

Liver Disease

[Alcoholic Liver Disease](#)

[Viral Liver Disease](#)

Chronic Liver Disease and/or Cirrhosis

Patients who suffer from chronic liver disease may develop cirrhosis after years of disease. Cirrhosis of the liver is a serious condition characterized by severe scarring. Not everyone with hepatitis or liver disease develops cirrhosis. If your doctor has told you that you have chronic liver disease and/or cirrhosis, there are important precautions that you should take to prevent further damage to your liver.

Can I drink alcohol?

No, you should not drink alcohol. Alcohol damages liver cells. A healthy liver is able to replace most liver cells that are injured by alcohol. However, in individuals with cirrhosis, the liver is unable to replace the damaged liver cells. Drinking any alcohol, not just hard liquor, but also beer or wine will speed up the process of liver destruction and may counteract any treatments prescribed by your doctor.

Is it safe to take acetaminophen (Tylenol®)?

It is generally safe to take acetaminophen in the amount specified in the labeling. Acetaminophen is the main ingredient in Tylenol®, but it is also found in many non-prescription products for headaches, the flu, sinus problems, arthritis or general aches and pains. In 1993, an FDA Advisory Committee recommended that all over-the-counter pain relievers contain an alcohol warning. Tylenol and some other pain relievers have included such an alcohol warning on their labeling. But, to date, not all over-the-counter pain relief products have complied with the FDA recommendation. There have been some reports that chronic heavy alcohol users may be at increased risk of liver toxicity from excessive acetaminophen use. Individuals who have been diagnosed with liver conditions will want to consult with their physician for advice on when and how to take pain relievers and should not exceed recommended doses of acetaminophen or any other pain reliever, especially if they are consuming alcohol. Pay particular attention to products labeled "aspirin-free"; because some prescription medications also contain acetaminophen, so be sure to ask your doctor about use of pain relievers.

Some Acetaminophen Containing Medicines:

Tylenol® 325 mg/tablet

Tylenol Extra Strength® 500 mg/tablet

Tylenol Adult Liquid® 500 mg/tablespoon

Tylenol Extended Relief® 650 mg/tablet Aspirin Free Excedrin® 500 mg/tablet

Excedrin Extra-Strength® 250 mg/tablet

Excedrin P.M.® 500 mg/tablet

Midrin® 325 mg/capsule

Actifed Cold & Sinus® 500 mg/tablet

Sinutab Sinus Allergy® 500 mg/tablet

Sudafed Cold & Cough® 500 mg/tablet

What other medications should I avoid?

You may need to avoid iron supplements. Too much iron can damage liver cells or aggravate liver damage caused by some viruses. Most adults do not need to take iron supplements unless there is a history of obvious blood loss or a known deficiency of iron. Unless your doctor prescribes iron supplements for you, do not take any iron supplements

or even multivitamins that contain iron.

What foods should I avoid?

Sewage runoff can infect edible sea organisms (clams, oysters, crustaceans and fish) with both bacteria and viruses. Contamination of seafood may be undetectable by smell or taste. Clams and oysters are especially susceptible to sewage contamination and should never be eaten raw.

Vibrio vulnificus is a bacteria that is found in contaminated oysters and other seafood. In healthy people, it rarely causes serious infection, but in individuals with cirrhosis it can cause death in 48 to 72 hours.

Hepatitis A is a virus that can be found in clams and oysters. Infection with hepatitis A can cause even healthy persons to become very sick. Individuals with cirrhosis are especially vulnerable to a life-threatening infection caused by this virus.

If you have open sores on your skin, you should avoid exposure to sea water during the warm summer months. Harmful organisms can enter the blood stream through these sores and cause serious infection.

Are vaccines important?

Yes. Ask your doctor if you would benefit from one or more of the following vaccines:

Hepatitis A Vaccine:

Used to prevent hepatitis A, which can be severe in individuals with cirrhosis. It consists of a series of two injections given six months apart.

Hepatitis B Vaccine:

Used to prevent hepatitis B, another type of viral hepatitis. It consists of a series of three injections. The second and third injections are given one and six months after the initial injection.

Pneumococcal Vaccine:

Used to prevent a kind of pneumonia caused by a bacteria called *Streptococcus pneumoniae*. It consists of only one injection, and should be repeated in five years.

Flu Shot:

Used to prevent influenza, a cause of severe upper respiratory infection and pneumonia. It is a single injection given yearly, usually in the Fall, just prior to the flu season.

Are there any natural herbs that can heal my liver?

Many causes of cirrhosis do not have any treatment available. For this reason, many individuals resort to the use of "health foods" and "natural herbs or supplements" to improve the liver. There is no scientific proof that any of these products are of benefit to the liver. Most of them are safe, but liver damage caused by herbal products has been reported. There are several herbal remedies that are known to cause liver damage. Be sure to tell your doctor before you begin any herbal products so that he or she may better monitor your condition.

Remember, take care of yourself. Although cirrhosis is a serious condition, you may live many years without problems. Try to eat a well-balanced diet and exercise regularly. The more active you become in taking care of yourself and obtaining regular follow-up with your doctor, the more likely you will be one of the many individuals that do well for many years.

[TO TOP](#)

Alcoholic Liver Disease

Alcoholism is a common problem with an estimated 17 to 20 million Americans suffering from alcoholism. Men are more commonly afflicted than women. Young men with a family

history of alcoholism and difficulties with inter-personal relations are at the greatest risk for alcoholism. Specific biologic markers for the risk to develop alcoholism have not been identified.

Does alcoholism cause liver disease?

Most people who consume alcohol do not suffer clinically significant damage to the liver. However, chronic excessive consumption of alcohol can cause a variety of liver problems including excess fat in the liver (fatty liver), alcoholic hepatitis (inflammation in the liver) and cirrhosis (permanent scarring of the liver).

Alcoholic hepatitis and alcoholic cirrhosis develop in approximately 15-20 percent of chronic alcoholics. This means that roughly one out of five people with heavy alcohol consumption will develop the devastating health problem of liver cirrhosis. These patients may die from liver failure, caused by gastrointestinal hemorrhage, infection, or failure of the kidneys. A liver transplant is only offered to those who abstain from alcohol intake for several months. Why some people who drink alcohol get liver disease and others do not is not fully understood, but there is some research suggesting a possible genetic connection. Some people are genetically more susceptible to the effects of alcohol than others. Unfortunately, there is not yet a laboratory test to identify who is at highest risk for alcoholic related liver disease.

In the United States, cirrhosis is among the 7 leading causes of death. The most common cause of cirrhosis is alcohol abuse. In addition, excess alcohol consumption increases the risk of pancreatitis (inflammation of the pancreas), cardiomyopathy (damage to the heart muscle), trauma (accidents occurring due to drunkenness), and the development of fetal alcohol syndrome (damage to the unborn child from excess alcohol during pregnancy).

How much alcohol must I drink to damage my liver?

The amount of alcohol consumed before liver damage occurs is extremely variable. Some people are exquisitely sensitive to the effects of alcohol, while others are seemingly invulnerable to its harmful effects. In general the greater the amount and the longer the duration of alcohol consumption the more likely that injury to the liver will occur. Women are more susceptible to the damaging effects of alcohol than men.

Daily consumption of one pint of wine, or three 12 ounce beers or 4 ounces of distilled spirits (vodka, whiskey) is about 20-40 grams of alcohol and will result in liver damage over time in most women. A man drinking 80 grams of alcohol daily will, on average, develop cirrhosis of the liver in 10 years. A woman drinking 80 grams daily of alcohol will develop cirrhosis in 5 years.

Why are women more susceptible to alcohol than men?

The answer to this question is not known. When the amount of alcohol consumed by men and women is adjusted for differences in body size, women still appear to be at greater risk of liver damage at lower quantities of alcohol. Women have lower levels of an enzyme known as alcohol dehydrogenase, found in the stomach lining. This enzyme breaks down alcohol before it is absorbed and decreases the concentration of alcohol that reaches the blood stream. This may also explain why some women feel the effects of alcohol at a smaller amount of alcohol when compared to men. The important message is, "liver damage occurs in women with consumption of lesser amounts of alcohol."

What kinds of liver disease are caused by excess alcohol ingestion?

Fatty Liver

This condition can occur with significant intake of alcohol, even in individuals who are not

alcoholics. In fatty liver, large fat droplets accumulate in the liver, leading to enlargement. A blood test can identify early damage to the liver. When alcohol consumption is stopped, the fat in the liver will disappear and the liver should completely heal.

Alcoholic Hepatitis

This is a serious condition where the liver has been severely damaged by the effects of alcohol. The illness is characterized by weakness, fever, loss of appetite, nausea, vomiting and pain over the liver. The liver is often inflamed causing many individual liver cells to die. Unlike fatty liver, alcoholic hepatitis often heals with permanent scarring called fibrosis. The right sided stomach pain is often hard to distinguish from other conditions such as a gallbladder attack. Your doctor may need to order special blood tests and x-rays to diagnose the condition. Alcoholic hepatitis can be life-threatening and require hospitalization. Recovery from alcoholic hepatitis is common, but the fibrosis or scarring of the liver is irreversible.

Alcohol-Induced Cirrhosis

This is the final stage of damage to the liver from alcohol. Cirrhosis is a permanent irreversible form of liver damage. The fibrosis or scarring of the liver seen in cirrhosis leads to obstruction of blood flow through the liver. This prevents the liver from performing its critical functions of purifying the blood and nutrients absorbed from the intestines. The end result is liver failure. Some signs of liver failure include accumulation of fluid in the abdomen (ascites), malnutrition, confusion (encephalopathy) and bleeding from the intestines. Some of these conditions can be managed by diet, medicines and special procedures, but the spontaneous recovery of the liver to normal and return of good health is rare.

Cirrhosis is the seventh leading cause of death in the United States. Although alcohol is the cause of over half of the cases of cirrhosis in the United States, not all cases of cirrhosis are due to alcoholism. Some are caused by genetic disorders, such as hemochromatosis or viral infections, such as hepatitis.

How can you diagnose whether a person has a fatty liver, alcoholic hepatitis, or cirrhosis?

Blood tests and scans are usually very helpful in the evaluation of the liver, but a biopsy of the liver is often required to make the diagnosis of cirrhosis and determine the cause. A liver biopsy is performed in the hospital or in a same day surgery clinic. Often the liver biopsy is performed with mild local anesthesia such as lidocaine or with mild sedatives given through the vein. The discomfort from the liver biopsy is usually mild and lasts only for a short time. Most patients can return to work the following day with only a restriction on heavy lifting and exercise.

Are there complications associated with alcoholic liver disease?

Yes, roughly a third of patients with alcoholic liver disease suffer from a liver infection caused by the hepatitis C virus and nearly half will have gallstones. Those with cirrhosis are more likely to suffer from diabetes, kidney problems, ulcers, and severe bacterial infections.

Will alcoholic liver disease affect me when taking medicine?

Since one of the functions of the liver is to process drugs and other chemicals in your body, if you have liver disease you may process medications differently from other people. Always consult with your doctor about the dosage of both over-the-counter and prescription medicines. Similarly, alcohol alone, even without liver disease known to be present, may affect the processing of certain medications. For example, even moderate amounts of alcohol may cause adverse effects with some pain medications. If you use alcohol, check

the labeling of over-the-counter medications to alert yourself to any limitations on their usage. You should check with your physician about precautions in taking your prescription medications if you have been drinking any alcohol. You should never use an alcoholic beverage to take medication.

[How is alcohol-related liver disease treated?](#)

Of all treatments for alcoholic liver disease, the most important is to stop drinking completely. Sometimes the liver can recover from the injury of alcohol enough to allow a normal life, unfortunately the scarring of the liver is permanent and the liver remains vulnerable to any alcohol or infections. When alcoholic cirrhosis advances to an end-stage complicated by life-threatening intestinal bleeding, confusion, ascites, failure of the kidneys, and infection, the only treatment is liver transplantation. For liver transplantation to be successful, a patient must be very compliant with medicines and follow instructions reliably. Only persons completing a successful alcohol detoxification and rehabilitation program are considered as candidates for liver transplantation.

[TO TOP](#)

[Viral Liver Disease](#)

[The Liver and Its Functions](#)

The liver, the body's largest organ weighing about three pounds, is located on the right side of the abdomen, protected by the lower rib cage. It is responsible for over 5,000 life-sustaining functions, produces most of the building blocks used by the rest of the body and removes harmful chemicals. The liver produces bile that is transported to the small intestine to aid in the digestive process. The liver also produces proteins, hormones and enzymes that keep the body functioning normally, as well as materials that help in normal clotting of the blood, and to cleanse the body of substances that would otherwise be poisonous. It has a role in the processing of cholesterol, maintenance of blood sugars levels, and the processing of drugs.

When the liver becomes diseased, it may have many serious consequences. Viral infections are the most common diseases to affect the liver. When a virus damages a liver cell, the cell can no longer function. With fewer healthy cells to carry on their important work, many body functions can be affected.

[What is Hepatitis?](#)

Hepatitis means inflammation of the liver. There are many reasons for the liver to be inflamed, and not all of them are due to viruses. Certain toxic drugs and immune disorders may cause liver inflammation. The most common cause for liver inflammation is viral hepatitis. When liver inflammation is present for more than 6 months, the condition is referred to as chronic hepatitis.

In the United States: There will be 500,000 new cases of viral hepatitis this year. More than 4.5 million Americans have chronic viral hepatitis. That is nearly 2 percent of the United States population. Chronic viral hepatitis, well tolerated in many, may result in premature death from cirrhosis or liver cell cancer and is a leading indication for liver transplantation.

[What are the symptoms?](#)

Symptoms produced by viral hepatitis are varied and differ depending upon whether the hepatitis is acute or chronic. Many cases of acute hepatitis are so mild that there may be no symptoms or only non-specific "flu-like" symptoms for a few days or weeks.

[Symptoms of Viral Hepatitis](#)

Acute hepatitis refers to inflammation of the liver and symptoms which are more short-term

and sporadic. Acute hepatitis is less likely than chronic hepatitis to result in permanent damage to liver function.

Acute Hepatitis

Severe Fatigue
Yellow Skin
Dark Urine
Loss of Memory
GI Upset

Chronic Hepatitis

Yellow Eyes
Joint Aches
Skin Rashes
Low grade fevers

Note: many patients with either acute or chronic hepatitis have NO SYMPTOMS, and symptoms are not a reliable means of knowing if progressive liver damage is occurring.

There are currently seven viruses known which cause liver inflammation. They are called hepatitis A, B, C, D, E, F and G. Because of this terminology, they are commonly referred to as an "alphabet soup" of names.

What difference does it make which virus I have?

There are several important differences in the viruses. For example, the most common viral hepatitis is hepatitis A. This virus produces acute hepatitis, but never chronic disease, so the individual infected may get sick for a few days or weeks, but once improvement occurs, the infection is over, and progressive destruction of the liver does not take place. It is rare for hepatitis A to become so severe that death (or need for urgent liver transplantation) occurs.

Hepatitis B gets better spontaneously in over 95 percent of cases. Only a few individuals with this infection are likely to develop chronic disease. An important exception to this rule applies to children. The younger the child at the time of infection, the more likely the infection will become chronic. For example, when the infection is acquired in infancy, more than 90 percent of cases become chronic. The majority of hepatitis B infections in this country occur in late-adolescents and adults. However, world-wide, infants are most likely to get hepatitis B infections.

Hepatitis C occurs primarily in late adolescents and in adults. Unlike hepatitis B, this infection ordinarily escapes the body's immune system and so in most cases does not resolve itself. In fact, up to 85 percent of people who get infected with hepatitis C will retain evidence of infection indefinitely.

Hepatitis D is a strange virus. It occurs only in conjunction with hepatitis B where it seems to function as a parasite. It may turn a smoldering but well-tolerated B infection into a more aggressive and destructive disease. The other three hepatitis viruses -- E, F, and G are not common among individuals residing in the United States.

How is hepatitis spread?

There are important differences in the ways viruses which cause hepatitis are spread. These differences hold the key to reducing the spread of these infections within families or communities.

Hepatitis A is frequently a childhood illness. It is passed from person-to-person. The virus is shed in the stool, and so poor hygiene after using the toilet can easily spread the virus from individual to individual. The virus also finds its way into food. It is easy to understand how nurseries and pre-schools are particularly vulnerable to the spread of hepatitis A.

Hepatitis B is spread via many routes, but hardly ever by ingestion of contaminated food. Instead, shared blood or body secretions are the primary means of infection. Nearly all body secretions may contain hepatitis B virus, so that spread from one person to another may be seen in IV drug users who share needles, and also in those who receive tattoos or body piercing using improperly sterilized equipment.

Sexual transmission is another common means of spreading of hepatitis B. Infected mothers are particularly likely to spread hepatitis B to their newborns. All pregnant women are tested for hepatitis B which has helped to eliminate most mother-to-offspring transmission of hepatitis B.

The spread of Hepatitis C is also via contaminated body fluids, so that shared needles, tattooing, and body piercing may result in the spread of Hepatitis C. There is some evidence indicating that Hepatitis C may occasionally be spread by sexual contact, but this is not a common mode of transmission. Spread of Hepatitis C from mother to offspring is another somewhat uncertain area. It does not occur to nearly the same extent as spread of Hepatitis B, yet may occur in about 5 percent of infected mothers.

What can be done to prevent Hepatitis?

The means to prevent most cases of hepatitis are at hand. For some viruses it is even possible to immunize against infection.

What is available for prevention of hepatitis A, B, and C?

Spread of Hepatitis A can be prevented through good personal hygiene, thorough education of all food handlers, good sanitary care within nurseries and pre-schools and immunization. An effective vaccine was introduced in 1995. It is recommended mainly for travelers to areas where Hepatitis A is a problem, and for military recruits. In time, it will likely become a standard childhood immunization.

In the case of exposure to a person with Hepatitis A the first rule is: don't panic. This advice is particularly hard for parents of an exposed child. The chances of spread from child-to-child within schools is remote except in day care centers for the very young. In those cases, immunization if done promptly may reduce the likelihood of disease. For families with an active infection, again the likelihood of spread is low. In fact, once the individual develops obvious disease, the virus has usually disappeared from the stool, and so the risk of further exposure and transmission through that route is curtailed. Nevertheless, it is a good practice to use separate eating utensils for a few days after the onset of symptoms. Immunization of household contacts may also be considered where there has been direct contact with the infected person. Immunization is not necessary for those who work in the same office or attend school where an individual develops Hepatitis A.

Hepatitis B is a completely preventable disease. Good prenatal care, immunization of all school age children against Hepatitis B, and individuals with multiple sexual partners, (or a partner identified as having Hepatitis B) are all important strategies to prevent hepatitis B.

Hepatitis C prevention remains more difficult. There is no vaccine and experts predict it will be many years before one is developed. Risk reduction remains the cornerstone of prevention. Do not share IV needles, get tattoos or body piercing in establishments where standards of cleanliness are unknown, or have unprotected sex with multiple partners.

How is Hepatitis treated?

Treatment of viral hepatitis depends upon the particular culprit virus, and upon whether the infection is acute or chronic. For acute infections of hepatitis A, B, and C, general measures to make the individual more comfortable are all that is necessary. Hepatitis A will virtually

"always" get better. Follow-up is needed in cases of hepatitis B and C via blood tests, because symptoms are not a reliable sign regarding the presence of chronic infection.

For chronic viral Hepatitis B and C no certain cure exists, but for a minority of patients antiviral therapy will arrest the infection. The only drugs approved by the Food & Drug Administration for use against viral hepatitis are interferons which must be given by injection (like insulin for diabetics) for many months and may produce side effects.

What are the long term consequences of Hepatitis?

Many patients with chronic Hepatitis B or C who receive no treatment (or in whom it proves unhelpful) may nonetheless have a good chance to recover reasonably well. In fact, in the U.S. where infection is usually acquired after childhood, the majority of infected individuals may have either no long term bad consequences, or only mild or moderately troublesome symptoms.

In cases of chronic hepatitis where infection has been present for 20 years or more, signs and symptoms of a badly scarred liver may emerge in 15-30 percent of these patients. The disease may produce such severe problems that death may ensue or may only be avoided by liver transplantation.

While liver cancer most often spreads from some other site in the body, sometimes liver cancer will originate from liver cells rather than from another organ. These tumors are called hepatomas. Approximately 70 percent of hepatomas in the United States arise in the setting of chronic hepatitis B or C.

It is clear that viral hepatitis is a substantial health threat in the U.S. Through education, much more can be done to reduce the spread of these diseases. Treatment for those chronically infected is available and should be considered on an individual basis.

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