

Weight-loss surgery can reduce liver damage

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Bariatric surgery, which is best known for its ability to help patients lose substantial weight, can also result in significant improvement in nonalcoholic fatty liver disease (NAFLD), according to new research presented today at Digestive Disease Week (DDW). Researchers at the University of South Florida-Tampa found that bariatric surgery resolved liver inflammation and reversed early-stage liver fibrosis, the thickening and scarring of liver tissue, by reducing fat deposits in the liver.

"About 30 percent of the U.S. population suffers from this disease, which is increasing, and more than half are also severely obese," said Michel Murr, MD, lead researcher of the study, professor of surgery and director of Tampa General Hospital and USF Health Bariatric Center. "Our findings suggest that providers should consider [bariatric surgery](#) as the treatment of choice for nonalcoholic fatty liver disease in severely obese patients."

Dr. Murr and his colleagues suggest that bariatric surgery be considered for patients with a [body mass index](#) greater than 35 and obesity-related co-morbidities, or a body mass index of greater than 40. They note that traditional interventions, such as medications, have a low success rate with these patients.

Researchers compared [liver biopsies](#) from 152 patients—one at the time of the bariatric procedure and a second an average of 29 months afterwards. In examining pre-operative biopsies, researchers identified patients with cellular-level manifestations of nonalcoholic fatty liver disease, specifically, fat deposits and inflammation of the liver. These

types of [liver damage](#) can lead to liver fibrosis and cirrhosis, which can be life-threatening.

After reviewing post-operative biopsies, they found that bariatric surgery resulted in improvements for these patients. In the post-operative biopsies, researchers found that fat deposits on the liver resolved in 70 percent of patients. Inflammation was also improved, with lobular inflammation resolved in 74 percent of patients, chronic portal inflammation resolved in 32 percent, and steatohepatitis resolved in 88 percent.

In addition to these improvements, 62 percent of patients with stage two liver fibrosis had an improvement or resolution of the fibrosis. One of three patients with cirrhosis also showed improvement. Dr. Murr noted that these findings on fibrosis reversal apply only to early-stage fibrosis, and not late-stage liver disease.

"We are in the midst of an obesity epidemic that can lead to an epidemic of nonalcoholic fatty liver disease," said Dr. Murr. "As a tool in fighting obesity, bariatric surgery could also help prevent the emergence of widespread liver disease."

Dr. Michel Murr will present data from the study "Bariatric surgery improves histological features of nonalcoholic [fatty liver disease](#) and liver fibrosis," abstract 233, on Sunday, May 4, at 8:30 a.m. CT, in room S504BCD of McCormick Place.

Provided by Digestive Disease Week

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