

## Hepatitis B Post-Exposure Prophylaxis

The following information applies to immune competent individuals. Consultation with a physician specializing in infectious diseases is required to manage immunocompromised individuals.

Hepatitis B immune globulin (HBIG) is indicated in the case of higher risk sexual assault, or if one of the individuals is known to be HBsAg positive or tests positive within 48 hours of exposure. In unvaccinated individuals, the risk of sexual or needlestick transmission is increased if the source has HBV DNA > 1000-2000 IU/mL.<sup>A, B, C</sup>

For steady, long term sexual partners of individuals with chronic HBV infection, test for HBsAg, anti-HBs and anti-HBc Total to determine if susceptible or if previously infected prior to offering post-exposure prophylaxis. Because the risk of transmission is low and the number needed to treat to prevent infection is extremely high, consensual adult sex with a known sex trade worker or persons who inject drugs or community acquired needlestick injuries are **not** indications for HBIG.

Vaccination history of exposed person	Test for HBsAg, anti-HBc Total and anti-HBs <sup>1</sup>	Source is HBsAg positive or tests positive within 48 hrs of exposure, and cases of higher risk sexual assault <sup>2, 3</sup>	Source is unknown, not tested, or tests HBsAg negative within 48 hrs of exposure	Re-test HBsAg, anti-HBc Total & anti-HBs <sup>4</sup> Offer second hepatitis B vaccine series to non-responders.
Documented prior anti-HBs ≥ 10 IU/L	No follow-up			
No documentation/Unvaccinated	Yes	Give HBIG and one complete hepatitis B vaccine series	Initiate hepatitis B vaccine series	Yes
Non-responder to one hepatitis B vaccine series			Complete second hepatitis B vaccine series	Re-test only
1 dose of hepatitis B vaccine, anti-HBs status unknown	Yes	Give HBIG and complete hepatitis B vaccine series	Complete hepatitis B vaccine series	Yes
2 doses of a 3 dose hepatitis B vaccine series and anti-HBs status unknown	Yes If anti-HBs < 10 IU/L,	Give HBIG and third dose of hepatitis B vaccine. Repeat third dose if given too early in the series.	Give 1 dose of hepatitis B vaccine. In 4 wks, retest for anti-HBs; if anti-HBs < 10 IU/L complete second hepatitis B vaccine series.	Yes
	Yes If anti-HBs ≥ 10 IU/L,	Complete hepatitis B vaccine series	Complete hepatitis B vaccine series	No
1 complete hepatitis B vaccine series (2 or 3 dose) and anti-HBs status unknown	Yes If anti-HBs < 10 IU/L,	Give HBIG and 1 dose of hepatitis B vaccine	Give 1 dose of hepatitis B vaccine. Retest anti-HBs in 4 wks; if < 10 IU/L complete second hepatitis B vaccine series	Yes
	Yes If anti-HBs ≥ 10 IU/L,	No follow-up		
2-series non-responder to hepatitis B vaccine <sup>5</sup>	HBsAg and anti-HBc Total only	Give HBIG. In 4 weeks, give a second dose of HBIG.	No follow-up	Re-test HBsAg and anti-HBc Total only

<sup>1</sup> One dose of hepatitis B vaccine may be given while waiting for serology results, regardless of prior immunization history.

<sup>2</sup> Examples of higher risk sexual assault: assailant is a person who injects drugs or is from a HBV endemic country. Evaluate on a case-by-case basis.

<sup>3</sup> HBIG is preferably given within 48 hrs, but may be given up to 7 days after percutaneous exposure and up to 14 days after permucosal exposure (refer to the Communicable Disease Control Manual, Chapter 1, [Hepatitis B](#), Section 6.1)

<sup>4</sup> Repeat serology at least **1 month** after last vaccine dose or **6 months** after HBIG, whichever is longer.

<sup>5</sup> If after 2 complete hepatitis B vaccine series the anti-HBs remains < 10 IU/L (measured at 1 to 6 months post-vaccination), the client is considered susceptible to HBV and will require prophylaxis in post-exposure scenarios.

<sup>A</sup> Coffin CS, Fung SK, Ma MM. Management of chronic hepatitis B: Canadian Association for the Study of the Liver consensus guidelines. Canadian Journal Of Gastroenterology 2012; 26(12):917-38.

<sup>B</sup> CDC. Updated CDC Recommendations for the Management of Hepatitis B Virus–Infected Health-Care Providers and Students. CDC MMWR. Recommendations and Reports. 2012; 61(3):16.

<sup>C</sup> Ogunremi T, Defalco K, Johnston BL, Boucoiran I, Cividino M, Cleghorn B, et al. 1208. Preventing Transmission of Bloodborne Viruses from Infected Healthcare Workers to Patients in Canadian Healthcare Settings: A National Guideline. Open Forum Infectious Diseases. 2019;6:S434.