



## Study Summary

### ***ECHO Study Suggests Early Breastfeeding May Be Linked to Lower Risk of Childhood Obesity***

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#### Who sponsored this study?

The Environmental influences on Child Health Outcomes (ECHO) Program, Office of the Director, National Institutes of Health supported this research.

#### Why was this study needed?

Obesity in kids is becoming more common around the world. When children have obesity, they often carry it into adulthood, affecting their long-term health outcomes. While previous studies have shown that breastfeeding may protect children against obesity and other chronic conditions, this relationship has not been studied much in women with obesity. ECHO Cohort researchers wanted to explore the possible link between breastfeeding practices in women with obesity and overweight prior to pregnancy and a child's BMIz score. Researchers use BMIz scores to compare children's height and weight to those of their peers while the more familiar BMI assesses body weight in relation to height.

#### What were the study results?

This study found that consistently breastfeeding infants in any amount during their first three months was associated with lower BMIz scores during early childhood (between the ages of 2 and 6) and a lower risk of childhood obesity, regardless of the mother's pre-pregnancy BMI. This protective association appeared stronger for children with mothers who had obesity before pregnancy (BMI of 30 or higher) compared to those categorized as overweight (BMI between 25 and 29.9) during the same time.

Exclusive breastfeeding at three months was associated with a lower child BMIz score only among women with a pre-pregnancy BMI in the normal range. Each additional month of any or exclusive breastfeeding correlated with a significantly lower child BMIz, particularly for mothers categorized as overweight (in the case of any breastfeeding) or as having obesity (for any or exclusive breastfeeding) prior to pregnancy.

Footnote: Results reported here are for a single study. Other or future studies may provide new information or different results. You should not make changes to your health without first consulting your healthcare professional.

#### What was the study's impact?

The results of this study highlight that each additional month of breastfeeding, whether a consistent amount or exclusive, may contribute to a lower weight later in childhood, especially for mothers who

had obesity before pregnancy. Health professionals can use this study's findings as an opportunity to encourage and promote breastfeeding among all women, especially those who have obesity.

### Who was involved?

The study looked at BMI measurements from 8,134 pairs of mothers and kids at 21 study sites in 16 states and Puerto Rico.

### What happened during the study?

The researchers calculated BMI and BMIz scores from measurements taken at study visits, medical records, or self-reported data for the mother and child. Additionally, the study examined two breastfeeding situations: whether the mother ever breastfed or whether the mother was exclusively breastfeeding the infant at 3 months old. This continuous breastfeeding measure included the duration of any breastfeeding allowing for formula or other food and the duration of exclusive breastfeeding with no formula feeding or other food.

### What happens next?

Future research and public health prevention efforts could continue to focus on addressing disparities in breastfeeding duration and obesity among mothers that can affect child health outcomes.

### Where can I learn more?

Access the full journal article titled "Maternal Pre-pregnancy BMI, Breastfeeding, and Child BMI" in [Pediatrics](#).

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