

Probiotic identified to treat ulcers

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Researchers from Spain have identified a strain of probiotic bacteria that may be useful in treating ulcers caused by *Helicobacter pylori*. They report their findings in the February 2011 issue of the journal *Applied and Environmental Microbiology*.

"*H. pylori* is considered one of the major risk factors underlying the development of gastritis and gastric and duodenal ulcers," write the researchers. "Currently, antibiotic-based treatment for *H. pylori* infection is neither sufficient nor satisfactory, with the most successful treatments reaching 75 to 90% eradication rates. The use of probiotics is a potentially promising tool to prevent *H. pylori*."

According to an expert consultation conducted by the Food and Agriculture Organization and the World Health Organization probiotics are "live microorganisms which when administered in adequate amounts confer a health benefit to the host." The regular intake of probiotic microorganisms has been demonstrated to prevent several disorders including diarrhea and [inflammatory bowel disease](#).

Among probiotics Bifidobacterium is one of the favorite genera in studies focused on the prevention of gastrointestinal infection and is often used in fermented dairy products or food supplements. Some studies have been done in vitro (in test tubes or petri dishes) showing bifidobacterial activity against *H. pylori*.

In this study, the researchers tested numerous strains of bifidobacteria isolated from the feces of breast-fed infants for activity against *H. pylori*. They identified one strain (Bifidobacterium bifidum CECT 7366) that under certain conditions had an inhibition level of nearly 95% in vitro and tested its activity against infection in mice.

After 21 days, mice treated with the potentially probiotic strain developed significantly less ulcers than the control group. Additional tests suggest that treatment partially relieved damage to gastric

tissue caused by *H. pylori* infection. Ingestion of the bacteria did not induce any disease or mortality in both healthy and immunocompromised mice.

"The results presented here confer to strain B. bifidum CECT 7366 the status of a probiotic bacterium with functional activity against *H. pylori*," write the researchers. "Human clinical trials must be performed before commercialization of this strain can be approved."

Provided by American Society for Microbiology

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