



Maternal Tdap vaccination during pregnancy and on-time administration of the infant's own Immunisation Schedule vaccinations are the two key vaccination strategies that can protect infants from pertussis.

Please familiarise yourself with the information in the *Diphtheria, Pertussis* and *Tetanus* chapters in the current *Immunisation Handbook*.

Why offer pertussis vaccination to adults?

Maternal Tdap vaccination during pregnancy is the most important way to protect vulnerable infants against severe pertussis disease and the risk of death.

Tdap vaccination during pregnancy stimulates the mother's immune system to produce antibody protection against pertussis that can pass through the placenta into the growing baby. After the baby is born, these antibodies are expected to protect the newborn against severe pertussis disease for up to three months after birth.

Maternal Tdap vaccination may also reduce the risk that the woman will catch pertussis and pass it to her baby at delivery or during their first year of life.

From 1 July 2020, use of the Tdap vaccine (Boostrix®) gradually replaced the Td vaccine (ADT™ Booster) as the funded vaccine on the Immunisation Schedule for eligible adults. Refer to the question *Do we use Boostrix from the fridge?* below for more eligibility information.

Adults may also request a Tdap booster dose that is not included on the Immunisation Schedule, e.g. they are going to become a new father, they require it for work, or they are planning overseas travel.

- » These Tdap vaccine doses are not funded.
- » Vaccinators must have a prescription or standing order to administer these vaccine doses.
- » The Tdap vaccine stock must come from Healthcare Logistics.

Less evidence is available on the effectiveness of providing pertussis booster vaccination to adults who are around young infants. However, Tdap vaccination may reduce the risk that close contacts will catch pertussis and pass the infection on to the infant.

What vaccine do we offer adults wanting pertussis immunisation?

Boostrix® is the funded tetanus, diphtheria and pertussis vaccine for adults who meet the eligibility criteria.

Boostrix® or Adacel® are the vaccines available for adults who are not eligible to receive a funded Tdap vaccination.

Do we use Boostrix® stock from the fridge?

Boostrix® from ProPharma can only be used for individuals who meet the eligibility criteria:

- » The 11-year-old¹ Tdap Schedule vaccination,
- » Catch-up vaccination for children aged 7 years to under 18 years,¹
- » Women who are pregnant,² anytime during the second or third trimesters of every pregnancy,
- » A primary course of tetanus and diphtheria containing vaccines for adults aged 18 years or older,²
- » A booster tetanus and diphtheria vaccination for adults at 45 years and/or 65 years of age,²
- » A single Tdap vaccination because they are a parent² or primary caregiver² of an infant(s) admitted to a neonatal intensive care unit or special care baby unit for more than 3 days and whose mothers had not received Tdap at least 14 days prior to birth, or

- » Additional Tdap doses because the individual^{1,2} has a medical condition specified on the Pharmaceutical Schedule, i.e. individuals post-haematopoietic stem cell transplantation; post-chemotherapy; pre- or post-splenectomy; pre- or post-solid organ transplantation; on renal dialysis or a severely immunosuppressive regimen, or

- » A tetanus booster vaccination as part of wound management.³
- Important notes:**

1. All children aged under 18 years can receive funded vaccines as per the Immunisation Schedule regardless of their immigration and citizenship status.
2. Adults aged 18 years or older must be eligible to receive publicly funded health and disability services in New Zealand to receive funded vaccines, including women who are pregnant and receiving primary maternity services under the *Section 88 Primary Maternity Services Notice 2007*.
3. No Immunisation Subsidy can be claimed from the Ministry of Health. Vaccine stock comes from ProPharma at no cost to the provider and vaccine administration is covered by the relevant ACC payment(s).

When clinically indicated, ACC covers the administration of Tdap as part of wound management for children aged 7 years or older, adults living in NZ regardless of their immigration and citizenship status, and most adult visitors to NZ.

For adults who are not eligible to receive funded Tdap vaccination, either Boostrix® or Adacel® ordered from Healthcare Logistics are used. Vaccinators must have a prescription or standing order to administer these vaccine doses.

Can we claim a subsidy or charge an administration fee for giving a Tdap vaccination?

Vaccinators can claim an Immunisation Subsidy when Tdap is given to an individual who meets the eligibility criteria, except tetanus booster vaccination as part of wound management, described in the Pharmaceutical Schedule.

Vaccinators cannot claim a Subsidy for administering a non-funded Tdap vaccination. Many practices charge the patient a vaccine administration fee as well as the cost of the vaccine.

Is there a pertussis only vaccine?

No. Pertussis only comes in combination with diphtheria and tetanus, i.e. Tdap for adults.

What if the person has recently had Td?

There is no minimum interval between a previous Td (ADT™ Booster) immunisation and a subsequent Tdap immunisation (except when the vaccine doses are being given as part of a primary course catch-up).

However, adults who have already received a Td (ADT Booster) vaccine for their 45-years or 65-years immunisation event are not eligible to be revaccinated with a funded Tdap.

How many doses of Tdap do we give adults to boost pertussis protection?

One Tdap vaccination is expected to boost existing pertussis immunity in most adults, irrespective of vaccination history. While protection against pertussis is expected to wane over the 4–6 years after vaccination, Tdap doses to boost pertussis protection are not recommended more frequently than 10-yearly.

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How often do we give Tdap doses?

Primary course

- » Tdap can be used to provide a primary course of three tetanus, diphtheria, and pertussis-containing vaccines from 7 years of age.
- » The minimum interval between each dose is 4 weeks (28 days).
- » There is no flexibility to give a dose less than 28 days after a previous dose, i.e. the "four-day early" rule does not apply.

Booster dose on the Immunisation Schedule

- » The adolescent Tdap booster dose is given at 11-years/in year 7.
- » In adolescents aged under 18 years who receive catch-up doses of Tdap to complete a primary course, the booster Tdap dose is given a minimum of 6 months after the third primary dose.
- » Women who are pregnant, one booster Tdap dose is given during the second or third trimester of every pregnancy regardless of the interval since the previous dose of Td or Tdap.
- » Adult Tdap boosters are given from 45 years (who have not had 4 previous tetanus doses) and from 65 years.
 - » Practices are recommended to have recall systems in place to notify/remind adults that they are due to receive a funded tetanus, diphtheria, and pertussis booster immunisation.

Booster dose as part of wound management

- » Tetanus-prone wound
 - » Administer one booster dose of Tdap if it is five or more years since the individual's last tetanus-containing vaccine dose.
- » Clean minor wound
 - » Administer one booster dose of Tdap if it is 10 or more years since the individual's last tetanus-containing vaccine dose.

Please refer to section 19.5.6 and Table 19.2 in the current *Immunisation Handbook* for more information.

Important notes:

- » No Immunisation Subsidy can be claimed from the Ministry of Health. Vaccine stock comes from ProPharma at no cost to the provider and vaccine administration is covered by the relevant ACC payment(s).
- » When clinically indicated, ACC covers the administration of Tdap as part of wound management for children aged 7 years or older, adults living in NZ regardless of their immigration and citizenship status, and most adult visitors to NZ.

Booster dose for another reason

For example, close contact with an infant, prior to travel.

- » Booster doses of Tdap are not recommended more frequently than 10-yearly.

Can we give Tdap to a woman who is pregnant?

Yes. One dose of Tdap vaccine is funded for women who are pregnant, anytime during the second or third trimesters of every pregnancy regardless of the interval since the previous Td or Tdap dose (except when the vaccine doses are being given as part of a primary course/catch-up).

Administration of Tdap early in the second trimester of every pregnancy, recommended from 16 weeks of pregnancy, allows time for the woman's immune system to produce antibody protection against pertussis. It also ensures there is enough time before birth for the antibodies to pass through the placenta into the growing baby.

Can we give Tdap to a woman who is breastfeeding?

Yes. Tdap is safe for the breastfeeding woman and her baby.

Can Tdap be given after exposure to pertussis to prevent the person contracting the disease?

No. Tdap will not prevent disease if there has been recent exposure. Certain antibiotics can be used to reduce the effect of pertussis or to reduce the risk of spread of the disease if commenced early in the illness.

What if the adult had pertussis disease or pertussis immunisations as a child?

Neither pertussis disease nor immunisation provides lifelong immunity. A pertussis immunisation is expected to boost immunity in these people.

What about children and adolescents who are behind with their immunisations?

It is important that children, particularly siblings of young babies, are up to date with their immunisations. Please refer to the age-appropriate catch-up guide in Appendix 2 of the current *Immunisation Handbook* when planning a catch-up schedule.

Either Infanrix®-hexa (DTaP-IPV-HepB/Hib) or Infanrix®-IPV (DTaP-IPV) can be used for children aged under 10 years. Boostrix® (Tdap) can be used for children from 7 years of age and adults.[#]

Vaccine choice will be determined by the antigens required and parental consent.

[#] Boostrix® is not approved for use in a primary course. However, no safety concerns are expected with off-label use.

References

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