

## Individuals at High Risk for Vaccine Preventable Disease

All considerations and recommendations are for pre-exposure situations (i.e., before individuals who are members of one or more of these groups are knowingly exposed to a vaccine preventable disease).

[Table 1: Vaccines Recommended for Immunocompromised Clients](#) provides health care providers with an overview of vaccines to consider when assessing an individual with a health condition that is known to suppress the immune system.

There are a variety of other health conditions that place an individual at increased risk for certain vaccine preventable diseases. Refer to [Table 2: Vaccines Recommended for Individuals with Other Health Conditions](#) for an overview of high risk health conditions and recommended vaccines.

There are a few groups of individuals (e.g., health and child care workers, new Canadians) who require special consideration of their immunization status and who are eligible for certain vaccines. [Table 3: Vaccines Recommended for Select Populations](#) outlines the immunization needs of members of select populations.

When assessing a high risk individual's eligibility for certain vaccines, it is important to assess overall immunization status and current state of health. Unless contraindicated (e.g., live vaccines for immune-suppressed individual), ensure routine vaccines are included in the client's immunization plan.

When a client presents with an identified health condition or is identified as being a member of a select population:

- Ascertain the details of client's specified health condition (if applicable).
- Assess the client's immunization and communicable disease history.
- Refer to recommendations relating to the client's medical condition or population.
- Ensure routine immunizations are up-to-date. There is no indication to re-administer a primary immunization series except for HSCT recipients.
- Assess the individual's eligibility for additional recommended vaccines.
- Assess for any contraindications to any recommended vaccines.
- For the administration of live vaccines to immunocompromised individuals, consult the primary care physician, medical specialist or nurse practitioner most knowledgeable about the client's current health status, their immunosuppressive disease, and the vaccine. Refer to [Immunization with Inactivated and Live Vaccines](#).
- For more information on specific vaccines, refer to [Part 4 – Biological Products](#).

**Table 1: Vaccines Recommended for Immunocompromised Clients**

Note: Only HSCT clients require re-immunization after treatment, due to the ablation of hematopoietic cells in the bone marrow pre-transplant. This treatment eliminates the patient’s immune memory. All other immunocompromised individuals should be immunized according to past immunization history and review of recommendations within [Part 2 – Immunization of Special Populations](#), Specific Immunocompromising Conditions and [Part 4 – Biological Products](#). The exception to this is asplenic and congenital immunodeficiency clients 5 years of age and older who should receive 1 dose of Hib vaccine regardless of their immunization history.

Immunocompromising Conditions	Vaccines								
	Special Indications							Routine	
	Meningo <sup>A</sup>	Pneumo <sup>B</sup>	Hib	Hep A	Hep B	Influenza <sup>C</sup>	HPV	Inactivated	Live
Asplenia (anatomic or functional), including sickle cell disease	✓	✓	✓			✓		✓	SC
Congenital immunodeficiency (e.g., complement, properdin, or factor D deficiency)	✓	✓	✓		✓	✓		✓	C
Hematopoietic Stem Cell Transplant (HSCT) recipient	✓	✓	✓	✓	✓	✓		✓	SC
HIV infection		✓	✓	✓	✓	✓	✓	✓	SC
Immunosuppressive therapy		✓	✓			✓		✓	C
Chronic kidney disease (pre-dialysis and dialysis clients)		✓			✓	✓		✓	SC
Liver disease (chronic)		✓		✓	✓	✓		✓	✓
Hepatitis B (chronic)		✓		✓		✓		✓	✓
Hepatitis C (anti-HCV positive)		✓		✓	✓	✓		✓	✓
Malignant neoplasm (adult) <sup>D</sup>		✓	✓			✓		✓	C
Solid organ or islet cell transplant candidate or recipient	✓	✓	✓	liver	✓	✓		✓	SC C-post transplant

C = Contraindicated.

SC = Special considerations exist. Refer to the specific immunocompromising conditions in [Part 2 – Immunization of Special Populations](#) and to [Part 4 – Biological Products](#).

<sup>A</sup> Meningo = Meningococcal quadrivalent conjugate vaccine.

<sup>B</sup> Pneumo = Pneumococcal conjugate and/or polysaccharide vaccine (PCV13 and/or PPV23).

<sup>C</sup> Yearly influenza immunization is indicated for all immunocompromised individuals 6 months of age and older.

<sup>D</sup> For pediatric oncology clients, refer to [Immunization of Pediatric \(those under 18 years of age\) Oncology Clients who have Completed Treatment, Including Autologous HSCT](#).

**Table 2: Vaccines Recommended for Individuals with Other Health Conditions**

Conditions	Vaccines <sup>A</sup>							
	Special Indications						Routine	
	Meningo <sup>B</sup>	Pneumo <sup>C</sup>	Hib	Hep A	Hep B	Influenza	Inactivated	Live
Infants at high risk for hepatitis B					✓		✓	✓
Bleeding disorders (e.g., hemophilia)				✓	✓		✓	✓
Chronic heart or lung disease		✓				✓	✓	✓
CSF leak (chronic)		✓					✓	✓
Cochlear implant candidate or recipient		✓	✓				✓	✓
Cystic fibrosis		✓				✓	✓	✓
Diabetes		✓				✓	✓	✓
Neurologic disorders		✓				✓	✓	✓
Pregnancy						✓	✓	C
Prematurity						✓	✓	✓

C = Contraindicated.

**Table 3: Vaccines Recommended for Select Populations**

Populations	Vaccines <sup>A</sup>								
	Special Indications						Routine		
	Meningo <sup>B</sup>	Pneumo <sup>C</sup>	Hib	Hep A	Hep B	HPV	Influenza	Inactivated	Live
Health and Childcare Workers							✓	✓	✓
Students of Healthcare Professions					✓		✓	✓	✓
Inmates of Provincial Correctional facilities				✓	✓		✓	✓	✓
International travelers <sup>D</sup>								✓	✓
Men who have sexual contact with men				✓	✓	✓		✓	✓
New Canadians								✓	✓
Unknown or uncertain immunization status								✓	✓

Tables are intended as a guideline only. For specific schedule information regarding individual vaccines, refer to [Part 4 – Biological Products](#).

<sup>A</sup> Vaccines that are recommended and provided free are included in this table. Individuals may be eligible for other vaccines if other co-existing health conditions exist.

<sup>B</sup> Meningo = Meningococcal conjugate vaccines.

<sup>C</sup> Pneumo = Pneumococcal conjugate and/or polysaccharide vaccine.

<sup>D</sup> Additional vaccines may be recommended for international travel. Consultation with a travel health professional is recommended.