

New research deepens understanding of most common gastrointestinal disorder in US

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Cedars-Sinai researchers have reported two advances in the understanding of Irritable Bowel Syndrome, the most common gastrointestinal disorder in the United States, affecting an estimated 30 million people.

One study provides further evidence that IBS is linked to an overgrowth of bacteria in the gut. In a separate study, a [mathematical model](#) reveals the disease's link to food poisoning and shows that military personnel are at a much higher risk for the disorder than the rest of the population.

"The better we understand this disease, which affects millions of Americans, the more tools we will have for fighting it," said Mark Pimentel, MD, director of the Cedars-Sinai GI Motility Program and a primary investigator on the studies. "Patients with this condition suffer serious quality of life issues. It's a disease that is frequently misunderstood and difficult for people to talk about, but it's important for the medical community to understand the causes of the disease so we can develop the most effective treatments possible."

The findings were reported at Digestive Disease Week, the world's largest gathering of physicians and researchers in gastroenterology, hepatology, endoscopy and [gastrointestinal surgery](#). The May 7-10 conference occurred in Chicago. IBS is the most common [gastrointestinal disorder](#) in the United States, affecting more than 20 percent of the population. Doctors commonly categorize patients with a "constipation predominant" condition, a "diarrhea-predominant"

condition, or an alternating pattern of diarrhea and constipation. These patients also often experience [abdominal pain](#) or cramps, excess gas or bloating, and visible abdominal distension.

In collaboration with researchers at Sismanogleion General Hospital in Athens, Greece, and at the University of Athens, scientists looked at small bowel cultures to confirm the presence of small intestinal bacterial overgrowth – or SIBO – in patients with IBS. Previous studies have indicated that bacteria have a role in the disease, including breath tests finding methane (a byproduct of bacterial fermentation in the gut), as well as the disease responding to antibiotics. In this study, 320 patients underwent an [endoscopy](#) of their upper GI tract, from which a small bowel culture was cultivated. Of those patients with IBS, 37.5 percent were positive for bacterial overgrowth in the small intestine, compared to fewer than 10 percent of those who did not have the disorder. The overgrowth was more prevalent in those with the diarrhea-predominant version of the disease. Researchers also found more different kinds of bacteria in IBS patients.

In a separate study, using a mathematical model, researchers concluded that [food poisoning](#) – gastroenteritis – may account for the majority of [irritable bowel syndrome](#) cases. Further, it predicts a greater incidence of the disease for populations at a higher risk of these kinds of infections, such as military personnel. The study was based on data from the Centers for Disease Control and other research studies. The model projects that 9 percent of those with a genetic predisposition would contract IBS after 10 years. However, among high risk groups such as deployed military, 9 percent of that population would develop the disease in a six month time frame.

"While everyone understands that our troops encounter great danger and difficult conditions while serving their country, this study reminds us that we need to pay greater attention to the dietary woes and digestive

upsets that long have been the subject of wry discussion among overseas forces," Pimentel said of the study results.

Provided by Cedars-Sinai Medical Center

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