



## ACOG Tetanus, Diphtheria, and Pertussis FAQs for Providers

### What is the Tdap vaccine?

Tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) is a combination vaccine that protects against three bacterial infections in a single injection.

The three vaccine components are tetanus (T), diphtheria (d) and acellular pertussis (ap). The uppercase letter 'T' refers to a standard dose of antigen, whereas the lowercase letters 'd' and 'p' are used to indicate a reduced dose of diphtheria and pertussis (also called whooping cough) antigens used in the vaccine given to adolescents and adults, compared with the pediatric vaccine (DTaP).

There is no separate pertussis-only vaccine commercially available in the United States. The Tdap vaccine does not have a live component because it is manufactured using inactivated noninfectious bacterial products that generate a robust immune response. This vaccine has been recommended since 2006 for adolescents and adults.

### Has Tdap vaccine been given to pregnant and postpartum women in the past and if so why?

Yes. Since 2006, Tdap vaccination has been recommended as a strategy to prevent pertussis infections in newborns and infants who are too young to receive their own vaccines. Initially, a dose of Tdap vaccine was recommended for any previously unvaccinated postpartum woman and all household members who would come into contact with a newborn. This policy, called "cocooning," aims to protect vulnerable infants from pertussis exposure by ensuring immunization in caregivers and household contacts.

In June 2011, the Advisory Committee on Immunization (ACIP) of the Centers for Disease Control and Prevention recommended that pregnant women receive Tdap vaccination during the second half of pregnancy. Since that recommendation was published, many pregnant women have begun to receive the Tdap vaccine during pregnancy. There is also now a growing body of literature further demonstrating the safety and effectiveness of this approach for protecting newborns against pertussis.

### Why is it necessary to vaccinate pregnant women during each pregnancy?

In October 2012, ACIP reviewed critical new data on the lack of persistence of maternal pertussis antibodies and found rapid waning of antibody levels 2-3 years after vaccination. This indicated that maternal antibodies from the Tdap vaccine that are generated during one pregnancy would be insufficient to provide protection during subsequent pregnancies. Based on these important findings, the ACIP recommended that pregnancy women be immunized during each pregnancy to ensure that every newborn received the highest possible concentration of antibody at birth and, therefore, would be more likely to have protection during the first few months of life. The revised and current

recommendation is that all pregnant women receive the Tdap vaccine during each pregnancy, regardless of the interval since the last tetanus toxoid-containing booster, preferably during the 27-36 weeks of gestation. To maximize the maternal antibody response and passive antibody transfer and levels in the newborn, vaccination as early as possible in the 27-36-weeks-of-gestation window is recommended.

**Why was 27-36 weeks of gestation chosen as the preferred time for maternal immunization?**

The last trimester of pregnancy was targeted for maternal immunization in an effort to take advantage of the naturally occurring process of antibody transfer through the placenta during the third trimester. Vaccination at this stage would maximize the antibody transfer to the fetus and, therefore, optimize newborn protection. The protective antibodies that are transferred to the fetus protect the newborn until he or she begins his or her own vaccine series (recommended to start at approximately 2 months of age).

**Is there an optimal time during the 27-36-weeks-of-gestation window to recommend maternal Tdap vaccination?**

Recent data support the optimal time to vaccinate against Tdap is early in the 27-36-weeks-of-gestation window because higher antibody concentrations might be achieved in the fetus with this timing. In order to improve vaccine uptake and practice workflow, consideration should be given to incorporate Tdap vaccination into routine care such as the third trimester glucose screening visit or Rho(D) immune globulin administration (for eligible women who are Rh negative).

**What if a pregnant woman who has never been vaccinated with Tdap does not receive the Tdap vaccine during her pregnancy?**

The optimal strategy is antenatal administration. However, if the Tdap vaccine has not been administered during pregnancy and the woman has never received Tdap as an adolescent or adult, then she should receive a Tdap vaccination postpartum, preferably before discharge after delivery.

**Should a postpartum woman who did not receive the Tdap vaccine during pregnancy but received a dose as an adolescent or adult in the past (as documented in her medical record) be immunized postpartum?**

No. She does not need another Tdap vaccination postpartum. The Tdap vaccine is recommended during each pregnancy (but not during each postpartum period). To maximize antibody transfer and, thus, neonatal protection. Women who have received a Tdap vaccination as adolescents or adults but did not receive one during pregnancy should not receive the vaccination postpartum. For a nonpregnant adult, a single Tdap vaccination received either as an adolescent or adult is currently considered adequate over a lifespan.

**Are there any circumstances in which a woman would receive Tdap earlier than 27-36 weeks of gestation?**

The preferred timing for Tdap vaccination is between 27 weeks and 36 weeks gestation, but the vaccine may be given before 27 weeks gestation in certain circumstances such as during a community outbreak. The Tdap vaccine is considered safe to give at any gestation if indicated. Pregnant women who require a tetanus booster for wound contamination should receive the Tdap vaccine.

**What if a woman requires a tetanus booster, or diphtheria booster, or both during pregnancy for any other reason such as wound care?**

She should receive a single dose of Tdap at that time in place of the tetanus or diphtheria boosters. The Tdap vaccine is considered safe to give, when indicated, at any time during gestation. In this clinical scenario of acute wound management, the need for protection from tetanus supersedes the benefit of administering the vaccine during the 27-36-weeks-of-gestation window.

**What is recommended for a pregnant woman if there is a local outbreak of pertussis in her community?**

She should receive a Tdap immunization as soon as possible. In this clinical scenario, the need for protection from acute pertussis infection supersedes the benefit of administering the vaccine during the 27-36-weeks-of-gestation window. The Tdap vaccine is considered safe to give at any time during pregnancy when indicated. If the woman has been exposed to pertussis, she should be evaluated by her health care provider and also may receive antibiotic chemoprophylaxis. Other family members also should receive Tdap immunization for protection against the local outbreak after consulting with their respective health care providers.

**If a pregnant woman is vaccinated early in her pregnancy (ie, before 27 weeks gestation), does she need to be vaccinated again between 27 weeks and 36 weeks of gestation?**

No. Women should receive one dose of Tdap during each pregnancy.

**Can Tdap and influenza vaccines be given to pregnant women at the same visit?**

Yes. The Tdap and influenza vaccines can be administered at the same visit. Recent studies have shown no serious adverse effects or reduced antibody response when the vaccines were administered at the same time.

**Can Tdap and Rho(D) immune globulin be given to pregnant women at the same visit?**

Yes. In fact, offering Tdap during the same visit that the patient receives Rho(D) immune globulin is a suggested strategy from the American College of Obstetricians and Gynecologists.

**What if a woman becomes pregnant again soon after a pregnancy during which she received the Tdap vaccine?**

According to the current ACIP guidelines, women should receive the Tdap vaccine in each pregnancy. This recommendation stands regardless of the timing of the last Tdap immunization.

**How can we facilitate cocooning for pertussis?**

Regardless of when a woman receives the Tdap vaccine, efforts should be made to ensure that all family members and caregivers who will have close contact with the newborn receive a dose of Tdap if they are not current with vaccination guidelines, in order to provide the protection of cocooning. Health care providers should recommend Tdap vaccination of family members during prenatal care visits and at the time of delivery. Ideally, the pregnant woman should be vaccinated with Tdap during pregnancy and all family members should be vaccinated at least 2 weeks before coming in contact with the newborn.

**Should health care providers continue to offer Tdap as part of routine prepregnancy care?**

No. The Tdap vaccine is no longer recommended during routine prepregnancy visits. The best time to administer the Tdap vaccine is during each pregnancy as early as possible in the 27-36-weeks-of-gestation window. If the Tdap vaccine is administered at a prepregnancy visit (for example, if pertussis is circulating in the patient's community), Tdap should be administered again during pregnancy between 27 weeks and 36 weeks of gestation in order to provide optimal protection to the infant during his or her first months of life.

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