

Lean People With NAFLD May Have Higher Risk of Death

Lean people had a higher mortality rate despite experiencing fewer metabolic problems.

July 7, 2023 By [Sukanya Charuchandra](#)

Despite having fewer metabolic comorbidities, lean people with [non-alcoholic fatty liver disease \(NAFLD\)](#) appear to have a higher risk of death than those with overweight or obesity, according to findings published in *Alimentary Pharmacology & Therapeutics*. <https://onlinelibrary.wiley.com/doi/10.1111/apt.17424>

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. As a result of inflammation, NAFLD can lead to liver fibrosis, cirrhosis and even [liver cancer](#). With no approved medical therapies, disease management is dependent on lifestyle changes such as weight loss and exercise.

Fatty liver disease is often associated with abdominal obesity, hypertension, elevated blood sugar and abnormal blood fat levels, collectively known as metabolic syndrome. While NAFLD is more common among people with overweight or obesity, [a substantial proportion](#) of those with fatty liver disease have a normal weight. But little is known about comorbidities and mortality among lean people with NAFLD.

Anna Lok, MD, of the University of Michigan Ann Arbor, and colleagues conducted a study of adults with NAFLD at the University of Michigan Health System from 2012 to 2021. The researchers compared the risk of death and new diagnoses of cirrhosis, diabetes, heart disease and cancer among lean and nonlean individuals.

For this retrospective study, the researchers included 18,594 people in a cross-sectional (single point in time) analysis 13,420 people in a longitudinal (followed over time) analysis with a median follow-up period of 49.3 months. Just over half were women and the median age was 51 years. Overall, 11% were lean, 25% were overweight, 28 had Class 1 obesity and 35% had more severe Class 2 or 3 obesity.

Compared with all the other weight groups, lean people had a much lower incidence of metabolic comorbidities at study initiation. Over time, the lean group was less likely to develop cirrhosis and diabetes. The incidence of heart disease and all types of cancer were similar across all groups

during follow-up.

Despite the lower incidence of metabolic conditions in the lean group, their risk of death was significantly higher. Mortality rates were 16.7, 10.1, 7.4 and 8.9 deaths per 1,000 person-years, respectively, in the lean, overweight, Class 1 obesity and Class 2-3 obesity groups. Taking into account confounders, the researchers noted that people with overweight or obesity had a lower risk of death than those who are lean.

“Lean patients with NAFLD had higher mortality despite lower incidence of cirrhosis and DM, and similar incidence of cardiovascular and cancer and merit similar if not more attention as non-lean patients with NAFLD,” the researchers concluded.

Click here to read the study in [Alimentary Pharmacology & Therapeutics](#).

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