Hepatitis B Virus and Hepatitis B Antiviral Medications

What is Hepatitis B?1

Hepatitis B is an infection of the liver that is caused by the Hepatitis B virus (HBV). Most Hepatitis B infections are acute (short-term), and do not cause lasting health problems. However, in 5% of adult cases, Hepatitis B becomes a chronic (long-lasting) condition.

How is Hepatitis B spread?1,2

It is spread by contact with blood or bodily fluids from an infected person. You may become infected with Hepatitis B virus if you:

- Share drug needles.
- Have unprotected sex with a HBV-infected individual.
- Have multiple sex partners.
- Live with and/or share razors or toothbrushes with a HBV-infected individual.
- Work in the health care or public safety industries and exposed to blood of bodily fluids from an infected person.
- Are born to an HBV-infected mother.
- Have blood transfusions or use blood products.
- Have lived in or travel to areas where Hepatitis B is common, such as Central and Southeast Asia, Africa, and Eastern Europe.

What are the symptoms of Hepatitis B?1,2

About 30% of people with HBV will not have any symptoms. Symptoms may not develop until 6 months after being infected. If you do, the common symptoms include:

- Tiredness
- Nausea or vomiting
- Loss of appetite
- Stomach pain or swelling
- Yellow discoloration of the skin or eyes (called jaundice)
- Pale, bloody, or very dark stools
- Very dark urine
- Joint pain
What medications are available for Hepatitis B?1

Acute cases of Hepatitis B usually go away without treatment. For chronic Hepatitis B, some people need antiviral medications to help fight the virus and prevent further damage to their liver. Some Hepatitis B medications are taken orally (by mouth) and some are injected.

The injectable medication treatments include:
- Intron A (interferon alfa-2b)
- Pegasys (Peginterferon alfa-2a)

Oral medications available to treat chronic Hepatitis B infection include:
- Baraclude® (entecavir)
- Epivir HBV® (lamivudine)
- Hepsera® (adefovir)
- Tyzeka® (telbivudine)
- Viread® (tenofovir)

How should I take the oral medications?3-7
- Baraclude should be taken on an empty stomach. It is taken at least 2 hours after a meal or 2 hours before the next meal.
- Epivir HBV, Hepsera, Tyzeka, and Viread may be taken with or without food.
- Take your medications around the same time each day.

How should I store the oral medications?3-7
- Store these medications in the prescription bottle provided by your pharmacy.
- Store at room temperature between 15°C to 30°C (59°F to 86°F).
- Protect all medications from light.

What side effects may I expect from the oral medications?3-7

Side effects vary from person to person. If you get side effects that continue or get worse, please contact your doctor or pharmacist.
Listed below are some common side effects you may experience.

- Changes in the way the kidneys work
- Diarrhea
- Dizziness
- Gas in the stomach or intestine
- Headache
- Indigestion
- Infection
- Joint pain
- Muscle pain
- Nausea/vomiting
- Trouble sleeping
- Pain or discomfort in stomach area
- Rash
- Tiredness

Oral medications for Hepatitis B may also have serious side effects. Call your doctor or pharmacist if you think you are having a serious side effect. Listed below are some serious side effects of taking oral medications for Hepatitis B and how to recognize them.

**Table 1. Serious side effects of oral Hepatitis B medications.**

<table>
<thead>
<tr>
<th>Serious Side Effects</th>
<th>Possible Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney problems</td>
<td></td>
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<tr>
<td>Back pain</td>
<td>Pain in one side of the body</td>
</tr>
<tr>
<td>Blood in the urine</td>
<td>Pain in the stomach area</td>
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<tr>
<td>Fast heartbeat</td>
<td>Skin cool to touch</td>
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<tr>
<td>Fever</td>
<td>Sweating</td>
</tr>
<tr>
<td>Nausea and vomiting</td>
<td>Urinating less or not at all</td>
</tr>
<tr>
<td>Pale skin</td>
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</tbody>
</table>

| Lactic acidosis      |                   |
| Cold arms and legs   | Trouble breathing |
| Dizzy or light-headed| Unusual muscle pain|
| Fast or irregular heartbeat | Weak or tired |
| Stomach pain with nausea and vomiting | |

| Liver problems       |                   |
| Dark urine           | Lower stomach pain |
| Light colored stools | Nausea |
| Loss of appetite for several days or more | Yellowing of skin/whites of eyes |

| Muscle problems      |                   |
| Muscle aches         | Pain, tenderness, or weakness of muscles |

| Nerve problems       |                   |
| Numbness, tingling, burning feelings in arms or legs | Problems walking |

| Inflammation of the pancreas |                   |
| Diarrhea                    | Swollen and tender stomach area |
| Fast heartbeat              | Nausea and vomiting |
| Fever                       | |
| Oily stools                 | |

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How can I make some of the common side effects more tolerable?

Here are some tips to manage your side effects:

- **Nausea** – Drink clear liquids. Eat light, bland foods, such as saltine crackers or plain bread. Avoid fried, greasy, spicy, or sweet foods.
- **Vomiting** - Avoid solid food until your vomiting stops. Drink frequent, small amounts of clear liquids such as Gatorade. Don’t drink too much at one time.
- **Fatigue** – Prioritize your activities. Save energy for what matters most to you, and pass up other tasks. Avoid doing two heavy chores one after another. Drink cool liquids.
- **Loss of appetite** – Try to eat small frequent meals, even if you do not feel like eating. Avoid carbonated drinks and gas-forming foods, such as broccoli or cabbage, as they can make you feel full early.
- **Headaches** – Reduce light and sound volume since they can trigger headaches. Try to drink plenty of fluids, but avoid alcohol and caffeine.

Please tell your doctor if any of these symptoms continue, or if they cause you to want to stop taking your medication. It is very important to take your medication as directed by your doctor.

Why is it important to take my Hepatitis B medications as prescribed?

The liver is an important part of your body. If left untreated, HBV can lead to scarring of the liver (called cirrhosis), liver cancer, liver failure, or death. It is very important to take your medication as directed by your doctor. Do not stop taking the medication until your doctor tells you to stop taking it.

Why do I need to keep getting blood tests?

If you have chronic Hepatitis B, your doctor will regularly check the level of HBV in your body through blood tests. These tests will also help your doctor to find out how well your body is responding to the medication, and to see how well your liver is doing. It is important to ask your doctor to explain what the test results mean.
How can I keep myself healthy?¹,²

There are several things you can do to stay healthy:

- Get regular check-ups by a doctor who specializes in the liver.
- Stay on the medications your doctor has told you to take.
- Get Hepatitis A vaccination to keep yourself from getting another type of liver infection.
- Maintain a healthy lifestyle by eating right, exercising, and getting proper rest.
- If you drink alcohol, try to stop. Get help from your doctor and look for community programs. Check to see if your health insurance benefits offer help.
- Avoid sharing needles. Always use clean needles.

How can I keep those around me healthy?¹,²

There are several things you can do to help protect those around you from becoming infected with Hepatitis B:

- Try not to share any personal items, such as toothbrushes, razors, nail clippers, combs or hairbrushes with others.
- Practice safe sex; use condoms.
- People who live with you should be vaccinated with the Hepatitis B vaccine.

What other resources are available for Hepatitis B?

For more information on Hepatitis B, please contact the following resources:

- **Centers for Disease Control and Prevention (CDC)**
  Phone: **1-800-CDC-INFO (1-800-232-4636)**
  Web site: [www.cdc.gov/hepatitis/B/index.htm](http://www.cdc.gov/hepatitis/B/index.htm)

- **American Liver Foundation**
  Phone: **1-800-GO-LIVER (1-800-465-4837)**
  Web site: [www.liverfoundation.org/abouttheliver/info/hepatitisb/](http://www.liverfoundation.org/abouttheliver/info/hepatitisb/)
References:


The information in this educational handout doesn’t substitute the medical advice, diagnosis, or treatment provided by your doctor. Always seek the help of your doctor or a qualified health provider for any questions about your medical condition.