

# Experimental weight-loss drug slashed fat in livers of obese people

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Retatrutide, an experimental weight-loss drug that could compete against blockbusters Wegovy and Zepbound, may work wonders for obese folks with liver disease, new research shows.

A wider study, [published in June](#), found that retatrutide helped obese people lose about a quarter of their starting weight over an 11-month period.

Now, findings from a subset of participants in that trial showed that retatrutide also culled excessive fat from around the livers of [obese people](#)—essentially curing many from a dangerous condition called [fatty liver disease](#).

The research was funded by Eli Lilly and Co., which is developing retatrutide.

"The implications of this trial are, we could wipe out the fat very early in the course of this disease, before it becomes a real threat to the liver and, potentially, reduce the long-term cardiac, metabolic, renal [kidney] and liver-related harm from obesity," said sub-study lead [Dr. Arun Sanyal](#), of Virginia Commonwealth University (VCU) in Richmond.

"We are encouraged by these results and how they can potentially help tackle a disease that is currently without any approved therapies," added Sanyal, who directs VCU's Stravitz-Sanyal Institute for Liver Disease and Metabolic Health.

The weight-loss results from the larger trial were published in the [New England Journal of Medicine](#) in June.

The newer data, from a subset of patients with liver disease, was presented Nov. 13 at a meeting of the American Association for the Study of Liver Diseases in Boston.

The buildup of high levels of fat in and around the liver is a common side effect of obesity, and it often occurs alongside a diagnosis of type 2 diabetes.

According to Sanyal's team, up to 70% of people with type 2 diabetes also have unhealthy levels of fat in their livers.

Much like Wegovy and Zepbound, retatrutide activates cellular receptors involved with controlling hunger and feeling full. People who take these medications may feel fuller for longer, which in turn can help them regulate eating and spur [weight loss](#).

Would taking retatrutide help clear excess fat in the liver, too?

To find out, Sanyal's group randomly assigned 98 obese adults to receive a higher or lower dose of the drug. They then monitored each patient for fluctuations in levels of liver fat over the next eight months.

By the end of the trial, people given the smaller 8 milligram (mg) dose of retatrutide experienced an average 81.7% reduction in their liver fat, the team reported. Those given the 12 mg dose experienced an average 86% reduction in liver fat.

"Significantly, by week 48, 93% of patients taking the higher dose lost enough liver fat to drop below 5%," Sanyal noted in a VCU news release.

Reducing liver fat to less than 5% of the organ's total weight means that a patient would now fall beneath the threshold needed for a diagnosis of [fatty liver disease](#).

That kind of improvement "is quite dramatic," said Sanyal, who has also been a paid consultant for Lilly.

"Because in obese populations, as much as 75% of the patients would have excess fat in the liver, but now we could have a treatment that allows you to wipe out the liver fat in patients with early-stage [liver](#)

disease," he said.

Over the eight-month study, people taking low-dose retatrutide also lost about 24% of their [body weight](#), while those taking the 12 mg dose lost an average of about 26%.

Because these findings were presented at a medical meeting, the results should be considered preliminary until published in a peer-reviewed journal.

**More information:** Find out more about fatty liver disease at the [American Liver Foundation](#).

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