

Diabetes medication may help decrease BMI in obese adolescents

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a medication used to treat type 2 diabetes—appears to cause a small but significant decrease in body mass index (BMI) in non-diabetic obese adolescents when combined with a lifestyle intervention program, according to a report in the February issue of *Archives of Pediatrics & Adolescent Medicine*, one of the JAMA/Archives journals.

Over the past 50 years, childhood obesity rates in the United States have tripled and 31.9 percent of children are now overweight or obese, according to background information in the article. Childhood obesity is associated with type 2 diabetes mellitus, hypertension and a high risk for adult obesity and cardiovascular disease. Metformin hydrochloride is commonly used to treat obesity in non-diabetic [adolescents](#), but there is not enough data available to confirm its efficacy as an obesity treatment.

Darrell M. Wilson, M.D., of Stanford University and the Lucile S. Packard Children's Hospital, Stanford, Calif., and colleagues in the Glaser Pediatric Research Network Obesity Study Group randomly assigned 77 obese adolescents (ages 13 to 18) to a lifestyle intervention program (consisting of physical activity and diet) and either one daily dose of metformin XR (2,000 milligrams) (39 patients) or placebo (38 patients) for 48 weeks. Participants were monitored for an additional 48 weeks.

"Metformin XR had a small but statistically significant impact on BMI over the initial 52 weeks of the study," the authors write. The average

BMI increased by 0.2 in the placebo group and decreased by 0.9 in the metformin XR group. "The BMI difference between the groups persisted for 12 to 24 weeks after cessation of study drug. Thereafter, the mean [average] BMI in the metformin group increased toward that in the control group."

"Metformin was safe and tolerated in this population. These results indicate that metformin may have an important role in the treatment of adolescent [obesity](#)," the authors conclude. "Longer-term studies will be needed to define the effects of metformin treatment on obesity-related disease risk in this population."

More information: Arch Pediatr Adolesc Med. 2010;164[2]:116-123.

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