

# What is Hepatitis?

Hepatitis is inflammation and swelling of the liver that can be caused by certain drugs, alcohol, toxins, autoimmune disorders or viral infections. Viral hepatitis will be the topic of further discussion.

Viral hepatitis is a contagious disease that infects over 500,000 persons in the United States each year. A virus is a type of germ, different than bacteria, that causes sickness. (For example, the flu is caused by a virus). Viruses can be passed from person to person.

You need a healthy liver. The liver is a vital organ that removes drugs and poisons from your blood, stores energy for when you need it, makes vital proteins, helps digest fats, fights infection and stops bleeding.

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What are the different types of viral Hepatitis?

There are five different types of viral hepatitis: hepatitis A, hepatitis B, hepatitis C, hepatitis D and hepatitis E. Only the first three types are common in the United States.

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## Hepatitis A

How common is Hepatitis A?

Hepatitis A accounts for about 50% of known viral hepatitis cases in the United States each year. In the United States it is estimated that about 80% of persons over 60 years of age have previously been exposed to hepatitis A at some point in their lives. Most people are not aware they have had hepatitis A.

How is Hepatitis A spread?

Hepatitis A is passed in the stool from a bowel movement. You could get hepatitis A by:

- Touching an infected person's stool (for example, changing an infected baby's diaper), and then eating or drinking with your hands.
- Eating food made by someone who touched infected stool.
- Drinking water or ice cubes made dirty by infected stool (a problem in developing countries).
- Having anal sex with an infected person.
- Kissing a person infected with hepatitis A (less likely).

Who can get Hepatitis A?

Although anybody can get hepatitis A people who are most likely to include:

- People living with someone who has hepatitis A.
- Children who go to day care.

- People working in a day care center.
- Men having anal sex with other men.
- People traveling to other countries.

What are the symptoms?

Hepatitis A can make you feel like you have the flu. Symptoms, if present, typically occur 2 to 4 weeks after infection. You might:

- Feel extremely tired.
- Feel sick to your stomach.
- Have a stomach pain.
- Have little or no desire to eat.
- Have a fever.
- Have diarrhea
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Some people have

- Yellowish eyes and skin (jaundice).
- Swollen abdomen (ascites).
- light-colored stools.
- dark yellow urine.

Some people don't have any symptoms.

If you have symptoms, or think you might have symptoms, go to a doctor. The doctor will test your blood for hepatitis A.

How is Hepatitis A treated?

There is no specific treatment for hepatitis A. Most people get well after a few weeks.

Several days or weeks of bed rest may be needed

Drinking alcohol should be avoided.

You must wash your hands thoroughly after using the toilet.

You must not handle or serve food to others.

The doctor may give medications to help with symptoms such as pain or vomiting.

Persons with hepatitis may need to eat smaller more frequent meals but do not need to restrict any particular type of food. Modest exercise does not interfere with recovery.

Does Hepatitis A cause permanent liver damage?

No! Hepatitis A, unlike hepatitis B and hepatitis C, does not cause chronic or recurrent infection. Once a person has recovered from hepatitis A they cannot get it again.

How can people protect themselves from hepatitis A?

Immune globulin

Persons having close contact with someone having hepatitis A can be treated with a type of medication, called immune globulin (IG), to prevent hepatitis from developing. IG is not effective once a person has

contacted hepatitis A. It works almost immediately to prevent infection and may be protective for several months. IG is also helpful if you will be traveling to countries where hepatitis A is common and have not completed a vaccination series.

### Vaccination

A vaccine is a drug that is given when a person is healthy to prevent illness. Vaccines teach the body to fight off and attack certain viruses, like the hepatitis A virus. Hepatitis A vaccine can be given to children over 2 and adults. Children 2 to 18 years will need 3 shots given over a year. Adults get 2 shots over 6 to 12 months. All shots are needed to be protected.

### Hygiene/ Cleanliness

Always wash hands after using the toilet and before fixing food or eating.  
Wear gloves if you have to touch other people's stool and wash hands afterwards.  
Drink bottled water, don't use ice cubes or wash fruits and vegetables in tap water when in certain countries.

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## Hepatitis B

How common is Hepatitis B?

Hepatitis B accounts for about 30% of known viral hepatitis cases in the United States each year.

How is Hepatitis B spread?

Hepatitis B is spread by contact with an infected person's blood, semen, or other body fluids.

An infected woman can give hepatitis B to her baby at birth or through her breast milk.

You can get hepatitis B by:

- Having sex with an infected person without using a condom
- Sharing drug needles.
- Having a tattoo or body piercing done with infected tools used on someone else.
- Sharing a tooth brush or razor with an infected person (less likely).
- Getting pricked with a needle that has infected blood on it (health care workers can get hepatitis B this way).

You can NOT get hepatitis B by:

- Shaking hands with an infected person
- Hugging an infected person
- Sitting next to an infected person

What are the symptoms?

Hepatitis B can make you feel like you have the flu. Symptoms, if present, typically occur 3 months after infection. You might:

- Feel extremely tired.
- Feel sick to your stomach.
- Have a stomach pain.
- Have little or no desire to eat.
- Have a fever.
- Have diarrhea

Some people (about half) have

- Yellowish eyes and skin (jaundice).
- Swollen abdomen (ascites).
- light-colored stools.
- dark yellow urine.

Some people don't have any symptoms.

If you have symptoms, or think you might have symptoms, go to a doctor. The doctor will test your blood for hepatitis B.

How is Hepatitis B treated?

There is no specific treatment for acute hepatitis B.

For people having symptoms most get well after 4 to 6 weeks.

Several days or weeks of bed rest may be needed.

Drinking alcohol should be avoided.

The doctor may give medications to help with symptoms such as pain or vomiting.

The doctor will recheck blood tests at 3 months to see if the liver is healthy and if the body is clearing hepatitis B.

Persons with hepatitis may need to eat smaller more frequent meals but do not need to restrict any particular type of food. Modest exercise does not interfere with recovery.

Can Hepatitis B cause permanent liver damage?

Yes! Hepatitis B, unlike hepatitis A, causes chronic or recurrent infection in 1 to 2 percent of infected persons. If hepatitis B is not cleared from your body by 6 months you could have a chronic infection. Chronic infection can be very mild in some people but may cause severe destruction of the liver (cirrhosis) or liver cancer in others.

For this reason your doctor will recheck blood tests at frequent intervals to see if your body has cleared itself of hepatitis B. If you have chronic hepatitis B your doctor may also want to do a liver biopsy, in which a tiny piece of your liver is removed through a needle, to check for signs of liver damage.

Is there treatment for chronic Hepatitis B?

Treatment for chronic hepatitis B may involve:

A drug called interferon given over 4 months in a series of shots.

Combination therapy with interferon and ribavirin (taken by mouth).

Surgery. If the liver no longer works a liver transplant, in which the old liver is replaced by a new liver, may be need.

Both medications can have significant side effects. Persons receiving these medications must be thoroughly informed of side effects by their doctor.

## Hepatitis B Vaccine

Following the primary course of 3 vaccinations, a blood test may be taken after an interval of 1–4 months to establish if there has been an adequate response, which is defined as an anti-hepatitis B surface antigen (anti-Hbs) antibody level above 100 mIU/ml. Such a full response occurs in about 85-90% of individuals.

People who fail to respond (anti-Hbs antibody level below 10 mIU/ml) should be tested to exclude current or past Hepatitis B infection, and given a repeat course of 3 vaccinations, followed by further retesting 1–4 months after the second course. Those who still do not respond to a second course of vaccination may respond to a high dose of vaccine or to intradermal administration. Those who still fail to respond will require hepatitis B immunoglobulin (HBIG) if later exposed to the hepatitis B virus.

Poor responses are mostly associated with being over the age of 40 years, obesity and smoking, and also in alcoholics, especially if with advanced liver disease.[15] Patients who are immunosuppressed or on renal dialysis may respond less well and require larger or more frequent doses of vaccine. At least one study suggests that hepatitis B vaccination is less effective in patients with HIV.

It is now believed that the hepatitis B vaccine provides indefinite protection. However, it was previously believed and suggested that the vaccination would only provide effective cover of between five and seven years, but subsequently it has been appreciated that long-term immunity derives from immunological memory which outlasts the loss of antibody levels and hence subsequent testing and administration of booster doses is not required in successfully vaccinated immunocompetent individuals. Hence with the passage of time and longer experience, protection has been shown for at least 25 years in those who showed an adequate initial response to the primary course of vaccinations, and UK guidelines now suggest that for initial responders who require ongoing protection, such as for healthcare workers, only a single booster is advocated at 5 years.

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## Hepatitis C

How common is Hepatitis C?

Hepatitis C accounts for about 20% of known viral hepatitis cases in the United States each year. It is responsible for 60 to 70 percent of chronic hepatitis, and 30 percent of cirrhosis, end stage liver disease and liver cancer. Hepatitis C causes an estimated 8,000 to 10,000 deaths a year in the United States. There is no vaccination for Hepatitis C.

How is Hepatitis C spread?

Hepatitis C is spread by contact with an infected person's blood.

Unlike hepatitis B, the risk of infection for infants born to mothers having hepatitis C is only 5 percent. Disease in new born infants is usually very mild. Breast feeding has not been linked to hepatitis C.

You can get hepatitis C by:

- Having sex with an infected person without using a condom. This is very rare.
- Sharing drug needles.
- Having a tattoo or body piercing done with infected tools used on someone else.
- Getting pricked with a needle that has infected blood on it (health care workers can get hepatitis C this way).
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Before 1992, doctors could not check blood for hepatitis C, and some people received infected blood. If you had a blood transfusion or organ transplant before 1992, you might have hepatitis C. If not previously done, ask your doctor to check you for hepatitis C.

You can NOT get hepatitis C by:

- Shaking hands with an infected person.
- Hugging an infected person.
- Kissing an infected person.
- Sitting next to an infected person.

What are the symptoms?

Many people with hepatitis C don't have symptoms. Some people with hepatitis C feel like they have the flu. Symptoms, if present, typically occur 2 months after infection. You might:

- Feel extremely tired.
- Feel sick to your stomach.
- Have a stomach pain.
- Have little or no desire to eat.
- Have a fever.
- Have diarrhea

Some people (about 25 percent) have

- Yellowish eyes and skin (jaundice).
- Swollen abdomen (ascites).
- light-colored stools.
- Dark yellow urine.

If you have symptoms, or think you might have symptoms, go to a doctor. The doctor will test your blood for hepatitis C.

How is Acute Hepatitis C treated?

There is no specific treatment for acute hepatitis C.

For people having symptoms most get well after 4 to 6 weeks.

Several days or weeks of bed rest may be needed.

Drinking alcohol should be avoided.

The doctor may give medications to help with symptoms such as pain or vomiting.

The doctor will recheck blood tests at 3 months to see if the liver is healthy and if the body is clearing hepatitis C.

Persons with hepatitis may need to eat smaller more frequent meals but do not need to restrict any particular type of food. Modest exercise does not interfere with recovery.

Can Hepatitis C cause permanent liver damage?

Yes! Hepatitis C causes chronic infection in over 50% percent of infected persons.

If hepatitis C is not cleared from your body by 6 months you could have a chronic infection.

Chronic infection can be very mild in some people but may cause severe destruction of the liver (cirrhosis) or liver cancer in others.

About 20% of persons with chronic hepatitis C develop cirrhosis within 10 to 20 years of infection.

Liver failure due to hepatitis C is one of the most common causes of liver transplant in the United States.

Liver cancer often occurs in those infected for 20 to 40 years.

Hepatitis C may be the most common cause of liver cancer in the developed world!

For this reason your doctor will recheck blood tests at frequent intervals to see if your body has cleared itself of hepatitis C. If you have chronic hepatitis C your doctor may also want to do a liver biopsy, in which a tiny piece of your liver is removed through a needle, to check for signs of liver damage.

Is there treatment for chronic Hepatitis C?

Treatment for chronic hepatitis C may involve:

A drug called interferon given over 4 months in a series of shots.

Combination therapy with interferon and ribavirin (taken by mouth).

Surgery. If the liver no longer works a liver transplant, in which the old liver is replaced by a new liver, may be need.

Combination therapy is more effective, expensive and has more side effects than single therapy. In most cases combination therapy is preferable to single therapy.

Drug therapy doesn't work for everyone. Medications have not been shown to improve survival or outcome if liver damage from cirrhosis is already present.

Both medications can have significant side effects. Persons receiving these medications must be thoroughly informed of side effects by their doctor.