

Clinical trial backs use of special yogurt to fight stomach ulcer bacteria

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A new type of yogurt fights the bacteria that cause stomach ulcers. Manufacturers sell it in Japan under the name "Dr. Piro" and in Korea as "Gut." Credit: PharmaFood International Co., Ltd.

Results of the first human clinical studies confirm that a new yogurt fights the bacteria that cause gastritis and stomach ulcers with what researchers describe as almost vaccine-like effects, scientists in Japan will report today at the 237th National Meeting of the American Chemical Society.

Researchers have long known that [yogurt](#), a fermented milk product containing live [bacteria](#), is a healthy source of calcium, protein, and other nutrients. Some brands of yogurt are now made with "probiotics" — certain types of bacteria — intended to improve health. The new yogurt represents a unique approach to fighting [stomach ulcers](#), which

affect 25 million people in the United States alone, and is part of a growing "functional food" market that now generates \$60 billion in sales annually.

"With this new yogurt, people can now enjoy the taste of yogurt while preventing or eliminating the bacteria that cause stomach ulcers," says study coordinator Hajime Hatta, Ph.D., a chemist at Kyoto Women's University in Kyoto, Japan.

The new yogurt is already on store shelves in Japan, Korea, and Taiwan. The study opens the door to possible arrival of the product in the U.S., the researchers suggest.

A type of bacteria called *Helicobacter pylori* (*H. pylori*) or over-use of aspirin and or other nonsteroidal antiinflammatory drugs, causes most stomach ulcers. *H. pylori* ulcers can be effectively treated and eliminated with antibiotics and acid suppressants. However, that simple regimen is unavailable to millions of poverty-stricken people in developing countries who are infected with *H. pylori*. New research also links childhood *H. pylori* infection to malnutrition, growth impairment and other health problems. As a result, scientists have been seeking more economical and convenient ways of dealing with these bacteria.

In the new study, Hatta and colleagues point out that *H. pylori* seems to rely on a protein called urease to attach to and infect the stomach lining. In an effort thwart that protein, or antigen, Hatta turned to classic vaccine-making technology. They injected chickens with urease and allowed the chickens' immune systems to produce an antibody to the protein. The researchers then harvested the antibody, called IgY-urease, from chicken eggs. Hatta and colleagues theorized that yogurt containing the antibody may help prevent the bacteria from adhering to the stomach lining.

To test their theory, the scientists recruited 42 people who tested positive for *H. pylori*. The volunteers consumed two cups daily of either plain yogurt or yogurt containing the antibody for four weeks. Levels of urea, a byproduct of urease, decreased significantly in the antibody group when compared with the control group, indicating reduced bacterial activity, the researchers say.

"The results indicate that the suppression of *H. pylori* infection in humans could be achieved by drinking yogurt fortified with urease antibody," Hatta states. The antibody was eventually destroyed by stomach acid, but not before having its beneficial effect.

Although the yogurt appears less effective than antibiotics for reducing levels of *H. pylori*, it is a lot easier to take than medicine and can be eaten daily as part of regular dietary routine, Hatta says. The antibody does not affect the yogurt's overall taste and does not cause any apparent adverse side effects, he notes.

But anti-ulcer yogurt is not for everyone, Hatta cautions. He notes that people who are allergic to milk or eggs should avoid the product. Although the yogurt contains egg yolk, which tends to have lower allergen levels than egg white, an allergy risk still exists, he adds.

Source: American Chemical Society ([news](#) : [web](#))

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