

Teens with obesity and PCOS have more 'unhealthy' bacteria

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Teens with obesity and polycystic ovary syndrome (PCOS) have more "unhealthy" gut bacteria suggesting the microbiome may play a role in the disorder, according to new research published in the *Endocrine*

Society's *Journal of Clinical Endocrinology & Metabolism*.

PCOS is complicated endocrine disorder affecting 6 percent to 18 percent of women of reproductive age and work in [adult women](#) indicates that changes in bacteria be involved. The. The hormone disorder is characterized by elevated testosterone levels in the blood that cause acne, excess hair growth and irregular periods. Teens with PCOS often also struggle with obesity and have a higher risk for type 2 diabetes, infertility, and depression.

"We found that in adolescents with PCOS and obesity, the bacterial profile (microbiome) from stool has more "unhealthy" bacteria compared to teens without PCOS," said the study's corresponding author, Melanie Cree Green, M.D., Ph.D., of Children's Hospital Colorado in Aurora, Colo. "The unhealthy bacteria related to higher testosterone concentrations and markers of metabolic complications."

The researchers studied 58 teens with obesity and found that girls with PCOS have an altered gut microbiome compared to those without the condition. These girls had more "unhealthy" bacteria in their stool which was related to higher [testosterone levels](#) and other markers of metabolic syndrome, such as higher blood pressure, liver inflammation and plasma triglycerides

"The [gut microbiome](#) may play a role in PCOS and its related metabolic complications, and these changes can be found in teenagers who are early in the course of the condition," Green said.

More information: Stacey Simon et al. Poor Sleep is Related to Metabolic Syndrome Severity in Adolescents with PCOS and Obesity, *The Journal of Clinical Endocrinology & Metabolism* (2020). [DOI: 10.1210/clinem/dgz285](#)

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