# Recommended Immunization Schedules for Individuals NOT Previously Immunized

The following schedules do not address all possible scenarios. Catch-up schedules for partially immunized individuals must be created in accordance with the current Canadian Immunization Guide (www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php) and the Vaccines Offered Free-of-Charge (Eligibility Criteria for Publicly-Funded Vaccines) (www.manitoba.ca/health/publichealth/cdc/vaccineeligibility.html). Review of relevant product monographs is strongly recommended.

## Children less than 7 years of age NOT previously immunized as infants

| Vaccine | 1st visit | Time after 1st visit | | | | | 6 - 12 mos. after last dose | 4 - 6 years of age |
|---|---|---|---|---|---|---|---|---|
| | | 4 weeks | 6 weeks | 8 weeks | 4 mos. | 6 mos. | | |
| DTaP-IPV-Hib | ◆ | | | ◆ | ◆ | | ◆ | |
| Tdap-IPV | | | | | | | | (◆) |
| Pneu-C-13 | ◆ | | | (◆) | (◆) | | | |
| Men-C-C | ◆ | | | | | | | |
| Inf | ◆ | (◆) | | | | | | |
| MMR | ◆ | Generally at 4-6 years ◆ | | | | | | |
| Var | (◆) | Generally at 4-6 years (◆) | | | | | | |
| **OR** | | | | | | | | |
| MMRV | (◆) | Generally at 4-6 years (◆) | | | | | | |

() Brackets indicate that these doses may not be required

**Diphtheria - tetanus - acellular pertussis- inactivated polio- *Haemophilus influenzae* type b** (DTaP-IPV-Hib): Four doses required of a DTaP-IPV-containing vaccine. With no DTaP-IPV vaccine available in Canada, DTaP-IPV-Hib is to be used for all doses.

**Tetanus - reduced diphtheria - reduced acellular pertussis- inactivated polio** (Tdap-IPV): The dose at four to six years of age is not required if the fourth dose of DTaP-IPV-Hib vaccine was given after the fourth birthday.

**Pneumococcal conjugate 13-valent** (Pneu-C-13): Two to 11 months of age at first visit – three doses. Twelve to 23 months of age at first visit – two doses. Twenty-four to 59 months of age (fifth birthday) at first visit – one dose. A minimum of eight weeks is required between doses. Those with high risk medical conditions and/or who live in First Nations communities may require an additional dose. For those partially immunized please refer to the Canadian Immunization Guide for the appropriate number of doses required (www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-16-pneumococcal-vaccine.html)

**Meningococcal conjugate monovalent** (Men-C-C): One dose at or after 12 months of age.

**Measles, Mumps, Rubella (MMR)**: MMR can be used if not immunizing against varicella. Two doses are required at least four weeks apart. First dose given at or after 12 months of age and second dose generally given between four to six years of age.

**Varicella** (Var): If susceptible to varicella - Two doses at least three months apart. First dose is given at or after 12 months of age and second dose generally given between four to six years of age. If rapid protection is required, a minimum interval of four weeks may be used. Susceptibility of varicella should be evaluated prior to vaccination (see below for susceptibility considerations).



Manitoba

**Susceptibility and Immunity to Varicella**

(www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-24-varicella-chickenpox-vaccine.html)

Individuals who have ANY of the following are considered immune to varicella:

- documented evidence of immunization with two doses of a varicella-containing vaccine
- laboratory evidence of immunity

If varicella occurred after 2004, a self-reported history or health care provider diagnosis cannot be considered a reliable correlate of immunity because one-dose immunization programs had a marked impact on the prevalence of wild-type varicella. A self-reported history or diagnosis of varicella or herpes zoster by a health care provider is not considered to be acceptable evidence of immunity for:

- immunocompromised individuals

Recipients of a hematopoietic stem cell transplant (HSCT) should be considered susceptible in the post-transplantation period, regardless of a pre-transplant history of vaccination, positive serologic results, or varicella or herpes zoster disease. For the purposes of post-exposure prophylaxis, an immunosuppressed person with a negative antibody test should be considered susceptible.

**Measles, Mumps, Rubella and Varicella** (MMRV): Susceptibility to varicella should be evaluated prior to vaccination (see above). If still susceptible to varicella - two doses at least three months apart. If rapid protection is required, a minimum interval of four weeks may be used. First dose given at or after 12 months of age and second dose generally given between four to six years of age.

**Influenza** (Inf): Recommended annually for children. Children six months to less than nine years of age receiving Inf vaccine for the first time – two doses, at least four weeks apart.

## Children 7 to 17 Years of Age NOT Immunized in Early Childhood

| Vaccine | 1st visit | Time after 1st visit | | | | | 6 - 12 mos. after last dose | 10 years after last dose |
|---|---|---|---|---|---|---|---|---|
| | | 4 weeks | 6 weeks | 8 weeks | 3 mos. | 6 mos. | | |
| Tdap-IPV or Tdap | ◆ | | | ◆ | | | ◆ | ◆ |
| IPV | (◆) | | | (◆) | | | (◆) | |
| Men-C-C | ◆ 7-10 years old | | | | | | | |
| Men-C-C or Men-C-ACYW-135 | ◆ 11-17 years old | | | | | | | |
| HB | ◆ 11-17 years old | (◆) | | | | ◆ | | |
| HPV | ◆ | | | (◆) | | ◆ | | |
| Inf | ◆ (◆) | | | | | | | |
| MMR | ◆ | ◆ | | | | | | |
| Var | (◆) | | | | (◆) | | | |
| **OR** | | | | | | | | |
| MMRV | (◆) 7-12 years old | | | | (◆) | | | |

() Brackets indicate that these doses may not be required

**Tetanus, Diphtheria, acellular pertussis and inactivated polio** (Tdap-IPV) **or Tetanus, diphtheria, and acellular pertussis** (Tdap): If no previous history of tetanus-containing or polio-containing vaccines, the first three doses of the series should be with Tdap-IPV vaccine and the booster dose with Tdap provided in the Grade 8 or 9 school immunization program (13 to 15 years of age). If the series is started after Grade 8 or 9, the Tdap booster dose should be administered 10 years after the last Tdap-IPV dose. Tdap is also recommended for pregnant women in every pregnancy. Optimal timing is between 27 and 32 weeks gestation, although Tdap vaccine may be given at any time during pregnancy.

**Inactivated Polio Vaccine (IPV)**: Only required if already received tetanus and pertussis-containing vaccine series resulting in the need for protection against polio only. Should receive two doses of IPV-containing vaccine, given four to eight weeks apart, followed by a third dose administered six to 12 months after the second dose.

**Meningococcal conjugate type c** (Men-C-C): Those aged seven to 10 years of age and not previously immunized against meningococcal type c: one dose; Meningococcal conjugate quadrivalent vaccine will also be offered as part of the Grade 6 school immunization program. Those born between 1995 and 2007 who missed the Grade 4 school program – one dose.

**Meningococcal conjugate quadrivalent** (Men-C-ACYW-135): Those born during or after January 2008, if not received as part of the Grade 6 school immunization program: one dose. Those aged seven to 10 years of age see Meningococcal conjugate type c.

**Measles, Mumps, Rubella (MMR)**: MMR can be used if not immunizing against varicella (Note: MMRV is not authorized for use in those 13 years of age and older). Two doses are required at least four weeks apart.

**Varicella** (Var): Those seven to 12 years of age – two doses at least three months apart if they have not had any previous varicella immunization and are still susceptible. If rapid protection is required, a minimum interval of four weeks between doses may be used. Those aged 13 to 17 years – two doses six weeks apart. If rapid protection is required, a minimum interval of four weeks may be used. Susceptibility to varicella should be evaluated prior to vaccination (see below for susceptibility considerations).

**Susceptibility and Immunity to Varicella**

(www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-24-varicella-chickenpox-vaccine.html)

Individuals who have ANY of the following are considered immune to varicella:

- documented evidence of immunization with two doses of a varicella-containing vaccine
- laboratory evidence of immunity

If varicella occurred before 2004, a self-reported history or health care provider diagnosis is considered a reliable correlate of immunity for healthy individuals, including pregnant women without significant exposure to varicella.

If varicella occurred after 2004, a self-reported history or health care provider diagnosis cannot be considered a reliable correlate of immunity because one-dose immunization programs had a marked impact on the prevalence of wild-type varicella. A self-reported history or diagnosis of varicella or herpes zoster by a health care provider is not considered to be acceptable evidence of immunity for:

- healthy pregnant women with significant exposure to varicella
- immunocompromised individuals, and

Recipients of a hematopoietic stem cell transplant (HSCT) should be considered susceptible in the post-transplantation period, regardless of a pre-transplant history of vaccination, positive serologic results, or varicella or herpes zoster disease. For the purposes of post-exposure prophylaxis, an immunosuppressed person with a negative antibody test should be considered susceptible.

**Measles, Mumps, Rubella and Varicella** (MMRV): Those seven to 12 years of age – two doses, at least three months apart. If 13 to 17 years of age, separate MMR and V vaccines are to be used as MMRV is only authorized for use in those under 13 years of age. Susceptibility to varicella should be evaluated prior to vaccination (see above for susceptibility considerations). If rapid protection is required, a minimum interval of four weeks between doses may be used.

# Recommended Immunization Schedules for Individuals NOT Previously Immunized

**Hepatitis B** (HB): Those 11 to 17 years of age – two or three doses depending on age at immunization and product used. Those 11 to 16 years of age – two doses of Recombivax HB® 1.0mL at 0, four to six months **OR** Engerix®-B 1.0mL at zero, six months. Those 16 to less than 19 years of age – three doses of Recombivax HB® 0.5ml **OR** Engerix®-B 0.5ml at zero, one, six months.

*Refer to Table 3: Recommended Dosages and Schedules for Hepatitis B-Containing Vaccines of the Canadian Immunization Guide for product-specific recommendations by age/medical condition.*

**Human papillomavirus** (HPV): Those 11 to 14 years of age: preferred two-dose schedule - months zero and six (first visit = month zero). Individuals 15 years of age and older, immunocompromised individuals, and those at increased risk: three doses (months zero, two and six). Please see Eligibility Criteria for Publicly funded Vaccines (www.manitoba.ca/health/publichealth/cdc/vaccineeligibility.html) for the listing of high-risk criteria.

**Influenza** (Inf): recommended annually for all children. Children six months to less than nine years of age receiving Inf vaccine for the first time – two doses, at least four weeks apart. Children nine years of age and older – one dose (regardless of previous influenza immunization history).

## Adults 18 years of age and older, NOT previously immunized

| Vaccine | 1st visit | Time after 1st visit | | | | 6 - 12 mos. after last dose | Every 10 years after last dose |
|---|---|---|---|---|---|---|---|
| | | 4 weeks | 6 weeks | 8 weeks | 6 mos. | | |
| Tdap | ◆ | | | | | | |
| TD | | | | ◆ (after Tdap dose) | | ◆ | ◆ |
| HB | ◆ | ◆ | | | ◆ | | |
| MMR | ◆ | (◆) | | | | | |
| Var | (◆) | (◆) | | | | | |
| Pneu-P-23 | ◆ | | | | | | |
| Men-C-C | ◆ | | | | | | |
| HPV | ◆ | | | ◆ | ◆ | | |
| Inf | | | | ◆ | | | |

() Brackets indicate that these doses may not be required

**Tetanus, Diphtheria and acellular pertussis** (Tdap): If no previous history of any tetanus-containing vaccines, first dose of tetanus vaccine series should be completed with Tdap vaccine, followed by two doses of Td vaccine. If previous history of tetanus vaccines is available but no pertussis-containing vaccine in adulthood, Tdap can be given when the 10 year tetanus booster is due, if known. There is no minimum interval between Td and Tdap. Tdap is also recommended for pregnant women in every pregnancy. Optimal timing is between 27 and 32 weeks gestation, although Tdap vaccine may be given at any time during pregnancy.

**Tetanus and Diphtheria** (Td): If no previous history of any tetanus-containing vaccines, first dose of tetanus vaccine series should be Tdap. Two additional doses of tetanus-containing vaccine (Td) are required (two months after Tdap and then six to 12 months after the last dose). A dose is then given every 10 years after the primary series (three doses of tetanus-containing products) is completed.

**Hepatitis B** (HB): Those born on or after January 1, 1989, who missed the school immunization program: Three-dose schedule – months zero, one and six (first visit = month zero) with at least four weeks between the first and second doses, two months between the second and third doses, and four months between the first and third doses.

*Refer to Table 3: Recommended Dosages and Schedules for Hepatitis B-Containing Vaccines of the Canadian Immunization Guide for product-specific recommendations by age/medical condition.*

# Recommended Immunization Schedules for Individuals NOT Previously Immunized

**Measles, Mumps, Rubella** (MMR): Individuals born during or **after 1985** - two doses, at least four weeks apart. Adults born between **1970 and 1984** – one dose. Exceptions: non-immune health care workers and students – two doses, at least four weeks apart. Adults born **before 1970** can be assumed to have acquired natural immunity to measles and mumps and do not need MMR vaccination. Exceptions: non-immune health care workers - two doses, at least four weeks apart; non-immune students – one dose. Rubella-susceptible adults, regardless of age – one dose.

**Susceptibility and Immunity to Rubella**

Individuals who have one or more of the following are considered immune to rubella. Individuals who do not have ANY of the following are considered susceptible to rubella:

- documented evidence of immunization with a rubella-containing vaccine on or after the first birthday
- a history of laboratory confirmed rubella infection
- laboratory evidence of immunity

**Varicella** (Var): Those born between January 1, 1995 and December 31, 2007, who have not had any previous varicella immunization and are susceptible – two doses at least four weeks apart. Susceptibility to varicella should be evaluated prior to vaccination.

**Susceptibility and Immunity of Varicella**

(www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-24-varicella-chickenpox-vaccine.html)

Individuals who have ANY of the following are considered immune to varicella:

- documented evidence of immunization with two doses of a varicella-containing vaccine
- laboratory evidence of immunity

If varicella occurred before 2004, a self-reported history or health care provider diagnosis is considered a reliable correlate of immunity for healthy individuals, including pregnant women without significant exposure to varicella, and health care workers (HCW) who are currently or have previously been employed in a Canadian health care setting. In general, healthy adults 50 years of age and older, are presumed to be immune to varicella, even if the person does not remember having had chickenpox or herpes zoster.

If varicella occurred after 2004, a self-reported history or health care provider diagnosis cannot be considered a reliable correlate of immunity because one-dose immunization programs had a marked impact on the prevalence of wild-type varicella. A self-reported history or diagnosis of varicella or herpes zoster by a health care provider is not considered to be acceptable evidence of immunity for:

- healthy pregnant women with significant exposure to varicella
- immunocompromised individuals, and
- HCW who are newly hired into the Canadian health care system.

Recipients of a hematopoietic stem cell transplant (HSCT) should be considered susceptible in the post-transplantation period, regardless of a pre-transplant history of vaccination, positive serologic results or varicella or herpes zoster disease. For the purposes of post-exposure prophylaxis, an immunosuppressed person with a negative antibody test should be considered susceptible.

**Pneumococcal polysaccharide 23-valent** (Pneu-P-23): Adults 65 years of age and older, adults with high risk medical conditions, residents of long term care facilities, homeless, and illicit drug users – one dose. A booster dose after five years may be required for those at highest risk. Please see Eligibility Criteria for Publicly-funded Vaccines (www.manitoba.ca/health/publichealth/cdc/vaccineeligibility.html) for the listing of high risk medical conditions and eligibility for a booster dose.

**Meningococcal conjugate monovalent** (Men-C-C): Adults born between 1995 and 2007 who missed the Grade 4 school immunization program – one dose.

**Human papillomavirus** (HPV): Females born on or after January 1, 1997, and males born on or after January 1, 2002 - three-doses - months zero, two and six (first visit = month zero).

**Influenza** (Inf): Recommended for all adults – one dose annually.