Alternating Fast and Feast Days Linked to Lower Liver Fat

People with NAFLD who fasted on alternate days also experienced drops in weight and waist size.

March 17, 2023 By Sukanya Charuchandra

People with obesity and non-alcoholic fatty liver disease (NAFLD) who fasted every other day, especially when combined with exercise, experienced significant decreases in liver fat, weight and waist circumference, according to study findings published in Cell Metabolism.

Arising from the accumulation of fat in the liver, NAFLD and its more severe form, non-alcoholic steatohepatitis (NASH), are responsible for a growing proportion of advanced liver disease worldwide. Often associated with obesity and diabetes, NAFLD can lead to fibrosis, cirrhosis and even liver cancer. With no effective approved medical therapies, disease management is dependent on lifestyle changes such as weight loss and exercise.

Krista Varady, PhD, of the University of Illinois at Chicago, and colleagues examined the impact of alternate-day fasting and exercise on intrahepatic triglyceride levels, a measure of liver fat.

The researchers recruited 80 adults with obesity and NAFLD, 81% of whom were women. The study population was randomized into four groups. For three months, the respective groups fasted on alternate days and exercised, only fasted, only exercised or did neither. The participants who followed the fasting plan recorded their dietary intake. Those in the exercise groups used an elliptical machine for one hour five days per week.

After three months, the researchers found that liver fat dropped by 5.48% among participants who both fasted every other day and exercised compared with people who only fasted (2.25% decline), only exercised (1.30% decline) or did neither (0.17% decline). However, the results for the combined fasting and exercise group were not significantly different from those for the group that only fasted.

“Combining intermittent fasting with exercise is effective for reducing hepatic steatosis in patients with NAFLD but may offer no additional benefit versus fasting alone,” wrote the researchers.

People in the combined fasting and exercise group also experienced significant decreases in their body weight, fat mass, waist circumference and alanine transaminase liver enzyme levels when compared with those who did neither. What’s more, insulin sensitivity rose significantly in the

combination group compared with the control group.

“When we compared the results of our study groups, we saw clearly that the most improved patients were in the group that followed the alternate-day fasting diet and exercised five days a week,” Varady said in a press release. “The people who only dieted or only exercised did not see the same improvements, which reinforces the importance of these two relatively inexpensive lifestyle modifications on overall health and on combating chronic diseases like fatty liver disease.”

Click here to read the study abstract in Cell Metabolism.

Click here for more news about fatty liver disease.
