

People With Both NAFLD and Diabetes Experience Greater Fibrosis Progression

Among people with fatty liver disease, those with diabetes were more likely to advance by one fibrosis stage in less than six years.

December 29, 2022 By [Sukanya Charuchandra](#)

People with both [non-alcoholic fatty liver disease \(NAFLD\)](#) and diabetes were nearly 75% more likely to see their fibrosis advance by at least one stage than those without diabetes, according to findings presented at the [AASLD Liver Meeting](#).

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. In many cases, liver fat accumulation is associated with obesity and diabetes. As a result of inflammation, NAFLD can lead to the buildup of scar tissue (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.

Diabetes also has been linked to greater incidence of severe fibrosis, cirrhosis and liver cancer. Daniel Huang, MBBS, of the University of California San Diego, and colleagues examined how quickly fibrosis advanced in people with biopsy-confirmed NAFLD who did and did not have diabetes.

For this study, the researchers included adults with NAFLD who had paired liver biopsies at least a year apart. A total of 447 participants, 64% of them women, were recruited across eight sites in the United States.

At baseline, 208 participants had diabetes while 239 did not have diabetes. Participants with diabetes at baseline were more likely to be older and women. They also had a higher body mass index and higher baseline fibrosis stage.

Of the 447 participants, 35% experienced fibrosis progression, 23% had fibrosis regression and 43% experienced no change. The researchers found that the fibrosis progression rate was higher among people with diabetes than among those without diabetes, and more people with diabetes progressed to advanced fibrosis (26% versus 14%). Diabetes was an independent risk factor for

fibrosis progression even after adjusting for other factors.

People with diabetes had a 73% higher risk of advancing at least one fibrosis stage—for example, from mild to moderate or moderate to severe—than people without diabetes. Among people with diabetes, fibrosis progressed by 0.17 stages per year, meaning it would take 5.9 years to advance one stage. Among people without diabetes, fibrosis progressed by 0.13 stages per year, meaning advancing one stage would take 7.7 years. On the other hand, fibrosis regression rates were similar in people with and without diabetes, with fibrosis regressing by one stage in 7.7 versus 7.1 years, respectively.

“Utilizing paired liver biopsy data from a uniquely well-phenotyped, multicenter prospective cohort study, here we demonstrate that diabetic patients with NAFLD have a significantly higher fibrosis progression rate,” the researchers concluded. “These data have important implications for clinical practice and clinical trial design.” They suggested people with NAFLD and diabetes may require more frequent monitoring for liver disease progression.

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