

# Hepatitis B Immune Globulin (HBIG)

## Indication:

HBIG is recommended for post-exposure prophylaxis (PEP) to hepatitis B virus (HBV) by percutaneous, mucosal, sexual, household or perinatal exposure (See Table 2). HBIG should be given as soon as possible, preferably within 12 hours for perinatal exposure and within 24 hours for percutaneous or mucosal exposure. PEP is unlikely to be beneficial if initiated 7 days after percutaneous exposure or 14 days after sexual exposure.

**Table 1: Recommended Post-exposure Prophylaxis (PEP) for Occupational Exposure to Hepatitis B virus (HBV)**

Vaccination and anti-body status of exposed person*		Treatment		
		Source HBsAg** Positive	Source HBsAg** Negative	Source unknown or not available for testing
Unvaccinated		HBIG† x1 and initiate HB vaccine series‡	Initiate HB vaccine series‡	Initiate HB vaccine series‡
Previously Vaccinated	Known responder§	No treatment	No treatment	No treatment
	Known nonresponder¶	HBIG x1 and initiate revaccination or HBIG x2 <sup>α</sup>	No treatment	If know high-risk source, treat as if source were HBsAg positive
	Antibody response unknown	Test exposed person for anti-HBs¶ > If adequate§, no treatment necessary > If inadequate¶, administer HBIG x1 and vaccine booster	No treatment	Test exposed person for anti-HBs¶ > If adequate§, no treatment is necessary > If inadequate¶, administer vaccine booster and recheck titer in 1 – 2 mo.

\* Persons who have previously been infected with HBV are immune to reinfection and do not require PEP.

\*\* Hepatitis B surface antigen

† HBIG dose is 0.06mL/kg administered intramuscularly (IM); (usually 3-5 mL)

§ Persons with adequate levels of serum antibody to HBsAg (i.e., anti-HBs ≥10mIU/mL)

¶ Persons with inadequate response to vaccination (i.e., serum anti-HBs <10mIU/mL)

α The option of giving one dose of HBIG and reinitiating the vaccine series is preferred for nonresponders who have not completed a second 3-dose vaccine series. For persons who previously completed a second vaccine series but failed to respond, two (2) doses of HBIG are preferred. Second dose should be administered 30 days after the first dose.

¶ Antibody to HBsAg

‡ Administer Hepatitis B vaccine at 0, 1, and 6 months.



**Table 2: Recommended PEP for Infants of HBsAg (+) Mothers**

Mothers' HBsAg Status			
	Positive HBsAg status	Negative HBsAg	Unknown
Birth weight ≥ 2000 grams	Administer HBIG and HB vaccine within 12 hours of birth <sup>#</sup> .	No HBIG required. Administer HB vaccine prior to discharge	Administer HB vaccine within 12 hours of birth. Do not give HBIG unless mother is confirmed to be HBsAg+ <sup>§</sup> .
Birth weight < 2000 grams	Administer HBIG and HB vaccine within 12 hours of birth <sup>††</sup> .	No HBIG required. Administer HB vaccine prior to discharge	Administer HB vaccine within 12 hours of birth. If mother's status cannot be determined within 12 hours, administer HBIG <sup>δδ</sup> .

**Infants (≥2000 grams) of HBsAg-positive mother or unknown HBsAg status<sup>#</sup>:** Administer HBIG along with the first dose of HB vaccine within 12 hours of birth (use two different sites). The second dose of HB vaccine should be administered 1-2 months after the first dose and the third dose at 6 – 18 months of age.

**Preterm infants (< 2,000 grams at birth) born to HBsAg-positive mother<sup>††</sup>:** Give HBIG along with first dose of HB vaccine within 12 hours of birth. Do not count the birth dose in the 3-dose schedule. Administer next dose of HB vaccine in the series when the infant reaches a chronologic age of 1 month, the third dose 1-2 months after the second, and the fourth dose at 6 – 18 months of age.

**Infants whose mother's HBsAg status is unknown at birth<sup>§</sup>:** Same as for infant of HBsAg+ mother except do not give HBIG unless mother is confirmed to be HBsAg+. If mother is HBsAg+ administer HBIG as soon as possible to infant, but no later than 7 days after birth. Continue with the recommended schedule for HB vaccine with the second dose at 1-2 months, and the third dose at 6 months of age.

**Preterm infants (< 2,000 grams at birth) whose mother's HBsAg status is unknown<sup>δδ</sup>:** If the maternal HBsAg status cannot be determined within 12 hours of birth administer HBIG. Administer hepatitis B vaccine within 12 hours of birth. The birth vaccine dose is not counted as part of the series, and the infant should receive three additional doses beginning at age 1 month.

**Combination vaccines:** Combination vaccines (Pediarix and Comvax) should not be used for the birth dose of HB vaccine, but may be used to complete the 3 – dose series. For more information on the recommendations for use of hepatitis B combination vaccines, go to

<http://publichealth.lacounty.gov/ip/providers/B71.htm>.

