

Why Tdap Vaccination in Pregnancy Became a Public Health Priority in the US



How does pertussis affect infants?

In 2024, there were **>35,000 reported cases** of pertussis in United States¹

One in three infants aged <12 months with pertussis require hospitalization;² of whom **~1 in 100 die**²

Infants aged **<2 months** are at the highest risk of severe pertussis-associated complications and are too young to be vaccinated^{3,4}

Yet **immunization rate remains low**; only 59.6% of pregnant individuals received Tdap vaccine⁵

Protection of infants from pertussis through Tdap vaccination during pregnancy

Tdap vaccination during pregnancy focuses on preventing pertussis infection/complications in the infant during the time of highest vulnerability, the first few months of life.⁴ This benefit continues through the infant's first year of life.⁶

Wider benefits of vaccinating pregnant individuals against pertussis



Pregnant individuals: Provides **direct protection** to the vaccinated individual⁴



Young infants: **Reduces** the risk of **secondary transmission** to the **newborn**⁴
Antibody protection during the **first few months** of life⁶



Infants: Provides continued protection throughout the first year of life, in addition to their pertussis vaccination series⁶
Reduces risk of pertussis disease, hospitalizations, and deaths⁷

Tdap vaccination during pregnancy prevented

~ 14.5 cases per 100,000 infants per year⁸

~ 1,400–4,300 infant hospitalization⁹

~ 82–170 infant deaths⁹

Tdap vaccination during pregnancy is recommended by the CDC and ACOG:¹⁰⁻¹²



During the **27th through 36th week** of each pregnancy, to maximize neonatal antibody acquisition (and ideally, at least 2 weeks before delivery¹³)

Evidence supporting safety of Tdap vaccination during pregnancy



Tdap vaccination is **well tolerated** by the pregnant individual, with **similar safety profiles** in vaccinated and unvaccinated pregnancies,^{7, 14, 15} and no specific safety concerns identified in neonates^{7, 14, 15}

Evidence supporting the effectiveness of Tdap vaccination in disease prevention

A review of studies in infants aged 0–3 months demonstrated high vaccine effectiveness, including protection against:⁷

0% Pertussis-associated hospitalizations: **91–94%** 100%

0% Deaths due to pertussis: **95%** 100%

Strategies to prevent pertussis in pregnancy and early infancy

- Recommend Tdap vaccination during prenatal care visits (this is critical for facilitating vaccination in pregnancy)
- Address any queries and concerns to facilitate informed choices for the patient
- Communicate the benefits of Tdap vaccination for maternal and neonatal health



Protect infants against pertussis

Severe pertussis epidemics led to vaccination-in-pregnancy recommendations, which have demonstrated protection against pertussis associated infant morbidity and mortality

Abbreviations

ACOG, American College of Obstetricians and Gynecologists; CDC, Centers for Disease Control and Prevention; Tdap, Tetanus, Diphtheria, and Pertussis

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