

# Sowing the seeds of the obesity epidemic in babyhood

November 7 2011

---

The growth charts pediatricians use at well-baby visits can predict a baby's risk for obesity later in life, finds a population-based study from Children's Hospital Boston, Harvard Medical School and Harvard Pilgrim Healthcare.

The study, funded by the [Centers for Disease Control and Prevention](#), tracked more than 44,000 [babies](#) and found that those who rose two or more major percentiles in weight-for-length on their growth charts at any time before age 2 doubled their odds of [obesity](#) at age 5 and were nearly twice as likely to be obese at age 10. (Weight-for-length percentiles show how a baby's weight compares to that of other babies of the same length.)

The study further found the highest prevalence of later obesity among babies who rose two or more weight-for-length percentiles before 6 months of age, or who were already in a high percentile at their first visit. The report appears in the November [Archives of Pediatrics and Adolescent Medicine](#).

The findings provide specific guidance to help pediatricians recognize when a baby is at true risk of becoming obese later in childhood, which may help stem the [obesity epidemic](#) in its earliest stages, says study leader Elsie Taveras, MD, MPH, co-director of the One Step Ahead clinic, a pediatric overweight [prevention program](#) at Children's Hospital Boston. Specifically, the study suggests assessing how many weight-for-length percentiles a child crosses during the first two years, and

especially in the first 6 months.

"We shouldn't neglect these early gains and think that it's just baby fat, and that these children are going to grow out of it," says Taveras, also co-director of the [Obesity Prevention](#) Program at Harvard Medical School and Harvard Pilgrim Health Care Institute. "Crossing two or more percentiles in weight-for-length should trigger a discussion between parents and their pediatric providers of what's contributing to the rapid gains. [Infants](#) are different than adults, and we wouldn't put infants on a diet, but we can detect some possible early risk factors that could be targets for counseling. "

Taveras and colleagues analyzed weight and height data from 44,622 babies making well-child visits at Harvard Vanguard Medical Associates/Atrius Health in eastern Massachusetts from 1980 through 2008, tracking the children until age 5 or 10.

In general, they observed:

- Of all babies tracked, 11.6 percent were obese at the age of 5, and 16.1 percent at age 10. (Obesity was defined as a body mass index at or above the 95th percentile for age and sex.)
- Babies who were overweight anytime during the first 2 years of life were more likely to be obese at age 5 or age 10.
- Increases in weight-for-length were common: 43 percent of the infants rose 2 or more weight-for-length percentiles during their first 6 months, and 64 percent had such rises during their first 24 months.

More specifically:

- The higher the weight-for-length percentile at the first visit and at any time in the first 24 months of life, the greater the prevalence of obesity at 5 or 10 years.
- Babies who rose 2 or more weight-for-length percentiles any time in their first 24 months were twice as likely as other babies to be obese at age 5 and 75 percent more likely to be obese at age 10.
- The more percentiles babies rose (0, 1, and 2 or more) in their first 24 months, the greater the prevalence of later obesity.
- Infants rising 2 or more weight-for-length percentiles in the first 6 months of life nearly always had higher rates of obesity than infants who had such rises later in babyhood.

"There's something about excess gains in those first 6 months that, in many cases, persists, that's not going away," Taveras says.

The combination of where a baby is on the growth charts and how much he or she gains in the next 6 months tells the most complete story (see figure and table 4). For example, obesity prevalence at age 5 years was lowest (4.1 percent) among infants who were below the 25th weight-for-length percentile at 1 month of age and remained there at 6 months, and highest (33 percent) among infants who started in the 75th to 90th percentile and rose 2 or more percentiles in their first 6 months of life. The pattern was similar for obesity at [age 10](#).

Taveras hopes the findings will put an end to the idea that large gains in adiposity are normal for babies. That notion is based on an earlier CDC study that observed lots of fluctuations in weight-for-length among babies under 2 years, but did not track outcomes at later ages.

Although other studies have concluded that infants at the high end for weight or body mass index, and those who grow most rapidly, are more likely to be obese later in life, none have translated this information into

the growth charts that pediatric providers and parents use at well-child visits.

While not advocating putting babies on a diet, Taveras suggests the following measures to prevent obesity, many of which also appear in a June 2011 report from the Institute of Medicine, to which Taveras contributed:

- Breastfeeding infants as long as possible
- Paying more attention to infants hunger and satiety cues
- Avoiding sugar-sweetened beverages
- Not introducing solid foods before 4 months
- Ensuring infants get enough sleep (12 hours or more in a 24-hour period)
- Giving babies more opportunity to move, rather than confining them to strollers and baby seats
- Avoiding exposure to food marketing and limiting screen time

Provided by Children's Hospital Boston

Citation: Sowing the seeds of the obesity epidemic in babyhood (2011, November 7) retrieved 21 June 2024 from

<https://medicalxpress.com/news/2011-11-seeds-obesity-epidemic-babyhood.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.