

Assessing Routine Immunizations for Children

General Guidelines:

- If schedule is interrupted, series does not need to be restarted.
- If doses are given too early (less than minimum interval) they will need to be given again.
- If there is no previous record of immunization, consider the client unimmunized, and start series over.
- Catch-up schedules are selected depending on the age of the client when they received their first dose.
- Assess all previously received doses against this schedule.
- Assess antigens individually to determine doses required.
- Minimum intervals are used to assess vaccine history and for quick catch-up.
- Administer all vaccines for which a client is eligible.
- Select product based on dose required (determined by clients age and previous doses).
- Administer the immunization using products that are the right dose for their current age.
- Consider:
 - What is publicly funded?
 - What may be required under the Immunization of School Pupils Act?
 - What may have been missed for the school program?

Vaccines required for Immunization of School Pupils Act:

- Tetanus, Diphtheria, Polio, Measles, Mumps, Rubella, Pertussis, Meningococcal and Varicella (born 2010 or later)

Age Considerations:

One year: Must be over one year to receive valid dose of Men C and MMR to count towards long term protection.

Four years: Must be over four years to receive four to six year Tdap-IPV (low dose, Adacel/Boostrix-IPV) and must have received three high doses of DTaP-IPV/DTaP-IPV-Hib (primary series of Pediacel). (See Table 1 for details)

Seven years: Only use low dose vaccine (Tdap-IPV/Tdap) to initiate or complete series. (See Table 3 for details)

Dose Considerations:

- Strength is critical when administering tetanus containing vaccines.
- Pediacel (DTaP-IPV-Hib) contains 7 to 10 times more diphtheria and pertussis than Adacel or Boostrix (Tdap-IPV).
- High dose vaccine should be given to all children under age 7 until they have received a minimum of three doses and they are \geq four years old.

Dosage Form/Strength:

Product	Diphtheria Strength	Tetanus Strength	Pertussis Strength	Polio Strength Type 1/2/3
Pediacel	15 Lf	5Lf	20mcg	40/80/32
Adacel/Boosterix	2Lf	5Lf	2.5 mcg	40/80/32

Assessing Immunization for children immunized under 7 years of Age

1. Assess Tetanus, Diphtheria and Pertussis vaccine needs

- Low dose (Tdap or Tdap-IPV) can only be given if child has had three valid high dose vaccines (DTaP-IPV or DTaP-IPV-Hib) **and** is \geq four years old.
- Four or five doses required depending on age at fourth dose.
- Assess polio requirements to determine whether to give Tdap or Tdap-IPV.

Dose	Product	Recommended Interval	Minimum Interval
1 st dose	DTaP-IPV-Hib	\geq 2 months of age	\geq 6 weeks of age
2 nd dose	(<7years) DTaP-IPV-Hib (\geq 7years) Tdap-IPV	2 months after 1 st dose	4 weeks after 1 st dose
3 rd dose	(<7years) DTaP-IPV-Hib (\geq 7years) Tdap	2 months after 2 nd dose	4 weeks after 2 nd dose
4 th dose	(< 4 years) DTaP-IPV-Hib (\geq 4 years) Tdap-IPV	6-12 months after 3 rd dose and \geq 1 year of age	24 weeks after 3 rd dose and \geq 1 year of age
5 th dose	Tdap or Tdap-IPV* *assess polio (5 th dose not required if 4 th dose at age \geq 4 years and valid history of 3 high dose vaccines)	6-12 months after 3 rd dose and \geq 4 years of age	24 weeks after 4 th dose and \geq 4 years of age

2. Assess Polio vaccine needs.

- Only 3 doses of polio are required- 2 doses, 2 months apart (minimum interval 1 month), 3rd dose 6-12 months after 2nd and at least four years of age.
- Additional doses in DTaP-IPV-Hib as per the routine schedule are doses of convenience.

3. Assess Measles, Mumps, Rubella (MMR) and Varicella (Var) vaccine needs

- Two doses of MMR required after one year of age and at least one month apart.
- Two doses varicella required if born in 2010 or later.
- Two doses recommended but not required if born in 2000 or later.
- Combined MMRV can be used if four to 12 years old.
- Live vaccines must be at least 28 days apart or the second dose given is considered invalid.

4. Assess Meningococcal (Men-C-C/Men-C-ACYW135) vaccine needs

- One dose Meningococcal C Conjugate Vaccine (Menjugate/NeisVac) required after one year of age until September of Grade 7.

5. Assessing Pneumococcal conjugate (Pneumo-C-13) vaccine needs

Age 1st dose	Recommended Interval
2-11 months	1 st dose, \geq 2 months old (minimum 6 weeks of age) 2 nd dose, 2 months after 1 st 3 rd dose, 2 months after 2 nd and \geq 1year
12-23 months	2 doses, 2 months apart
24-59 months	1 dose

Assessing Immunization for children immunized over 7 years of Age

1. Assess Tetanus, Diphtheria, Pertussis and Polio vaccine needs

- Only use low dose vaccine (Tdap-IPV/Tdap) to initiate or complete series.

Number of valid DTaP containing vaccines < 7 years*	Recommended schedule
0-1	1 dose Tdap-IPV, 2 months after last DTaP-IPV dose 1 dose Tdap, 2 months after Tdap-IPV 1 dose Tdap-IPV, 6-12 months after Tdap dose
2 doses	1 dose Tdap-IPV, 6-12 months after last DTaP-IPV dose 1 dose Tdap, 6-12 months after Tdap-IPV
3 doses	1 dose Tdap-IPV, 6-12 months after last DTaP-IPV dose
4 doses at < 4 years	1 dose Tdap-IPV

*Valid doses are those given after 6 weeks of age and at least 1 month apart.

2. Assess Measles, Mumps, Rubella (MMR) and Varicella (Var) vaccine needs

- Two doses of MMR required after one year of age and at least one month apart.
- Two doses varicella required if born in 2010 or later.
- Two doses recommended but not required if born in 2000 or later.
- Combined MMRV can be used if four to 12 years old.
- Live vaccines must be at least 28 days apart or the second dose given is considered invalid.
- MMR can be given to children between six and 11 months if high risk (i.e. travel/outbreak). These doses do not count towards required doses.

3. Assess Meningococcal (Men-C-C/Men-C-ACYW135) vaccine needs

- **One year of age until September of Grade 7-** one dose Meningococcal C Conjugate Vaccine (Menjugate/NeisVac) required
- **Grade 7 or later-** one dose Meningococcal ACYW135 Conjugate Vaccine (Menactra) required

4. Assess school program vaccines (Hepatitis B, Human Papillomavirus, Men-C-ACYW135) needs

- **Grade 7 students:** only immunized at schools or in public health clinics
- **Grade 8 or later:** can be immunized at health care provider, schools or public health clinics
 - If a student misses 1 dose in Grade 7 due to absence, Public health will try to provide the missed dose when the student is in grade 8.

School Program Vaccine Eligibility and Schedule

HPV9: All students in Grade 7-12 (born in 2004 or later), Females in gr 7-12 (Born 2004 or earlier)

Schedule: If HPV4 is given at first dose:

2 dose series Healthy students < 14 years of age at first dose. Given at 0 and 6 months.

3 dose series ≥ 14 years of age, immunocompromised or immunocompetent HIV infected. Given at 0, 2 and 6 months.

If HPV 9 is given at first dose:

2 dose series Healthy students < 15 years of age. Given at 0 and 6 months.

3 dose series ≥ 15 years of age, immunocompromised or immunocompetent HIV infected. Given at 0, 2 and 6 months

Hepatitis B: Grade 7-8 (2 dose series, 4 months apart if Recombivax, 6 months apart if Engerix)

Men-C-ACYW135: Grade 7 or born on or after Jan/01/97 (one dose Menactra)

Administering Immunizations for clients with no previous immunization:

(If there is no previous record of immunization, consider the client unimmunized, and start series over.)

Publicly Funded Routine and Catch up Immunization Schedules for Ontario (December 2016)

For further details visit the [Publicly Funded Immunization Schedules for Ontario](#).

Routine Schedule

Age	Vaccine
2 months	DTaP-IPV-Hib, PneuC13, rotavirus
4 months	DTaP-IPV-Hib, PneuC13, rotavirus
6 months	DTaP-IPV-Hib
12 months	MMR, Men C, PneuC13
15 months	Varicella
18 months	DTaP-IPV-Hib
4-6 years	Tdap-IPV, MMRV
Grade 7	Hep B, HPV9, Meningococcal ACYW135
14-16 years	Tdap
24-26 years	Tdap
≥34 years	Td
65 years	Pneumo23, Zoster

Catch-up Schedule 1: Starting Immunization between 1-6 years

Visit	Vaccine
1 st visit	DTaP-IPV-Hib (<7 years), Men C, PneuC13 (<5 years), MMR (<4 years) or MMRV (4-6 years)
2 nd visit (2 months later)	DTaP-IPV-Hib (<7 years) or Tdap-IPV (≥7years), PneumoC13 (<5 years and < 24 months at 1 st visit), Varicella (<4 years at 1 st visit)
3 rd visit (2 months later)	DTaP-IPV-Hib (<7years) or Tdap (≥7years)
4 th visit (6-12 months later)	DTaP-IPV-Hib (<4years) or Tdap-IPV (4-8 years), MMRV (4-8 years)
5 th visit (6-12 months later, only if <4years at 4 th visit)	MMRV Tdap-IPV

Catch up Schedule 2: Starting Immunization between 7-17years

Visit	Vaccine
1 st	Tdap-IPV, Varicella (born on/after Jan1/00) MMR, MMRV (<13years) Men C (until September of Grade 7) or Men ACYW135 (Grade 7 or later)
2 nd (2 months later)	Tdap-IPV, MMRV (<13years), MMR, Varicella (born on/after Jan1/00)
3 rd (6-12 months later)	Tdap-IPV