

PRACTICE RESOURCE: DTaP and Tdap VACCINES

In Canada, diphtheria toxoid and acellular pertussis antigens are only available in combination with other antigens, which can include tetanus toxoid, inactivated poliomyelitis, and *Haemophilus influenzae* Type b, depending on the vaccine formulation. The diphtheria toxoid and acellular pertussis antigen content of different vaccines varies.

VACCINE	FORMULATION	ANTIGENIC COMPOSITION	
		DIPHTHERIA TOXOID (Lf)	ACELLULAR PERTUSSIS ANTIGENS (µg)
Pediaceal®	DTaP-IPV-Hib	15	48
Adacel®	Tdap	2	15.5
Adacel®-Polio	Tdap-IPV	2	15.5

DTaP vs Tdap – What’s the difference?

DTaP vaccines contain a higher concentration of diphtheria toxoid (designated as “D”) and acellular pertussis antigens (designated as “aP”). They are intended for routine immunization of infants and children under 7 years of age.

Tdap vaccines contain a lower concentration of diphtheria toxoid (designated as “d”) and acellular pertussis antigens (designated as “aP”). They are referred to as “reduced” formulations and are intended for catch-up immunization of children 7 years of age and older, adolescents, and adults.

Are DTaP and Tdap interchangeable?

When immunizing infants and children who are under 7 years of age against diphtheria and pertussis, Tdap vaccine should NOT be used in place of DTaP vaccine. Young children require the higher antigenic content of the DTaP formulation to stimulate their immature immune system and generate long-term protective antibody levels. If Tdap vaccine is used to immunize a young child, then that child would not develop a sufficient level of immunity against diphtheria and pertussis.

Tdap vaccines can be administered only as a booster to children 4 years to 6 years of age who have already received the initial doses of DTaP vaccine with its higher antigenic content.

Meanwhile, the lower antigenic content of the Tdap formulation is sufficient to stimulate more mature immune systems, making them appropriate for children who are 7 years of age and older, adolescents, and adults.

Please refer to the [Publicly Funded Immunization Schedules for Ontario](#) for routine and catch-up immunization schedules for infants, children, adolescents and adults.

References: [Canadian Immunization Guide \(CIG\): part 4 – Active Vaccines, Pertussis Vaccine](#), [Product Monograph: Pediaceal \(2012\), Sanofi Pasteur Limited](#), [Product Monograph: Adacel \(2012\), Sanofi Pasteur Limited](#), [Product Monograph: Adacel-Polio \(2013\), Sanofi Pasteur Limited](#).