

# Metformin treatment beneficial for obese children, teens

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Obese children and adolescents treated with twice-daily metformin have significantly improved body mass index standard deviation scores, fasting glucose, and other metabolic risk factors, according to research published online Nov. 21 in the *Journal of Clinical Endocrinology & Metabolism*.

(HealthDay)—Obese children and adolescents treated with twice-daily metformin have significantly improved body mass index standard deviation scores (BMI-SDS), fasting glucose, and other metabolic risk factors, according to research published online Nov. 21 in the *Journal of Clinical Endocrinology & Metabolism*.

Deborah Kendall, M.D., of the Royal Manchester Children's Hospital in the United Kingdom, and colleagues conducted a prospective, randomized, double-blind, placebo-controlled trial involving 151 obese children and adolescents from six pediatric endocrine centers to evaluate the effect of metformin, given at a dose of 1 g each morning and 500 mg each evening. Seventy-four participants were allocated to metformin and

77 were assigned to placebo for six months.

At three months, the researchers found that metformin-treated children and adolescents had significantly improved [fasting glucose](#) levels, alanine aminotransferase (ALT) levels, and adiponectin to leptin ratios (ALR) compared with placebo-treated participants. At six months, there were significant changes in BMI-SDS in metformin-treated participants compared with those who received placebo.

"The MOCA [Metformin in [Obese Children](#) and Adolescents] trial provides evidence that a short treatment course of metformin is clinically useful, safe, and well tolerated to halt further gain in adiposity and improve fasting glucose, ALT, and ALR," the authors write. "Metformin may also provide a stimulus for further lifestyle changes and is a useful adjunct to support lifestyle modification and potentially reduce long-term risk of cardiovascular disease and type 2 diabetes."

**More information:** [Abstract](#)  
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