

Study suggests link between *H. pylori* bacteria and adult Type 2 diabetes

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A recent study shows that the presence of *H. pylori* bacteria is associated with elevated levels of glycosylated hemoglobin (HbA1c), an important biomarker for blood glucose levels and diabetes. This association was stronger in obese individuals with a higher Body Mass Index (BMI). The results, which suggest the bacteria may play a role in the development of diabetes in adults, are published in *The Journal of Infectious Diseases* and are now available [online](#).

H. pylori infection of the stomach may be acquired in early childhood, become persistent, and can lead to gastric and duodenal ulcers; these bacteria have also been associated with an increased risk of [gastric cancer](#). Treatment and eradication of these bacteria with antibiotics have cured many patients with ulcers, revolutionizing treatment of this disorder.

Type II diabetes causes an estimated 3.8 million adult deaths globally. There have been conflicting reports about the association between *H. pylori* infection and type II diabetes. To better understand the relationship between *H. pylori* and the disease, Yu Chen, PhD, and Martin Blaser, MD, at NYU School of Medicine, part of NYU Langone Medical Center, cross-analyzed data from participants in two National Health and Nutrition Surveys (NHANES III and NHANES 1999-2000) to assess the association between *H. pylori* and levels of HbA1c. According to the study authors, "*H. pylori* was consistently positively related to HbA1c level in adults, a valid and reliable [biomarker](#) for long-term blood glucose levels."

In addition, this association was stronger in individuals with a high BMI compared to those with a lower value. The researchers hypothesized that *H. pylori* may affect the levels of two stomach hormones that help regulate [blood glucose](#), and they suggest that eradicating *H. pylori* using antibiotics in some older [obese individuals](#) could be beneficial. More research will be needed to evaluate the health effects of *H. pylori* and its eradication among different age groups and in relation to obesity status, the authors noted.

An accompanying editorial points out that while previous studies have addressed the association between type II diabetes and *H. pylori* in small samples, this study analyzed two independent large national samples of the general population. The editorial authors agreed with the study investigators, suggesting that adults infected with *H. pylori* with higher BMI levels, even if asymptomatic, may need anti-*H. pylori* therapy to control or prevent type II diabetes. If the study findings are confirmed, lead editorial author Dani Cohen, PhD, of Tel Aviv University in Israel, noted, they "could have important clinical and public health implications."

Fast Facts: [Type II diabetes](#) causes an estimated 3.8 million adult deaths globally. *H. pylori* was consistently positively related to levels of glycosylated hemoglobin (HbA1c), an important biomarker for [blood glucose levels](#) and diabetes. The association between *H. pylori* and HbA1c was stronger in individuals with a higher [Body Mass Index](#) (BMI).

Provided by Infectious Diseases Society of America

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