

Men With Cirrhosis Have Higher Risk of Liver Complications Than Women

Men with chronic liver disease, especially if alcohol-related, were at greater risk for liver failure and liver cancer.

September 15, 2025 By [Sukanya Charuchandra](#)

Men with cirrhosis are more likely than women to develop serious liver complications, according to a large U.S. cohort study that tracked more than 430,000 patients over 15 years. The study, published in [JAMA Network Open](#), found that men had a markedly higher risk for decompensated cirrhosis, liver cancer and liver transplantation, with the sharpest disparities linked to alcohol-related and metabolic liver disease.

“These findings suggest that sex-based approaches should be considered for monitoring and management of adult patients with cirrhosis for potential interventions in the risk of adverse liver events,” the study authors wrote.

Over time, chronic [hepatitis B](#) (HBV), [hepatitis C](#) (HCV), [metabolic dysfunction-associated steatotic liver disease](#) (MASLD) and [heavy alcohol use](#) can lead to complications including liver fibrosis, [cirrhosis](#), hepatocellular carcinoma (HCC, the most common type of [liver cancer](#)), decompensation (liver failure) and the need for a [liver transplant](#).

Yu Shi, MD, PhD, of Stanford University Medical Center, and colleagues conducted a study to explore sex differences in the risk of adverse liver events among people with cirrhosis. The retrospective cohort study identified 438,706 people with cirrhosis from the Merative MarketScan Research Databases, a private health insurance claims database. Just over half were men, and the average age was 57 years. For their analysis, the researchers matched 169,711 pairs of men and women.

The comparison showed that men had a higher incidence of decompensated cirrhosis (65.77 versus 55.35 cases per 1,000 person-years), hepatocellular carcinoma (6.98 versus 3.35 cases) and liver transplants (10.23 versus 6.27 cases). Male sex was linked to a 16% higher risk of decompensation, a 63% higher risk of liver transplantation and a 110% higher risk of liver cancer.

Male sex was associated with the highest risk of adverse liver events among people with alcohol-related liver disease, including a 13% higher risk of decompensated cirrhosis, a 36% higher risk of liver transplantation and a 140% higher risk of liver cancer. This was followed by those with

MASLD and hepatitis C. The only sex difference that showed up among people with hepatitis B was a 60% higher risk of liver cancer for men.

“The findings of this cohort study of adult patients with cirrhosis suggest that significant sex differences in liver complication risk exist, which was more pronounced in nonviral (alcohol-related liver disease and metabolic dysfunction-associated steatotic liver disease) compared with viral (HBV and HCV) cirrhosis,” the researchers concluded.

“As MASLD and [alcohol-related liver disease] are leading causes of cirrhosis in high-income countries and are projected to rise globally, future cirrhosis management strategies, in particular HCC surveillance, should be sex-based,” they wrote. “Our findings support incorporating sex as a variable in risk stratification for cirrhosis-related complications....In addition, further research is needed to identify modifiable factors underlying these sex-based differences, such as differences in medication adherence or lifestyle factors, for potential interventions.”

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