age 5 years was seen in association with increasing neonatal adiposity.

"Obesity is primed during prenatal development, beginning as early as midgestation, which suggests that pregnancy may be an ideal time to intervene," the authors write. "Because prenatal factors may have a specific effect on offspring fat accretion, our results suggest that neonatal adiposity may be a useful surrogate end point for prenatal trials designed to reduce future child overweight and obesity."

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