

# Sugar intake is not directly related to liver disease

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Despite current beliefs, sugar intake is not directly associated with nonalcoholic fatty liver disease, according to a new study in *Gastroenterology*, the official journal of the American Gastroenterological Association. Rather, high-calorie diets promote the progression of this serious form of liver disease.

Researchers conducted a double-blind study of healthy, but centrally overweight men to compare the effects of high intakes of two types of sugar, glucose and fructose, in two conditions—weight-maintaining (moderate-calorie diet) and weight-gaining (high-calorie diet). In the weight-maintaining period, men on neither diet developed any significant changes to the liver. However, in the weight-gaining period, both diets produced equivalent features of [nonalcoholic fatty liver disease](#), including steatosis (fatty liver) and elevated serum transaminase and triglycerides. These findings indicate that fructose and glucose have comparable effects on one's liver, and [calorie intake](#) is the factor responsible for the progression of liver disease.

"Based on the results of our study, recommending a low-fructose or low-glycemic diet to prevent nonalcoholic fatty liver disease is unjustified," said Professor Ian A. Macdonald, study author and faculty of medicine and health sciences, University of Nottingham, UK. "The best advice to give a patient is to maintain a healthy lifestyle with diet and exercise. Our study serves as a warning that even short changes in lifestyle can have profound impacts on your liver."

During the period of increased calorie intake, all study participants experienced significant increases in body weight, waist circumference and total body fat, as expected. Interestingly, satiety was unaltered in spite of weight gain during the high-calorie diet; this reinforces the notion of "hidden calories" in drinks since participants consumed a portion of their calories in liquid form.

Fructose is a simple sugar commonly found in fruits and vegetables. Glucose, also known as grape or blood sugar, is present in all major carbohydrates, such as starch and table sugar.

Nonalcoholic [fatty liver disease](#), the most prevalent liver problem in the U.S. and most Western countries, is the buildup of extra fat in liver cells that is not caused by alcohol. For more on how a low-calorie [diet](#) is the best prescription for this form of [liver disease](#), read the article "[NAFLD Treatment: Is there More to Talk About Other than Diet and Exercise?](#)" from the October/November issue of *AGA Perspectives*, the AGA Institute's most prominent non-scientific publication.

Provided by American Gastroenterological Association

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