

# Hepatitis B virus mutations may predict risk of liver cancer

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Certain mutations in the DNA of the hepatitis B virus (HBV) are associated with the development of liver cancer and may help predict which patients with HBV infections are at increased risk of the disease, according to a large meta-analysis in the *Journal of the National Cancer Institute*, published online July 2.

HBV infection is a known cause of hepatocellular [carcinoma](#) (HCC), the most common form of liver [cancer](#). Previous studies have looked at whether patients with specific [mutations](#) in the viral DNA may be at increased risk of developing the cancer, but most of the studies were small and they produced conflicting results.

This meta-analysis, conducted by Guangwen Cao, M.D., Ph.D., of the Second Military Medical University in Shanghai and colleagues, included 43 studies with a total of 11,582 HBV-infected participants, of whom 2,801 had HCC. The researchers found that certain mutations were associated with development of HCC and more prevalent as chronic HBV infection progressed from the asymptomatic state to liver cirrhosis or HCC.

"Frequent examination of patients with chronic HBV infections for the presence of these mutations may be useful for identifying which patients require preventive antiviral treatment and for the prediction of HCC," the authors write.

Source: Journal of the National Cancer Institute ([news](#) : [web](#))

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