

Patient information: Liver biopsy (Beyond the Basics)

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LIVER BIOPSY OVERVIEW

The liver is a large organ that is located in the right upper abdomen beneath the rib cage ([figure 1](#)). It performs many functions that are essential to life.

A liver biopsy is a procedure that involves obtaining a small piece of liver tissue, which is then analyzed in the laboratory. Liver biopsy may be recommended to diagnose a problem or determine the severity of liver disease. The most common reason to obtain a liver biopsy is to determine if there is scar tissue in the liver (and if there is, how much) in a person with chronic liver disease.

REASONS FOR LIVER BIOPSY

As a general rule, a liver biopsy is recommended only when the results would affect your treatment or management. Some of the more common reasons for liver biopsy include:

- Non-alcoholic fatty liver disease (NAFLD) — NAFLD is a condition in which there are increased amounts of fat in the liver. A liver biopsy may be done to confirm the diagnosis of NAFLD or to see how severely the liver is damaged. NAFLD is the most common reason for liver biopsy. (See "[Patient information: Nonalcoholic steatohepatitis \(NASH\) \(Beyond the Basics\)](#)".)
- Certain liver diseases, such as chronic hepatitis B or C, primary biliary cirrhosis, primary sclerosing cholangitis, autoimmune hepatitis, hemochromatosis or Wilson's disease. A biopsy can provide information about how severely the liver is damaged. (See "[Patient information: Hepatitis B \(Beyond the Basics\)](#)" and "[Patient information: Hepatitis C \(Beyond the Basics\)](#)" and "[Patient information: Hemochromatosis \(hereditary iron overload\) \(Beyond the Basics\)](#)" and "[Patient information: Autoimmune hepatitis \(Beyond the Basics\)](#)".)
- Unexplained liver disease or abnormal liver function tests (blood tests that reflect injury to the liver).
- Evaluation of a mass seen on an imaging test like an ultrasound, computed tomographic ("CAT") scan, or MRI.
- Monitoring the liver following a liver transplant.

A liver biopsy may also be helpful in people with unexplained fevers, those with certain rare metabolic diseases, and other less common disorders.

LIVER BIOPSY PREPARATIONS

Prior to a liver biopsy, a healthcare provider will check blood tests that reflect how well your blood clots. Normal blood clotting is important to prevent bleeding after the biopsy.

You should carry a list of your medications, including over-the-counter medications, herbs, and vitamins. Discuss this list with your clinician before the biopsy to see if you need to stop any medications, herbs, or vitamins temporarily.

Medications to avoid before liver biopsy — Patients are usually advised **not** to take medications that can increase the risk of bleeding. These include the following:

- Aspirin or aspirin-containing medicines.
- Other nonsteroidal antiinflammatory drugs (NSAIDs) such as ibuprofen (eg, Motrin®, Advil®), and naproxen (eg, Aleve®). Many non-prescription medicines contain NSAIDs, so check the labels or ask your pharmacist for help.
- Medicines used to prevent blood clots, such as warfarin (Coumadin®).
- Certain medicines for heart conditions (such as abciximab [Reopro®], dipyridamole [Persantine®], ticlopidine [Ticlid®], and clopidogrel [Plavix®]).
- Some herbal therapies (such as fish oil or ginkgo biloba).

Do not stop any medications without first talking with your clinician.

Testing before liver biopsy — It is common to have an ultrasound of the liver and gallbladder area before the biopsy so that your doctor can pinpoint the biopsy site. Ultrasounds are not required in every case; the need for ultrasound will be determined by the doctor who does the biopsy.

Eating before liver biopsy — You should have nothing to eat or drink for six hours before the procedure. You may be allowed to have a light breakfast only, such as black tea or coffee and toast. Some doctors recommend eating a small amount of fat (such as butter or margarine) with breakfast, which will empty the gallbladder and potentially decrease the risk of gallbladder injury during the biopsy.

LIVER BIOPSY PROCEDURE

Most liver biopsies are done in a hospital. Upon arrival for the biopsy (usually in the early morning), a doctor or nurse will review your medical history, including medications and allergies. You may have an IV line placed into a vein so that fluid and medicine can be given if needed.

You may be given medicines to minimize discomfort and anxiety. Because your cooperation is needed during a liver biopsy, you will not be put to sleep.

The biopsy itself only takes a few seconds as the biopsy needle is passed quickly in and out of the liver. A small bandage will be applied to the biopsy site; stitches are not needed.

LIVER BIOPSY COMPLICATIONS

A liver biopsy is a very safe procedure when performed by an experienced doctor. The most common problems include mild pain and a minor decrease in blood pressure. More serious complications, such as bleeding, infection, and injury to nearby organs, are very rare.

CARE AFTER LIVER BIOPSY

Following the liver biopsy, you will be asked to lie on your right side, and a nurse will monitor your blood pressure and pulse periodically. Many people watch television or a video, read, or talk with friends or family.

You will need to arrange to have someone take you home after the biopsy because sedative medications are often used. A friend or family member can also help pass the time during the few hours of observation following the biopsy.

In addition to resting the day of the biopsy, you should plan to take it easy for the next five to seven days. In general, you should not lift more than 15 to 20 pounds for a week, avoid blood thinning medication for several days, and call with any concerning symptoms, including the following:

- Severe pain at the biopsy site or shoulder
- Shortness of breath
- Chest pain
- Bleeding from the biopsy site
- Fever (temperature greater than 100.4°F or 38°C)
- Abdominal pain
- Weakness, sweating
- Heart palpitations
- Blood in your stool or black tarry stool

Biopsy results — The biopsy report is usually available within a few days to a week after the biopsy. Call your doctor or make a follow-up appointment to discuss the results of the biopsy and what treatment (if any) is needed.

WHERE TO GET MORE INFORMATION

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our web site (www.uptodate.com/patients). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

[Patient information: Cirrhosis \(The Basics\)](#)

[Patient information: Jaundice in adults \(The Basics\)](#)

[Patient information: Liver cancer \(The Basics\)](#)

[Patient information: Toxic hepatitis \(The Basics\)](#)

[Patient information: Primary biliary cirrhosis \(The Basics\)](#)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

[Patient information: Nonalcoholic steatohepatitis \(NASH\) \(Beyond the Basics\)](#)

[Patient information: Hepatitis B \(Beyond the Basics\)](#)

[Patient information: Hepatitis C \(Beyond the Basics\)](#)

[Patient information: Hemochromatosis \(hereditary iron overload\) \(Beyond the Basics\)](#)

[Patient information: Autoimmune hepatitis \(Beyond the Basics\)](#)

Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

[Percutaneous, fine-needle aspiration, and laparoscopic liver biopsy](#)

[Transjugular liver biopsy](#)

The following organizations also provide reliable health information.

- National Library of Medicine

(www.nlm.nih.gov/medlineplus/ency/article/003895.htm)

- National Institute of Diabetes and Digestive and Kidney Diseases

(<http://digestive.niddk.nih.gov/ddiseases/pubs/liverbiopsy/>)

[1-3]

Literature review current through: Nov 2013. | **This topic last updated:** Jun 12, 2013.

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