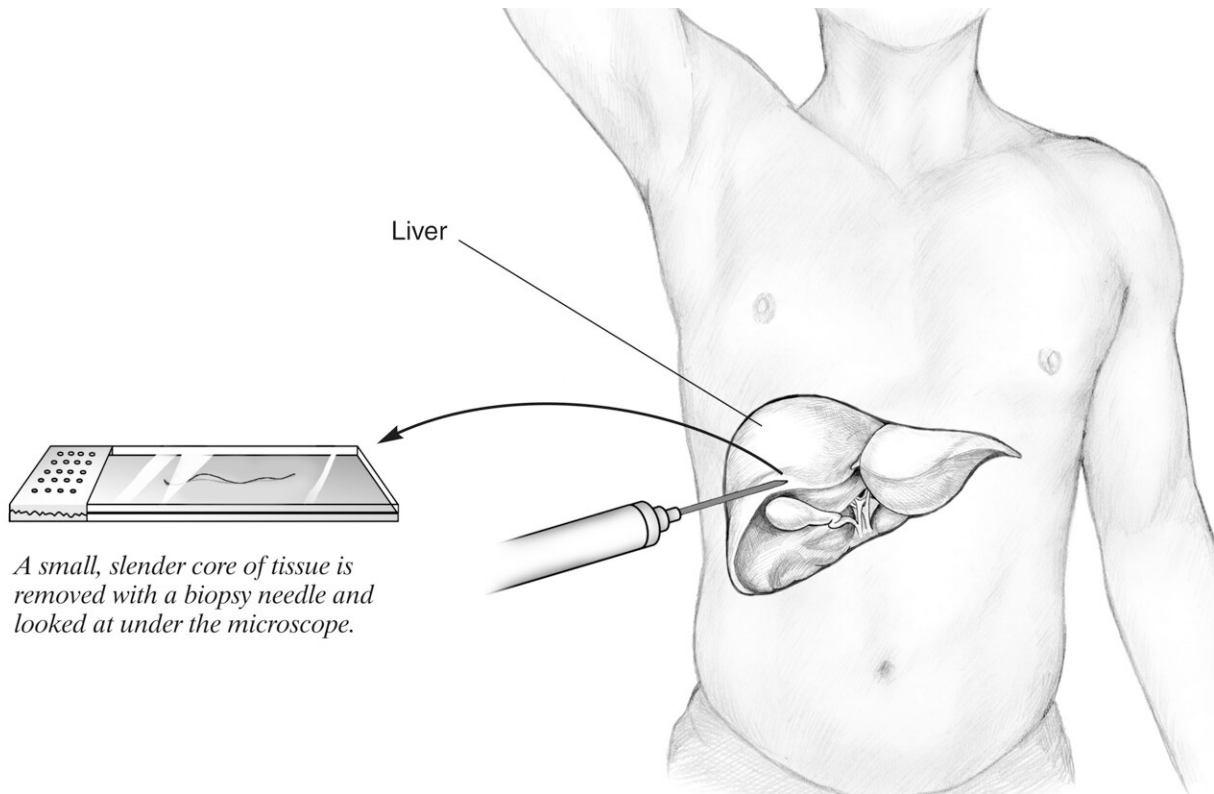


Finding the right diagnosis with liver biopsy

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Liver Biopsy. Credit: National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health

The popularity of noninvasive options to diagnose liver disease has been growing, but are there times when more traditional methods like liver biopsy are still needed for a precise diagnosis?

Medical University of South Carolina hepatologist and researcher Don Rockey, M.D., and his team recently set out to answer that question. They examined 80 patients with a variety of suspected liver issues. Their goal was to understand the importance of [biopsy](#) in reaching the correct diagnosis. They report their study's [findings](#) in the *Journal of Clinical Gastroenterology*.

"Our study shows that that biopsy continues to be valuable as part of our diagnostic arsenal," said Rockey.

What is a biopsy?

A biopsy is simply the process of sampling a piece of tissue from a patient's body to examine it closely for markers of disease.

For example, a liver biopsy can be performed if a doctor suspects something is wrong with a patient's liver. In this case, a needle is inserted into the patient's abdomen to extract a tiny portion of the liver. That sample of the liver is examined under a microscope to see if it contains any features that might indicate a certain disease or injury.

Biopsy is one tool in a large toolbox for diagnosing [liver disease](#), which also includes imaging and blood tests.

However, as with many [medical tests](#), there are risks associated with biopsy.

"It can cause bleeding and pain. There is even a small risk for severe bleeding," said Rockey. "If the bleeding is severe, death can even occur, but that's very, very uncommon—one in 5,000 to one in 10,000. By comparison, it's certainly not as risky as having a major surgery, but there is some risk."

These risks cause some doctors to shy away from biopsies.

Despite the risks, Rockey still recommends that providers consider [liver biopsy](#) in some circumstances.

"In the right time, the right place and the right patient, it's valuable," he said.

Biopsy's place in diagnosis

Rockey and his team found that biopsy was often crucial to making the right diagnosis.

The diagnoses that patients received before their biopsies matched up with their biopsy results just under two-thirds of the time. In over a third of the cases, however, biopsy was essential to making the correct diagnosis.

The numbers varied by disease as well. Autoimmune hepatitis was the most difficult disease to diagnose without a biopsy, while liver fibrosis was diagnosed correctly more than two-thirds of the time, even in the absence of biopsy.

Surprisingly, six of the 80 study patients who were thought to have some kind of liver issue before their biopsy did not have a liver issue at all.

"I think biopsy is most valuable when there is some diagnostic dilemma," Rockey said. "So when we're not sure about what the problem is, biopsy is indicated and very useful."

In fact, Rockey suggests that patients advocate for their own biopsy when there is no clear diagnosis.

"Patients whose physicians say 'You have abnormal liver functions or abnormal liver tests, and I don't know why' should ask about biopsy," Rockey suggested.

Rockey and his team are also investigating ways to limit the risk of biopsy. They are examining whether biopsy can be performed effectively via an endoscope while minimizing risk and pain. This new form of biopsy may make the procedure more accessible, which in Rockey's estimation, is a very good thing.

"Biopsy is an important part of making a correct diagnosis for many patients," he said.

More information: Ali Khalifa et al, The Value of Liver Biopsy and Histology in Liver Disease Diagnosis and Patient Care—a Pragmatic Prospective Clinical Practice Study, *Journal of Clinical Gastroenterology* (2023). [DOI: 10.1097/MCG.0000000000001950](https://doi.org/10.1097/MCG.0000000000001950)

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