Chronic Liver Disease

Chronic liver disease can be caused by a variety of conditions but is most commonly caused by nonalcoholic fatty liver disease (https://www.radiologyinfo.org/en/info/fatty-liver-disease) , hepatitis C, hepatitis B, and alcohol-related liver disease. Over time, these conditions can lead to fibrosis (thickening, scarring of tissue) and to cirrhosis, in which the damage is so extensive that the liver does not function normally. These diseases can also result in liver cancer (hepatocellular carcinoma [HCC]).

In individuals with chronic liver disease, imaging tests are useful to confirm the presence and severity of fibrosis. MR elastography abdomen finds stiffening of the liver, and ultrasound shear wave elastography abdomen is usually appropriate for diagnosing and staging of fibrosis.

Individuals who have chronic viral hepatitis and cirrhosis are at high risk for developing HCC and should undergo screening with imaging. Ultrasound abdomen (https://www.radiologyinfo.org/en/info/abdominus) , MRI abdomen (https://www.radiologyinfo.org/en/info/mri-abdomen-pelvis) without and with intravenous (IV) contrast, and MRI abdomen without and with hepatobiliary contrast are usually appropriate imaging tests to diagnose HCC. MRI abdomen without IV contrast may also be appropriate.

For individuals with HCC, surveillance after treatment with imaging tests is recommended to detect a possible return of cancer. MRI abdomen without and with IV contrast, CT abdomen with IV contrast multiphase, CT abdomen without and with IV contrast, and MRI abdomen without and with hepatobiliary contrast are usually appropriate tests. The current guidelines recommend a CT or MRI scan every 3 to 6 months for 2 years and then every 6 to 12 months after the cancer is removed.

— By Emmanuel Budis and Jennifer W. Uyeda, MD. This information originally appeared in the *Journal of the American College of Radiology*.

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