

# Probiotics prevent deadly complications of liver disease

June 6 2014

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Probiotics are effective in preventing hepatic encephalopathy in patients with [cirrhosis of the liver](#), according to a new [study](#) in *Clinical Gastroenterology and Hepatology*, the official clinical practice journal of the American Gastroenterological Association. Hepatic encephalopathy is a deterioration of brain function that is a serious complication of liver disease.

"This rigorous new research finds that probiotics modify the gut microbiota to prevent hepatic encephalopathy in [patients](#) with cirrhosis of the liver," said David W. Victor III, MD, who contributed an [editorial](#) in *Clinical Gastroenterology and Hepatology* on this research. "These results offer a safe, well-tolerated and perhaps cheaper alternative to current treatments."

The investigators from Govind Ballabh Pant Hospital, New Delhi, India, conducted a single-center, prospective, open-label, randomized trial with cirrhosis patients who showed risk factors for hepatic encephalopathy, but had yet to experience an obvious episode. When comparing treatment with probiotics versus placebo, the researchers found that the incidence of hepatic encephalopathy was lower in patients treated with probiotics.

Probiotic supplementation was not associated with any side effects and none of the patients required discontinuation of therapy. These results suggest that probiotics are similar in effectiveness to the current standard of care, lactulose, in the prevention of hepatic encephalopathy, yet they

appear to be much better tolerated. The effectiveness of lactulose, a nonabsorbable disaccharide, is limited by side effects (diarrhea, bloating and gas) and a narrow therapeutic window.

"By virtue of its size, study duration and design, as well as the thorough nature of the baseline and follow-up assessments, this study represents an important contribution to the hepatic encephalopathy literature," added Dr. Victor, a practicing hepatologist in the Methodist J.C. Walter Jr. Transplant Center at Houston Methodist Hospital, TX.

Up to 45 percent of patients with cirrhosis develop [hepatic encephalopathy](#), a loss of [brain function](#) that occurs when the liver is unable to remove toxins from the blood. Prognosis is poor, with a 58 percent mortality rate at one year, and a 77 percent mortality rate at three years. Research into safer and more effective treatments is essential for these patients.

For more information on [probiotics](#), read AGA's patient [brochure](#).

The microbial communities that reside in the human gut and their impact on human health and disease are one of the most exciting and promising areas of research today. The [AGA Center for Gut Microbiome Research and Education](#) is committed to advancing this research.

Provided by American Gastroenterological Association

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