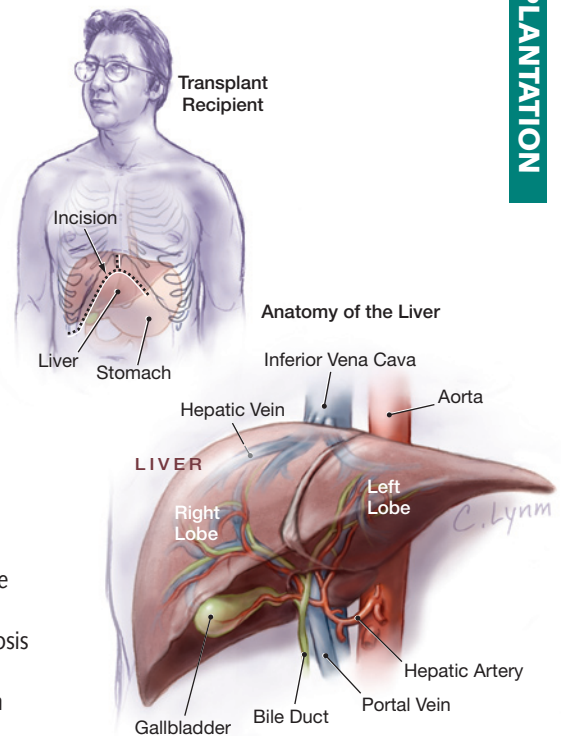


# Liver Transplantation

The liver has many functions, including building proteins and other substances for the body to use, removal of waste products and toxins from the blood, drug metabolism, and energy storage. Liver disease causes these crucial functions to fail. When liver failure is too severe to respond to medications, liver transplantation may be an option. Because transplantation is a major surgical procedure and there is a shortage of available donor organs, not every person with liver failure can receive a transplant. At each transplant center, a multidisciplinary team reviews and selects patients who are then placed on a waiting list for a suitable donor organ. These donor organs are allocated by the organ donor coordinators based on need (most severely ill persons) and compatibility of donor and recipient. The May 10, 2006, issue of JAMA includes an article about serious liver disease and liver transplantation.



## REASONS FOR LIVER TRANSPLANTATION

- Hepatitis C and hepatitis B—forms of hepatitis (liver infections) that can cause serious, permanent liver damage
- Cirrhosis (permanent liver damage from diseases such as primary biliary cirrhosis and inherited liver diseases or from alcohol abuse)
- In children, **biliary atresia** (failure of bile duct formation) is the most common reason for needing a liver transplant
- Toxic hepatic failure (can occur from eating poisonous mushrooms or from overdoses of drugs such as acetaminophen)
- **Hepatocellular carcinoma** (a primary cancer of the liver tissue), when found at an early, treatable stage

## AFTER A LIVER TRANSPLANT

Liver transplantation is a major operation that takes place only in specialized transplant centers. The diseased liver is removed through an abdominal incision. The liver's blood supply (**portal vein**, **inferior vena cava**, and **hepatic artery**) and the **biliary system** are all connected to the new liver after it is placed into the abdominal cavity. Persons who have liver transplants require intensive care and close monitoring after their operation. In a few cases, only part of a healthy liver from a living (usually related) donor may be used. This requires the donor to have an operation to remove a part of their liver, which is then transplanted into the person with liver failure.

## POSSIBLE TREATMENTS

- Immunosuppressive medications (drugs that prevent rejection of the transplanted organ) must be taken for the rest of the individual's life.
- The transplanted liver is monitored for function and for rejection, and the medication regimen is often adjusted.
- Persons with transplanted organs should avoid contact with ill individuals to prevent infection. Illnesses that healthy persons can tolerate have serious consequences for patients who are taking immunosuppressive medications.

Sources: National Institute of Diabetes and Digestive and Kidney Diseases; American Liver Foundation; United Network for Organ Sharing; American Gastroenterological Association

Janet M. Torpy, MD, Writer

Cassio Lynn, MA, Illustrator

Richard M. Glass, MD, Editor

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## FOR MORE INFORMATION

- National Institute of Diabetes and Digestive and Kidney Diseases  
[www.niddk.nih.gov](http://www.niddk.nih.gov)
- American Liver Foundation  
800/465-4837  
[www.liverfoundation.org](http://www.liverfoundation.org)
- United Network for Organ Sharing  
888/894-6361  
[www.unos.org](http://www.unos.org)

## INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at [www.jama.com](http://www.jama.com). Many are available in English and Spanish. A Patient Page on hepatitis C was published in the May 14, 2003, issue; and one on suppressing the immune system for organ transplants was published in the May 10, 2000, issue.

