Hepatitis A and B?

What is Hepatitis A?

Hepatitis A is a contagious liver disease that can range in severity from a mild illness lasting a few weeks to (rarely) a severe illness causing liver failure. Hepatitis A is a result of infection with the hepatitis A virus. The virus is found in the stool of people with hepatitis A and is spread when someone's stool accidentally contaminates food or water. This can happen when an infected person does not adequately wash his or her hands after using the bathroom then touches other things such as food. When other people eat that food, they can get infected with hepatitis A. Infection can also occur during anal sex.

Foods themselves can be contaminated with hepatitis A virus, such as raw oysters harvested from sewage-contaminated water. When people eat food contaminated with hepatitis A virus, they can get infected with the virus.

The risk of severe illness from hepatitis A is greater in those who already have liver disease such as chronic hepatitis B or C.

Hepatitis A can cause:
- “Flu-like” illness
- Jaundice (yellow skin or eyes, dark urine)
- Severe stomach pains and diarrhea
- Liver failure or death (rare)

Hepatitis A will usually make people feel sick:
- Adults with hepatitis A are often too ill to work for up to a month
- People with hepatitis A sometimes have to be hospitalized (up to 1 person in 5)
- It is extremely rare for people to die as a result of hepatitis A

However, some patients with hepatitis A may not develop any symptoms but can still spread infection to other people through virus shed in their stool. Even after symptoms go away, a patient may have hepatitis A in his or her stool for weeks after the initial infection.

Hepatitis A Vaccination

Hepatitis A vaccination can prevent Hepatitis A.
Should I get the hepatitis A vaccination?

You may need the vaccination against Hepatitis A if you have not previously been vaccinated against Hepatitis A AND you have any of the following reasons for receiving the vaccination:

- Chronic hepatitis C
- Chronic hepatitis B
- Alcoholic hepatitis
- Cirrhosis or liver fibrosis
- Other chronic liver disease
- Complications of liver disease (such as esophageal varices)
- Clotting factor disorder
- HIV infection
- Use of injection drugs
- Use of non-injection street or illicit drugs
- Are a man who has sex with other men
- Are awaiting or have received a liver transplant
- Work with primates that are infected with hepatitis A or work in a research laboratory where the virus is present
- Travel, work, or live in areas or communities where there are high or moderate rates of hepatitis A infection (these tend to be developing countries such as certain parts of Africa, Asia, and Central and South America)
- Are planning to adopt, care for, or live in a household with a child from a country where hepatitis A is common

Health care personnel should discuss the hepatitis A vaccination with patients but especially patients in these groups who are at increased risk.

You should not get the hepatitis A vaccination or you should wait, if you:

- Had a serious allergic reaction to a previous hepatitis A vaccination
- Are moderately or severely ill, with or without fever, at the time the vaccination is scheduled (if you are just mildly ill, ask your doctor or nurse if it is OK for you to receive the vaccine)

Speak with your VA health care provider to see if you should be vaccinated against hepatitis A.

Should pregnant or breast-feeding women receive the hepatitis A vaccination?

The safety of hepatitis A vaccination during pregnancy has not been determined; however, because hepatitis A vaccine is produced from inactivated virus, the risk to the developing fetus is probably low.

The risk associated with hepatitis A vaccine should be discussed with your health care provider to determine if vaccination is right for you.
**Do I need to be tested for hepatitis A before getting the vaccination?**

Your provider may decide to test your blood for antibodies to hepatitis A but this is not required. If you have antibodies to hepatitis A already, it means either that you were infected with hepatitis A in the past or that you were previously vaccinated against hepatitis A. Either way, you don’t need to get the hepatitis A vaccination if you already have antibodies to hepatitis A.

**How is the hepatitis A vaccine given?**

Vaccination for hepatitis A requires two shots, 6 months apart. The vaccine is given by an injection into the muscle of the upper arm. If for some reason the second injection doesn’t take place at 6 months, you can receive the second dose at a later time.

If you need hepatitis B vaccination in addition to hepatitis A, you can do these individually or as a combined vaccine that covers both infections. The combination vaccine is given as three injections over a 6-month period — an initial dose, followed by a second dose 1 month later, and then a third dose 5 months after the second.

**How does the hepatitis A vaccine work?**

The hepatitis A vaccine is a dose of inactive virus that stimulates your natural immune system. After the hepatitis A vaccine is given, your body makes antibodies that will protect you against the hepatitis A virus.

**If I received the hepatitis A vaccine a long time ago, do I need a booster shot?**

Completing the 2 shot vaccine series for hepatitis A is expected to provide lifelong immunity, so there is no recommendation for a booster even if many years later.

**What are the side effects of the hepatitis A vaccine?**

The hepatitis A vaccine is made from inactive virus and is quite safe. In general, there are very few side effects. The most common side effect is soreness at or around the injection site. Other potential side effects include mild headache, loss of appetite among children, and feeling tired. These side effects usually last 1 or 2 days. However, like any medicine, the vaccine could cause serious problems, such as an allergic reaction, which may appear within a few minutes or hours after getting the shot. This occurs very rarely, but if you believe you are having a reaction to the vaccine, you should call your doctor or nurse right away. Some warning signs of a serious allergic reaction include the following:

- High fever
- Behavior changes
- Difficulty breathing
- Hoarse voice or wheezing
- Hives
- Pale skin
- Weakness or dizziness
- A fast heartbeat
You will NOT get hepatitis A from the vaccine, and receiving the vaccine is much safer than getting the disease itself.

What is hepatitis B?

Hepatitis B is a contagious liver disease that ranges in severity from a mild illness lasting a few weeks to a serious, lifelong illness. It results from infection with the hepatitis B virus. Hepatitis B can be either “acute” or “chronic.”

Acute hepatitis B virus infection is a short-term illness that occurs within the first 6 months after someone is exposed to HBV. Acute infection can — but usually does not — lead to chronic infection.

Chronic hepatitis B virus infection is a long-term illness that occurs when the virus remains in a person’s body. The younger a person is when infected with hepatitis B virus, the greater his or her chance of developing chronic hepatitis B.

Hepatitis B virus is contained in blood and body fluids. It is not contained in food or water. It is passed from person to person when blood, semen, or other body fluid infected with the virus enters the body of a person who is not infected. People can become infected with the virus during activities such as:

- Birth (spread from an infected mother to her baby during birth)
- Sex with an infected partner
- Sharing needles, syringes, or other drug-injection equipment
- Sharing items such as razors or toothbrushes with an infected person
- Direct contact with the blood or open sores of an infected person
- Exposure to blood by sticks from needles or other sharp instruments

People can have hepatitis B infection and not know it. People can pass the virus to others and not know it.

Although anyone can get hepatitis B, some people are at greater risk, such as those who:

- Have sex with an infected person
- Have multiple sex partners
- Have a sexually transmitted disease
- Are men who have sexual contact with other men
- Inject drugs or share needles, syringes, or other drug equipment
- Live with a person who has chronic hepatitis B
- Are infants born to infected mothers
- Are exposed to blood on the job
- Are hemodialysis patients
- Travel to countries with moderate to high rates of hepatitis B

Hepatitis B Vaccination

Should I get the hepatitis B vaccination?
You may need the vaccination against hepatitis B if you have not previously been vaccinated against hepatitis B AND you have any of the following reasons for receiving the vaccination:

- Chronic hepatitis C
- Alcoholic hepatitis
- Liver cirrhosis or liver fibrosis
- Other chronic liver disease
- Awaiting or received liver transplant
- Complications of liver disease (such as esophageal varices)
- HIV infection
- Use of injection drugs currently or in the past
- Have a sex partner who has hepatitis B
- Have had more than one sex partner in the past 6 months
- Men who have sex with men
- Share a household with someone who has chronic hepatitis B
- Travel to countries with high or intermediate rates of hepatitis B infection (there are high rates of hepatitis B in China and other part of Asia, in the Amazon, and in the southern parts of eastern and central Europe; there are intermediate rates of hepatitis B in the Middle East and Indian subcontinent)
- Reside or work in a prison or correctional facility
- People with end-stage renal disease, including patients receiving dialysis
- People who are seeking evaluation or treatment for a sexually transmitted disease (STD)
- Work in a high-risk profession with reasonable anticipation of risk of exposure to blood or body fluids, such as:
  - Health care facilities
  - Dialysis centers
  - Emergency response or firefighting
  - Law enforcement
  - Military
- Clients and staff in the following settings:
  - Institutions and non-residential daycare facilities for persons with developmental disabilities
  - STD treatment facilities
  - HIV testing and treatment facilities
  - Facilities providing drug-abuse treatment and prevention
  - Health care settings that target services to injection-drug users or men who have sex with men
  - Facilities for chronic hemodialysis patients
Persons aged 19-59 who have diabetes mellitus SHOULD receive the vaccination. Persons aged 60 and older who have diabetes mellitus MAY receive the vaccination, and should discuss it with their health care providers. Certain ethnic groups have higher rates of hepatitis B virus infection. You may need the vaccination if you are African American, Latino, Native American, Haitian, Alaskan Native, Vietnamese, Chinese, Korean, or Filipino.

Patients with the following conditions should discuss hepatitis B vaccination with their doctor: pregnancy, immunosuppression due to medications or conditions such as cancer, diabetes, heart disease, chronic lung disease, asplenia, chronic alcoholism.

If you have already been vaccinated, or if you are not sure, talk with your health care provider. Your health care provider may check to see if you have antibodies against hepatitis B. This can be done through a specific blood test.

Should pregnant or breast-feeding women receive the hepatitis B vaccination?

Pregnancy is not a contraindication to vaccination. Some data suggest that developing fetuses are not at risk of adverse events when hepatitis B vaccine is administered to pregnant women.

Do I need to be tested for hepatitis B before getting the vaccination?

Your provider may decide to test your blood for antibodies to hepatitis B, but this is not required. If you have antibodies to hepatitis B, it means that you were infected with hepatitis B in the past, or you were previously vaccinated for hepatitis B. Either way, you don’t need to get the hepatitis B vaccination if you already have antibodies to hepatitis B.

How is the hepatitis B vaccine given?

The hepatitis B vaccine is a “recombinant vaccine,” which means that it is a fragment of the hepatitis B virus that has been produced in a laboratory. The vaccination for hepatitis B is given as 3 injections over a 6-month period — an initial dose, followed by a second dose 1 month later, and a third dose 5 months after the second.

If you need hepatitis A vaccination in addition to hepatitis B, you can do these individually or as a combined vaccine that covers both. The combination vaccine is given as 3 injections over a 6-month period — an initial dose, followed by a second dose 1 month later, and a third dose 5 months after the second.

If you are not able to get the shots on time, it is not necessary to restart the series, but you should continue from the last dose given.

Babies born to mothers who have chronic hepatitis B should get the first shot within 12 hours after birth, followed by a second shot 1 month later, and the third shot 5 months after the second. Babies born to mothers who are not infected with the hepatitis B virus should get the first shot within 1 to 2 months after birth, the second shot a month later, and the third shot 5 months after the second.

You will NOT get hepatitis B from the vaccine.

You will be protected for about 13 years. If it has been many years since you received your hepatitis B vaccination, or if you do not know when you were vaccinated, ask your doctor to check to see if you have antibodies against hepatitis B.
What should I do if I am exposed to the hepatitis B virus?

If you know you were recently exposed to the hepatitis B virus, you may get protection from an injection of hepatitis B immunoglobulin (HBIG), which is different from the hepatitis B vaccine.

HBIG is given only when it is suspected or known that someone has been infected with hepatitis B, and it is given within 24 hours after the exposure. Unlike the vaccine, which is not given after exposure, HBIG is given before a potential exposure. HBIG will protect you for 3 to 6 months, but it is strongly recommended that you also begin the 3-shot hepatitis B vaccination series within 7 days of your exposure.

What are the side effects of the hepatitis B vaccine?

There are very few side effects caused by the vaccine, but you may experience soreness at the injection site. You will NOT get hepatitis B from the vaccine. Pregnant women have received the hepatitis B vaccine with no risk to their babies.

Vaccines Available for Hepatitis A and B

Hepatitis A: There are 2 vaccines for hepatitis A on the market.

Hepatitis B: There are 2 vaccines for hepatitis B on the market.

Hepatitis A and B: There is 1 combination vaccine on the market for hepatitis A and B together.

Vaccination Schedule

<table>
<thead>
<tr>
<th></th>
<th>Month 0</th>
<th>Month 1</th>
<th>Month 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis A</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Hepatitis A and B combination</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>
**Who can I contact for more information?**

Call your local VA medical center and visit the Veterans Affairs Hepatitis website at:
http://www.hepatitis.va.gov

More information is available from the Centers for Disease Control and Prevention (CDC) website:
http://www.cdc.gov/vaccines/vpd-vac/hepa/default.htm
http://www.cdc.gov/vaccines/vpd-vac/hepb/default.htm#vacc

*This material is not copyrighted and may be reproduced.*

*Clinical Public Health Group (13B) Veterans Health Administration*

*Department of Veterans Affairs, 810 Vermont Avenue, NW Washington, DC 20420.*

*IB 10-650*  

*February 2016.*