



# ECHO

Environmental influences  
on Child Health Outcomes

A program supported by the NIH



## Changes in body mass index among school-aged children before and after the Healthy, Hunger-Free Kids Act

*Aruna Chandran, Emily Knapp, et al.*



### What happened?

ECHO researchers asked if the passing of the Healthy, Hunger-Free Kids Act (HHFKA) led to a decrease in BMI in children over time.

ECHO researchers compared yearly BMI trends with the BMI of over 14,000 ECHO participants between the ages of 5 and 18 living in the United States and Puerto Rico.



### Why was this study needed?

Obesity is a serious health concern that affects nearly 1 in 5 children in America, and only a few small studies have explored if the Healthy, Hunger-Free Kids Act reduced body mass index (BMI) in children over time.



### What is the Healthy, Hunger-Free Kids Act?

The Healthy, Hunger-Free Kids Act (HHFKA) is a federal law that allowed schools across the nation to offer free lunch and breakfast programs to help improve child nutrition.



### What were the results?

The decade before the HHFKA was passed, childhood BMI rates were increasing. There was an overall decrease in BMI in the first few years after the HHFKA passed compared to the decade prior to the program.

For a full list of all ECHO findings, visit [www.echochildren.org/echo-program-publications](http://www.echochildren.org/echo-program-publications).

**Note:** Results reported here are for a single study. Other or future studies may provide new information or different results.

You should always consult with a qualified healthcare provider for diagnosis and to answer your health questions.



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It is important that  
pregnant people get  
the right amounts of the  
nutrients they need for  
a healthy pregnancy.



This study looked at over 20,000 prenatal vitamins available in the U.S. that contain optimal doses of six key nutrients:

**Vitamin A supports eye sight and skin health.**  
Most supplements have enough vitamin A. This one should be easy to get!

**Vitamin D supports bone and teeth health.**  
Most supplements have enough vitamin D. This one should be easy to get!

**Iron supports healthy blood cells.**  
Some supplements have more iron than you need. Look for ones with iron in this range to support your baby.

## Supplement Facts

Serving size: 2 capsules

Servings Per Container: 60

Amount Per Serving	% Daily Value*		
Vitamin A	198 or more	mcg	15% or more
Folic Acid	169 to 720	mcg	47% to 200%
Vitamin D	7 to 91	mcg	47% to 607%
Calcium	383 to 943	mg	29% to 73%
Iron	13 to 22	mg	48% to 81%
Omega-3 fatty acids	59 or more	mg	†

\*% Daily Value based on 2000 calorie diet for pregnant and lactating females.

†Daily Value not established

Source for what each nutrient does: <https://www.acog.org/womens-health/faqs/nutrition-during-pregnancy>

**Folic acid prevents birth defects.**  
Many supplements have more folic acid than you need. Look for ones with folic acid in this range to support your baby.

**Calcium supports bone and teeth health.**  
Most supplements are low in calcium. You may need to take another calcium supplement to get enough.

**Omega-3 fatty acids support brain health.**  
Most supplements do not have any omega-3 fatty acids. Look for ones with omega-3s to support your baby.

■ Easy to get optimal dose   ■ Harder to get optimal dose   ■ Not easy to get in most

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