

## Medical Arts pharmacists administer **MORE** than just flu shots

Public awareness of flu vaccine administration by pharmacists has been steadily growing over the past four years. But people may not know that Ontario pharmacists can now give 13 additional vaccines including a number of “travel vaccines.”

Including the flu shot, vaccines that can be given to patients 5 years or older, can help prevent hepatitis A and B, shingles, HPV, meningococcal disease, rabies, typhoid and varicella. And the full list of the “13” includes:

- Bacille Calmette-Guérin (BCG)
- Haemophilus Influenzae Type B (Hib)
- Hepatitis A
- Hepatitis B
- Herpes Zoster (Shingles)
- Human Papillomavirus (HPV)
- Japanese Encephalitis
- Meningococcal disease
- Pneumococcal disease
- Rabies
- Typhoid
- Varicella (Chickenpox)
- Yellow Fever

Additionally, appropriate vaccine administration is essential to optimal safety and efficacy. Thus pharmacists who administer vaccines undergo education and competency-based training before providing vaccines to the public.

### Overall, which vaccines do you need today?

Immunizations schedules can be sourced at the following link:

<https://www.canada.ca/en/public-health/services/provincial-territorial-immunization-information.html>

The link below categorizes vaccines you need by age and immunization history:

<https://vaccines411.ca/immunization-brochure/index.php>

## Other Important Notes

For optimal, full-range infectious disease protection, the “schedule” should be followed as closely as possible. However, if a person deviates (from the schedule) and misses required booster shots, it is not necessary to start over. Final antibody concentrations can be attained whenever the complete vaccine series has been administered.

Exceptions include: **Dukoral, oral vaccine** (for cholera and travellers diarrhea), and **Rabies vaccine** for post-exposure prophylaxis.

**Dukoral and Rabies vaccine must be given according to the recommended schedule otherwise the immunization must be resumed from the first dose.**

## Concurrent administration of Vaccines : Inactivated Vaccines and Live Vaccines

In general, all vaccine doses for which a person is eligible should be administered at a single visit to increase the probability that the individual will be fully immunized. Administration of multiple vaccines is particularly important for people preparing for travel.

Inactivated vaccines may be administered concomitantly with, or at any time before or after, other inactivated vaccines or live vaccines. The exception is **Prevnar-13 and Pneumovax-23** which are pneumococcal polysaccharide vaccine and pneumococcal conjugate respectively.

Live oral vaccines or live intranasal vaccines can be given concomitantly with, or any time before or after any other live or inactivated vaccine, regardless of the route of administration of the other vaccine. Exceptions include oral cholera vaccine (inactivated) and oral typhoid vaccine (live), which should be administered at least 8 hours apart.

Vaccines or Conditions	Abbreviations	Product Names	Require a Prescription (Yes or No)	Recommended Immunization Schedule	Injection Site Over 5 yrs. old
Hepatitis A	HA	Avaxim Avaxim Ped. Havrix 1440 Havrix 720 Jr Vaqta	YES	One dose and One booster at 6 and 12 months	IM
Hepatitis A, Hepatitis B	HAHB	Twinrix Twinrix Jr	YES	3 doses at 0,1 and 6 months	IM
Hepatitis B	HB	Engerix B Recombivax HB	YES for adults NO for pediatric	Dosing schedules differ by product Engerix B = 3 doses at 0, 1 and 6 months Recombivax = 3 doses at 0, 1 and 2 months	IM
Herpes Zoster	HZV or Zos	Zostavax-II	YES	One dose after age 50	SC
Hepatitis A, typhoid	HA-Typh-I	Vivaxim	YES	One dose as first dose or as booster	IM

Vaccines or Conditions	Abbreviations	Product Names	Require a Prescription (Yes or No)	Recommended Immunization Schedule	Injection Site Over 5 yrs. old
Human papillomavirus	HPV2 HPV4 HPV9	Cervarix Gardasil Gardasil 9	NO	Dosing varies by product	IM
Influenza	Inf.	*	NO	Yearly from October to April	IM
Japanese encephalitis	JE	Ixiaro	YES	2 doses 28 days apart to be completed 1 week at least prior exposure	IM
Pneumococcal Infection Conjugate vaccine	Pneu-C	Prevnar-13	NO	For Adult :One dose	IM
Pneumococcal Infection Polysaccharide Vaccine	Pneu-P-23	Pneumovax-23	NO	At age 65 or prior for patients with risk factors	IM or SC
Rabies	Rab	Imovax Rabies RabAvert	YES	Pre-exposure and post exposure	IM
Tuberculosis	BCG	BCG (Bacillus-Calmette Guerin)	YES	Not available in Canada	
Typhoid	Typh-I	Typherix Typhim Vi (I)	YES	One dose at least 2 weeks prior departure in endemic country	IM
Yellow Fever (available at designated YF clinic)	YF	YF-Vax	YES	One dose and one booster 10 years later	SC
Varicella (chickenpox)		Varilrix, Varivax III	Yes	Schedule 2 doses (interval depends on age)	SC
Haemophilus Influenza Type B	Hib	Act-HIB	No	varies by age at first dose	IM
Meningitis	Multiple Products and Schedules :Refer to National Advisory Committee for Immunization				

\*Agriflu;Fluad;Fluad Pediatric;Fluviral Tetra;FluMist;Fluviral;Fluzone;Fluzone High-Dose;Fluzone Quadrivalent;Influvac

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