

Niacin Linked to Lower Risk of Death in People With MASLD

However, higher intake of vitamin B3 did not significantly lower cardiovascular mortality specifically.

April 30, 2024 By [Sukanya Charuchandra](#)

Higher levels of dietary niacin, also known as vitamin B3, may positively affect the risk of all-cause mortality among people with [metabolic dysfunction-associated steatotic liver disease \(MASLD\)](#), according to study findings published in [JAMA Network Open](#).

Arising from the accumulation of fat in the liver, MASLD and its more severe form, metabolic dysfunction-associated steatohepatitis (MASH), are responsible for a growing proportion of advanced liver disease worldwide. MASLD, the [new name](#) for non-alcoholic fatty liver disease (NAFLD), is often associated with obesity, type 2 diabetes and other risk factors for cardiovascular disease. Over time, the buildup of fat in the liver can lead to liver fibrosis, [cirrhosis](#) and even [liver cancer](#). Until this year, there were no approved medical therapies, so management has relied on lifestyle changes such as weight loss and exercise.

Whether dietary niacin affects mortality in people with MASLD is not well established. Jie Pan, MBBS, of Sun Yat-sen University in China, and colleagues examined the impact of higher levels of niacin intake on all-cause and cardiovascular mortality in people with fatty liver disease.

Niacin is used to increase levels of high-density lipoprotein, or good cholesterol. It is one of the precursors of nicotinamide adenine dinucleotide synthesis, which may play a role in preventing and treating liver disease, the study authors noted as background. Population studies have shown that niacin can reduce liver fat content and improve fatty liver disease. In preclinical research, it has been found to inhibit and reverse liver steatosis and inflammation and prevent fibrosis, they added.

The researchers used data from the U.S. National Health and Nutrition Examination Survey (2003–2018). The study cohort included 4,315 people with MASLD. More than half (55%) were men, and the average age was 53 years. About two thirds were white, 14% were Mexican American and 6% were Black. People with hepatitis B or C or heavy alcohol consumption, which can also cause advanced liver disease, were excluded.

Using a standard dietary interview, the study population was divided into three different groups

based on their daily dietary niacin intake. Some 1,440 people had a niacin intake of at most 18.4 milligrams per day, 1,441 had an intake between 18.5 and 26.6 mg and 1,434 had an intake of 26.7 mg or more.

Over an average follow-up period of 8.8 years, the researchers noted 566 deaths, of which 197 were due to cardiovascular disease. After adjusting for other variables, they found that people with the highest intake had a lower risk for all-cause mortality compared to the group with the lowest niacin intake, while those with moderate intake fell in between. However, there was no significant association between daily niacin intake and cardiovascular death, in particular.

“Findings from this cohort study suggest that higher dietary niacin intake may be associated with lower risk of all-cause mortality among individuals with NAFLD,” wrote the researchers. “There was no evident inverse association between dietary niacin intake and the risk of cardiovascular [cardiovascular] mortality.”

“The dose-response association of dietary niacin intake with reducing the risk of all-cause and cardiovascular mortality among patients with NAFLD needs to be further investigated to determine optimal intake levels,” they concluded.

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