



### Hepatitis B

<b>DEFINITION</b>	Hepatitis B infections are caused by Hepatitis B (HBV) virus, transmitted by parenteral, perinatal, and exposure to blood or body fluids from an individual with a positive HBsAg. Incubation period from time of exposure to onset of symptoms may vary from 6 weeks to 6 months. HBV may present as 2 possible phases: acute and chronic. Acute hepatitis B refers to newly acquired infection. 85%-90% of people with acute hepatitis, symptoms resolve over weeks to months. In chronic hepatitis, infection is greater than 6 months and 5% of people will never completely resolve the infection while 5%-10% will have chronic carrier status. Chronic hepatitis B may result in life threatening conditions such as liver cancer and liver disease. Hepatitis B is considered a reportable condition in the state of North Dakota.
<b>SUBJECTIVE</b>	Should include: <ol style="list-style-type: none"><li>1. Medical, sexual, contraceptive and immunization history</li><li>2. Pregnancy status</li><li>3. Symptoms (frequently compared to flu symptoms): fever (uncommon), loss of appetite, fatigue, nausea, and vomiting (common), pruritus, pain over the liver, joint and muscle pain (common), skin appears yellow, urine becomes dark, and clay colored stools; patient may be asymptomatic</li></ol> Primary risk factors associated with HBV infection include: <ol style="list-style-type: none"><li>1. Born in areas of high-prevalence; Asia, Pacific Islands, Middle East, Mediterranean, South America, Eastern Europe, Caribbean</li><li>2. Unprotected sex with infected partner(s)</li><li>3. MSM (men having sex with men)</li><li>4. History of other STIs; HIV infection</li><li>5. Injection of illegal drugs</li><li>6. Neonatal exposure of infected mother</li><li>7. Health care providers, public service workers who have contact with infected blood/body fluids</li><li>8. Individuals in correctional facilities or drug abuse treatment centers</li><li>9. Hemodialysis patients (rare in U.S.)</li><li>10. Persons with multiple sex partners</li><li>11. Household contacts of infected persons</li><li>12. Residents and staff of facilities for developmentally disabled persons</li><li>13. Travelers to regions with intermediate or high rates of hepatitis B (HBsAg prevalence of &gt; 2%)</li></ol>
<b>OBJECTIVE</b>	May include: <ol style="list-style-type: none"><li>1. Jaundice</li><li>2. Tenderness with hepatomegaly or splenomegaly</li><li>3. Fever</li><li>4. Abnormal liver function tests</li><li>5. +HBsAg</li></ol>
<b>LABORATORY</b>	Should include: <ol style="list-style-type: none"><li>1. HIV/STI testing, as indicated</li><li>2. Serologic testing for HBV<ol style="list-style-type: none"><li>a. Positive HBsAg can be present in both acute and chronic infection</li><li>b. The presence of IGM antibody to HBV core antigen (IgM anti-HBc) is diagnostic of acute or recently acquired HBV infection.</li><li>c. The presence of HBsAg and total anti-HBc with a negative test for core antigen (IgM anti-HBc) indicates chronic HBV infection.</li></ol></li></ol>



	<ul style="list-style-type: none"><li>d. The presence of anti-HBc alone may indicate a false positive result, acute, resolved, or chronic infection.</li><li>e. The presence of positive HBsAb indicates immunity from vaccination or resolved infection.</li></ul> <p>3. Pregnancy test, as indicated</p> <p>May include:</p> <ul style="list-style-type: none"><li>1. Liver function test</li><li>2. Complete blood count (CBC)</li></ul>
<b>ASSESSMENT</b>	Hepatitis B Infection: Acute or Chronic
<b>PLAN</b>	<ul style="list-style-type: none"><li>1. Patient is infectious 4 to 6 weeks before symptoms and unpredictable after symptoms; screen sexual partners</li><li>2. No specific therapy is available for persons with acute hepatitis B; treatment is supportive. There are several antiviral medications that may assist in fighting the infection and decreasing long term liver damage.</li><li>3. Two products approved for hepatitis B prevention:<ul style="list-style-type: none"><li>a. Hepatitis B immune globulin (HBIG) provides temporary protection (approximately 3 months) from HBV and is used as a post exposure prophylaxis (PEP) in unvaccinated persons or in persons who have not responded to vaccination.</li><li>b. Hepatitis B vaccine, along with HBIG should be given to clients as a pre-exposure vaccination and for PEP.</li></ul></li><li>4. Refer to CDC's Hepatitis B vaccination recommendations: Hepatitis B Vaccination   CDC</li><li>5. Acute viral hepatitis is a Category 3 or 4 in the MEC for any combined hormonal contraception. Chronic hepatitis is a category 1 for all methods of contraception.</li></ul>
<b>CLIENT EDUCATION</b>	<ul style="list-style-type: none"><li>1. Cover cuts and skin lesions to prevent spread of infection thru secretions of blood; blood spills should be cleaned with bleach and bagged independently before placed in the trash</li><li>2. Refrain from donating blood, plasma, organs or tissue and semen products</li><li>3. Counsel clients on the importance of safer sex practices for risk reduction, risks of transmission to household, sexual, &amp; needle-sharing contacts, and the need for such contacts to receive both Hepatitis A and Hepatitis B vaccination, as indicated</li><li>4. HBV is not usually spread by hugging, coughing, food, or water</li><li>5. Clients do not need to be excluded from work, school, or childcare</li><li>6. Avoid or limit alcohol consumption</li><li>7. Provide information of area support groups coping with HBV infection</li><li>8. Avoid sharing toothbrushes or razors, injection supplies.</li><li>9. Refrain from starting any new medications including OTC and herbal supplements without checking with their health care provider.</li></ul>
<b>CONSULT/ REFER TO PHYSICIAN</b>	<ul style="list-style-type: none"><li>1. All persons with +HBsAg results should be referred to appropriate physician for management</li></ul>



**References:**

1. Hepatitis B Vaccination | CDC
2. North Dakota Department of Health STD (ndhealth.gov)
3. <https://www.health.nd.gov/sites/www/files/documents/Files/MSS/HIVSTIHEP/CTR/CTRManual.pdf>
4. Hepatitis (Viral) | NIDDK (nih.gov)
5. <https://www.cdc.gov/std/treatment-guidelines/STI-Guidelines-2021.pdf>
6. Professional Resources for 'Know Hepatitis B' Campaign | CDC
7. Buttaro, T., Trybulski, J., Polgar-Bailey, P., Sandberg-Cook, J. (2017). Primary care: A collaborative practice. (5<sup>th</sup> ed.). Elsevier: St. Louis, MO.