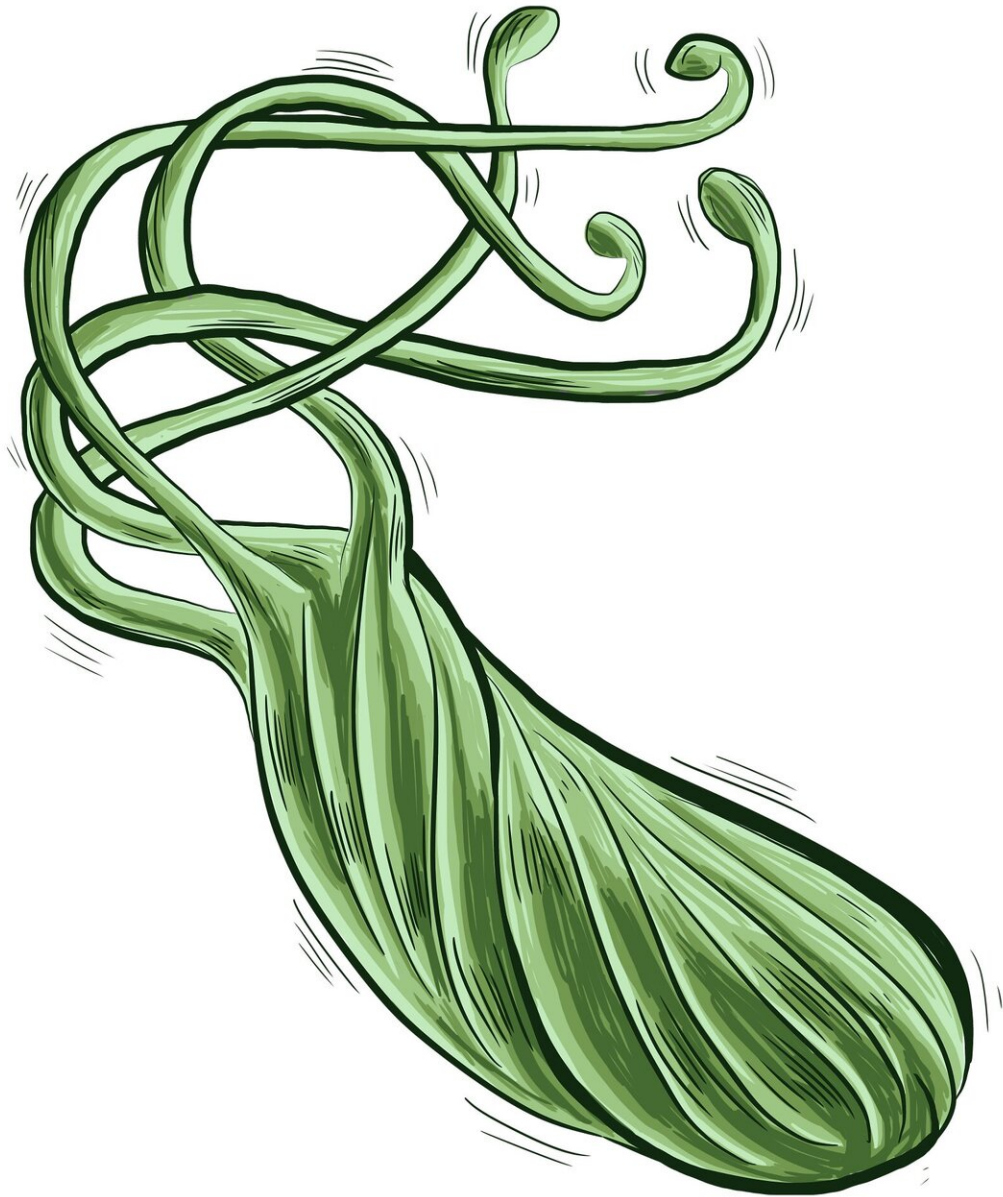


Eliminating common bacterial infection significantly decreases gastric cancer risk

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While it is well known within the medical community that there is a link between the bacteria *Helicobacter pylori* (*H. pylori*) and rates of gastric cancer—commonly referred to as stomach cancer—the rates and risk among Americans has been largely understudied. Now, after analyzing records of close to 400,000 patients, researchers in the Perelman School of Medicine at the University of Pennsylvania, have found that successfully eliminating *H. pylori* from one's gastrointestinal tract led to a 75 percent reduction in risk of gastric cancer. Researchers also found that rates of gastric cancer after detection of *H. pylori* infection are higher among specific populations, suggesting that people who fall into these groups could benefit from more careful monitoring. The study is published in the journal *Gastroenterology*.

H. pylori is estimated to infect half of the world's population, largely those in the eastern parts of the world. It can cause ulcers and other gastrointestinal issues but does not cause issues in the majority of people, and so many people are unaware they have it.

"The problem was that all research out of the U.S. used to study gastric [cancer](#) and determine American's risk of developing it did not take into account *H. pylori* [infection](#), and studies worldwide have shown this infection is actually the leading risk factor for this type of cancer," said the study's lead author Shria Kumar, MD, a fellow in the division of Gastroenterology.

The research team found that African American, Asian, Hispanic and Latinx, American Indian and Inuit Americans have significantly higher risk of *H. pylori* infection and of developing gastric cancer. Risks, when compared to the general population, are also higher among men, those

who smoke, and among those whose *H. pylori* infection is detected in older age.

"Discovering that these particular racial and ethnic groups are more likely to develop cancer after detection of this bacteria could influence clinicians' future screening practices and hopefully lead to early detection and management of gastric cancer," said Kumar.

Kumar and the research team also saw that eradication of *H. pylori* infection dropped gastric cancer risk by about 75 percent, but that simply prescribing the *H. pylori* regimen does not decrease the likelihood of getting this cancer. Authors noted that this finding suggests physicians should ensure that the bacteria is eradicated after treatment, a consensus guideline recommendation that is often not followed due to the cumbersome nature of *H. pylori* testing.

While *H. pylori* and gastric cancer have serious consequences, Kumar is optimistic that the information from this study can lead to further research on the merits of increasing screening. Screening for *H. pylori* requires an endoscopic procedure, breath test, or stool sample, so it's necessarily not easy. In addition, even among the number of people in the United States who contract *H. pylori*, most do not develop gastric cancer.

"According to estimates, there will be 27,000 new cases of gastric cancer in the U.S. this year, which is small compared to the prevalence of colorectal cancer—for which there is an estimated 101,000 new cases for 2019," said Kumar. "It's not feasible or necessary to screen everyone for *H. pylori* or [gastric cancer](#), but our study suggests that certain people may have high enough compounding risk to warrant regular invasive screenings and anyone treated for an *H. pylori* infection should be assessed to ensure eradication of the bacteria."

More information: Shria Kumar et al. Risk Factors and Incidence of Gastric Cancer After Detection of *Helicobacter pylori* Infection: A Large Cohort Study, *Gastroenterology* (2019). [DOI: 10.1053/j.gastro.2019.10.019](https://doi.org/10.1053/j.gastro.2019.10.019)

Provided by Perelman School of Medicine at the University of Pennsylvania

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