

# Antibiotic exposure in infancy not associated with weight gain in childhood

March 22 2016

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Exposure to antibiotics within the first 6 months of life compared with no exposure among nearly 40,000 children was not associated with a significant difference in weight gain through age 7, according to a study appearing in the March 22/29 issue of *JAMA*.

Antibiotics are the most commonly prescribed medications for [children](#), with the long-term health effects relatively unknown. Early-life antibiotic exposure has been associated with increased adiposity (body fat) in animal models. Studies of the association between infant [antibiotics](#) and childhood [weight gain](#) have reported inconsistent results. Jeffrey S. Gerber, M.D., Ph.D., of The Children's Hospital of Philadelphia, and colleagues conducted a study that included 38,522 children and 92 twins (46 matched pairs) with differences in antibiotic exposure and assessed the association between early-life exposure and childhood weight gain. The children were of diverse racial and socioeconomic backgrounds from Pennsylvania, New Jersey, and Delaware.

Of the children in the study, 5,287 (14 percent) were exposed to antibiotics during the first 6 months of life (at an average age of 4.3 months). Antibiotic exposure was not significantly associated with rate of weight change (0.7 percent; equivalent to approximately 1.8 ounce). Among 92 twins, the 46 twins who were exposed to antibiotics during the first 6 months of life received them at an average age of 4.5 months, and exposure was not significantly associated with a weight difference (-3.2 ounces).

"These findings do not support a clinically meaningful association of early-life antibiotic use with childhood weight gain," the authors write. "There are many reasons to limit antibiotic exposure in young, healthy children, but weight gain is likely not one of them."

**More information:** *JAMA*, [DOI: 10.1001/jama.2016.2395](https://doi.org/10.1001/jama.2016.2395)

Provided by The JAMA Network Journals

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