

Hepatitis B immunization and serology:

Hepatitis B is a vaccine preventable infection. A documented vaccination series according to a recommended immunization schedule is mandatory for learners in undergraduate and graduate health professional programs unless they are known to have chronic Hepatitis B infection or are immune due to naturally acquired infection. A test for immunity (anti-HBs = Hepatitis B surface antibody) is also required one or more months after completion of a DOCUMENTED vaccination series.

Proof of immunity:

Proof of immunity requires either positive serology for immunity (anti-HBs \geq 10 IU/L) conducted one or more months after a fully DOCUMENTED vaccination series, or serologic evidence of naturally acquired infection (positive anti-HBs plus positive anti-HBc). Positive anti-HBs serology alone is not considered proof of immunity by the Canadian Immunization Guide if immunization records are missing or incomplete.

Risk of infection:

Learners without proof of immunity are considered susceptible to infection and may require passive immunization with immune globulin in the event of a possible exposure; learners should report an incident immediately as the efficacy of immune globulin decreases significantly 48 hours after exposure. Hepatitis B virus is spread through contact with infected blood and body fluids and is far more infectious than HIV. The risk of infection in the clinical setting can be greatly reduced by putting in place proper [infection control practices](#).

FAQ:

What if both a complete vaccination series and post-series positive anti-HBs are documented?

You are considered immune. Booster doses of vaccine and repeat serology are not recommended.

What if the anti-HBs serology is positive but my immunization records are missing or incomplete?

You are considered susceptible to infection. You should complete a fully documented vaccination series plus repeat anti-HBs serology one month after the series is completed. All previous doses of vaccine count towards the total as long as minimum spacing requirements are met (there is no maximum). (Note learners in Midwifery, Physician Assistant and Undergraduate Medicine programs only also need repeat HBsAg serology one or more months after completing a documented primary vaccination series.)

What if the anti-HBs serology is not immune after one documented vaccination series (anti-HBs < 10 IU/L)?

If the series was completed more than six months ago, you need ONE booster plus repeat anti-HBs serology one month later. If not immune after the first booster, you need TWO additional boosters spaced five months apart plus repeat anti-HBs serology one month after the third booster. If the series was completed between one and six months ago, you need a second series (three doses given at 0, 1, 6 months) plus repeat anti-HBs serology one month after completion of the second series.

What if the anti-HBs serology is not immune after two documented vaccination series?

You are considered a vaccine non-responder and are unlikely to benefit from further immunizations. Repeat serology is not required. It is possible that a person who does not respond to the vaccine may already be infected with Hepatitis B, therefore testing for HBsAg (Hepatitis B surface antigen) is recommended.

What if Hepatitis B immunizations and serology have not been completed when my Health Screening Record (or AFMC immunization form for visiting undergraduate medical learners) is submitted?

Undergraduate and graduate learners must complete as much as possible prior to their start date. You may attend clinical activities while you are in the process of completing the full requirement.

Questions? Contact the Health Screening Office: (905) 525-9140 ext 22249, hrsadmin@mcmaster.ca

For more information:

[Canadian Immunization Guide Hepatitis B Vaccine](#)

[Faculty of Health Sciences Blood Borne Viruses Information](#)