

Hepatitis B Contact Follow up for Health Care Professionals

A person who is exposed to the blood or body fluids of an individual who is positive for hepatitis B virus (HBsAg positive) is considered a contact and requires follow up. Contacts include household and sexual contacts of the hepatitis B positive person. Follow up of contacts includes testing to determine immune status, vaccination, and counseling on safer sex practices until testing determines immunity.

Testing recommendations for contacts include the following:

HBsAg	hepatitis B surface antigen - marker of current infection
Anti-HBs	antibody to hepatitis B surface antigen - marker of immunity
Anti-HBc	antibody to hepatitis B core antigen - marker of exposure to virus either currently or in the past

The above tests must be written out under the “OTHER TEST” section on a laboratory requisition. Do not select “hepatitis immunity” as only anti-HBs will be done, which does not rule out infection. Do not select “acute hepatitis” as only HBsAg will be done and it will only be done if the alanine transaminase (ALT) is elevated.

The contact of the hepatitis B positive person should be advised to use safer sex precautions and/or to avoid sharing objects that could be contaminated with their blood until further recommendations can be made based on blood test results and/or vaccination and post-vaccination serology.

To save time, you can offer the first dose of hepatitis B vaccine when the initial blood tests are ordered. To avoid a false positive HBsAg result, ensure blood is drawn before vaccine is administered. Alternatively, you can wait until the blood test results come back to determine if the vaccine is needed.

Hepatitis B vaccine may be ordered free of charge by contacting the Middlesex-London Health Unit (MLHU) at 519 663-5317 ext. 2236. Alternatively, you may refer your patient to the MLHU Immunization Clinic in London, which is open Monday and Friday from 10 a.m. - 4 p.m. and Wednesday from 10 a.m - 7 p.m.

Management of the contact depending on test results:

Anti-HBs positive (anti-HBs \geq 10 IU/ml), HBsAg negative:

- The contact is immune and no further follow-up or vaccination is needed.

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HBsAg positive, anti-HBc positive, regardless of anti-HBs result:

- The contact is infected and infectious. No further vaccination is indicated and they should be advised of the need for ongoing safer sex and blood-borne precautions. The MLHU should be notified, as hepatitis B infection is reportable.

Anti-HBs negative, HBsAg negative, anti-HBc negative and the contact was NOT previously vaccinated:

- The contact is neither infected nor immune and requires a full course of the hepatitis B vaccine. Schedules for hepatitis B vaccine can be found in the Canadian Immunization Guide, evergreen edition [Hepatitis B Vaccine - Part 4 - Active Vaccines - Canadian Immunization Guide - Public Health Agency of Canada](#). Post-vaccination testing (anti-HBs, HBsAg and anti-HBc) should be performed one month after the final dose, as this will determine whether vaccination was successful. If the serology does not indicate immunity (not immune if anti-HBs <10 IU/ml) and the individual is not infected (not HBsAg positive), a complete additional course of hepatitis B vaccine is indicated.

Anti-HBs negative, HBsAg negative, anti-HBc negative and contact WAS previously vaccinated:

- ***If testing was done within 1-6 months after the vaccination series*** was completed and the serology does not indicate immunity (not immune is anti-HBs <10 IU/ml), a complete additional course of hepatitis B vaccine is indicated. Schedules for hepatitis B vaccine can be found in the Canadian Immunization Guide, evergreen edition, [Hepatitis B Vaccine - Part 4 - Active Vaccines - Canadian Immunization Guide - Public Health Agency of Canada](#). Post-vaccination testing (anti-HBs, HBsAg and anti-HBc) should be performed one month after completion of the second series.
- ***If testing was done more than 6 months after completion of the vaccination series,*** the contact may never have mounted an immune response or may have waning immunity. The contact should be offered a single dose of hepatitis B vaccine and the blood tests (anti-HBs, HBsAg and anti-HBc) should be redrawn one month after this dose. If the contact had a titre that has waned over time, this single dose will boost their immune response and the contact will be positive for anti-HBs (≥ 10 IU/ml) one month after that single dose.

If at one month after the single dose the contact remains non-immune (non-immune is anti-HBs < 10 IU/ml) and the contact is not infected (HBsAg negative), the contact should complete the second course of vaccine (as appropriate based on the schedules in the Canadian Immunization Guide) and the blood tests (anti-HBs, HBsAg and anti-HBc) should be repeated one month after completing the second series.

- ***If anti-HBs remains negative after two complete series of hepatitis B vaccination,*** no further hepatitis B vaccine should be administered. The contact is considered a non-responder and should seek medical care after a blood-borne exposure. Blood-borne exposures that pose a risk for hepatitis B transmission should be managed with two doses of hepatitis B immune globulin (HBIG) one month apart.

Anti-HBc positive, anti-HBs negative, HBsAg negative:

- Contact the Health Unit to discuss interpretation and management options.

For more information please contact the Middlesex-London Health Unit Communicable Disease Intake Line at 519 663-5317 ext. 2330 or see Interpretation of Hepatitis Serology Fact sheet