

Replacing Meat with Plant, Dairy Protein May Benefit People With Cirrhosis

Switching from meat to plant or dairy protein may reduce ammonia generation in those with cirrhosis.

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A [recent study](#) suggests that replacing meat in just meal with [protein](#) from a plant or dairy source could improve metabolite signatures linked to hepatic encephalopathy in people with [cirrhosis](#).

Cirrhosis is an advanced form of [liver disease](#) that has many causes. Alcoholism, autoimmune diseases, hepatitis B, hepatitis C and other conditions can give rise to cirrhosis, according to Hep's [Health Basics on Cirrhosis](#). With hepatitis, the virus attacks the liver and may gradually lead to the formation of scar tissue. Early damage is called [fibrosis](#); severe damage is cirrhosis.

Hepatic encephalopathy is a reversible syndrome observed in patients with advanced liver dysfunction, according to the [National Institutes of Health](#). Patients with hepatic encephalopathy often have elevated blood ammonia levels.

For this study, researchers investigated the effect of meat, vegan and vegetarian meals on ammonia generation in people with cirrhosis.

"The effect of protein intake on ammonia generation in cirrhosis is well known, as is the impact of vegetarian vs. meat-related diets," study author Jasmohan Bajaj, MD, of the division of gastroenterology, hepatology and nutrition at Virginia Commonwealth University, [told Healio](#). "However, it is unclear whether substituting meat to nonmeat alternatives could reduce ammonia generation, since this is a much more achievable solution for those who eat meat regularly."

The study involved 30 men who had previously been consuming a Western meat-based diet. The men were randomized to eat one of three 20-gram protein burgers equal in calories: bean (vegetarian), meat substitute (vegan) or pork/beef patty. Bajaj and colleagues collected baseline blood and ammonia samples from the men and every for three hours following a meal.

The ammonia levels of the men who consumed the meat-based option increased above baseline, but those of the men who ate vegetarian or vegan meals did not.

“The main take-home message is that removing meat even from a single meal can have major beneficial metabolomic consequences for patients with cirrhosis,” Bajaj told Healio. “Therefore, changing the diet or substituting some parts of it could be a simple and accessible method to reduce ammonia generation.”

Baja added that although these are preliminary findings, they could still be used to guide people to make healthier choices regarding their daily protein.

“Nutrition is an important tool in management of cirrhosis,” Bajaj said. “Consider involving a dietitian or colleagues who can discuss the dietary preferences of your patient in detail. The impact of the change in even one meal can be profound, and therefore, encouraging meat substitution without protein restriction could help patients.”

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