

Vaccinating Pregnant and Postpartum Texas Women for Pertussis

Facts

- **Immunity from pertussis wanes with time.** Studies show that pertussis immunity decreases significantly within one to five years following the last dose of acellular pertussis vaccine. In the United States, the acellular pertussis vaccines have replaced the use of whole-cell pertussis vaccines as part of the childhood series since 1997. An acellular pertussis booster vaccine (Tdap) was licensed in 2005 for use in adolescents and adults. Persons can be susceptible to repeated pertussis infections throughout their lifetime.
- **Pertussis causes serious disease and death in infants** who are too young to have completed their primary immunization series with diphtheria, tetanus, and acellular pertussis vaccine (DTaP), which is given at 2, 4, and 6 months of age.
 - Infants have 20 times the incidence of pertussis than persons in other age groups.
 - Infants also have the highest complication rates. More than half of infected infants will need hospital admission.¹ Of those admitted to a hospital: Half will have apnea, 20 percent will get pneumonia, 1 percent will have seizures, and 1 percent will die.²
 - Pertussis-related deaths occur almost exclusively in infants less than 3 months of age.³
- Although infected mothers and family members are a significant source of pertussis to case infants, infected infants often may not have a clearly identifiable source.^{4,5} Infants may therefore be **best protected from pertussis through maternal vaccination during pregnancy** and passive antibody transfer to the infant.

What You Can Do

Studies show **the most important influence on a person's choice regarding vaccination is his or her physician** or health care provider's recommendation. For example, during the 2012-13 influenza season, pregnant women were much more likely to receive the influenza vaccine if their health care provider both recommended and offered the vaccine.⁶ Unfortunately, Tdap immunization rates during pregnancy were reported to be less than 5 percent in the United States in 2012.⁷

To prevent the spread of pertussis, identifying the disease and immunizing against the disease are critical. The Centers for Disease Control and Prevention (CDC) recommends several immunization strategies to prevent life-threatening pertussis. Your support is essential.

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Providing vaccine to pregnant women and their families:

Major health plans report to the Texas Medical Association that they provide coverage for Tdap administration, according to Advisory Committee on Immunization Practices recommendations. Contact health plans directly for specific information.

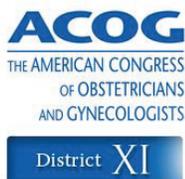
Texas Medicaid offers pertussis vaccine as a benefit for pregnant women and their babies.¹⁰

CHIP and CHIP Perinatal programs also cover Tdap vaccination for members during pregnancy.¹¹

The American College of Obstetricians and Gynecologists also provides a coding guide, **Immunization Coding for Obstetrician-Gynecologists 2013**.¹²

Refer uninsured persons to your local health department.¹³ Or, they can call 2-1-1, the statewide health and human services help line.

For additional information on identifying immunization services for uninsured Texans, **contact the Texas Department of State Health Services Immunization Hotline at (800) 252-9152.**



More Information for Physicians

Texas Medical Association

Committee on Infectious Diseases
(800) 880-1300

Local Health Department

Find a full-service local health department or a Texas Health Service Region.¹⁸

Texas Department of State Health Services

Lisa Cornelius MD, MPH
Infectious Diseases Medical Officer
(512) 776-6309

Centers for Disease Control and Prevention

Pertussis (Whooping Cough) webpage¹⁹

American College of Obstetricians and Gynecologists

www.immunizationforwomen.org
immunization@acog.org



Immunize pregnant women and their family.

Immunization in pregnancy is recommended to ensure that pregnant women have high levels of antibodies to pass to their newborn infants.^{8,9} These antibodies are transferred to the baby in the third trimester of pregnancy to ensure newborns have high levels of protective antibodies at birth. The antibodies should persist until infants receive their own immunization series. **Tdap vaccination is safe during pregnancy.**

Because studies have shown pertussis antibody levels wane quickly after immunization, CDC recommends pregnant women receive the pertussis vaccine (Tdap) during **weeks 27-36 of every pregnancy**, even if the mother received Tdap prior to the pregnancy or during previous pregnancies. While Tdap vaccine is safe to be given at any time during pregnancy, vaccinating during 27-36 weeks is optimal, to maximize antibody transfer across the placenta to the baby.

Women who did not receive Tdap during pregnancy and who have not previously received it **should receive Tdap postpartum** before they leave the birthing center.

If you are unsure of the mother's history of Tdap vaccination or if it is undocumented, **you should give the mother Tdap.**

Immunize family members and others who anticipate having close contact with an infant less than 1 year old if they have not previously received Tdap. These adolescents and adults should ideally receive Tdap at least two weeks before beginning close contact with the infant.

Identify pertussis.

Be on the alert for pertussis in your patients. The disease may appear mild or be atypical, especially in adolescents and adults. PCR assay is a preferred method of pertussis testing. PCR assays are quick and widely available at hospital and commercial laboratories. CDC has more information on PCR testing.¹⁵

Treat pertussis. Antibiotic treatment should be initiated once a pertussis diagnosis is suspected or a positive pertussis PCR test result is obtained.¹⁶ Antibiotic treatment may not affect the course of the symptoms, but **it will reduce the spread.** Antibiotic prophylaxis of close contacts of a pertussis case is also recommended, regardless of prior pertussis immunization status.

Report pertussis. Physicians, hospitals, laboratories, schools, childcare facilities, and others are required to report patients suspected of having pertussis. Submit pertussis reports to your local health department¹⁷ or at (800) 705-8868.

1. CDC. Clinical complications. Accessed at www.cdc.gov/pertussis/clinical/complications.html.
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3. Tanaka M, Vitek CR, Pascual FB, Bisgard KM, Tate JE, Murphy TV. Trends in pertussis among infants in the United States, 1980-1999. *JAMA*. 2003;290:2968-75
4. Bisgard KM, Pascual FB, Ehresmann KR, et al. Infant pertussis: who was the source? *Pediatr Infect Dis J*. 2004; 23(11): 985-9.
5. Wendelboe AM, Njamkepo E, Bourillon A, et al. Transmission of *Bordetella pertussis* to young infants. *Pediatr Infect Dis J*. 2007;26:293-99.
6. CDC. Influenza vaccination coverage among pregnant women—United States, 2012-13 influenza season. *MMWR Wkly*. 2013; 62(38); 787-792.
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8. Ibid.
9. ACOG committee opinion no. 566: Update on immunization and pregnancy: tetanus, diphtheria, and pertussis vaccination. 2013; 121(6): 1411-4.
10. HHSC. Reminder: DTaP and Tdap vaccines are benefits of Texas Medicaid and available through TVFC. <http://www.hhsc.state.tx.us/medicaid/mco-resource-docs/2013-43.pdf>
11. HHSC. CHIP and CHIP Perinatal Immunization-related Requirements. <http://www.hhsc.state.tx.us/medicaid/mco-resource-docs/2013-37.pdf>.
12. ACOG. Immunization coding. <http://www.immunizationforwomen.org/site/assets/docs/Imm%20Coding%20Guide%20Final.pdf>.
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15. CDC. Best Practices for Health Care Professionals on the use of Polymerase Chain Reaction (PCR) for Diagnosing Pertussis. www.cdc.gov/pertussis/clinical/downloads/diagnosis-pcr-bestpractices.pdf. Accessed Sept. 23, 2013.
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19. CDC. Pertussis (Whooping Cough). www.cdc.gov/pertussis/index.html. Accessed Sept. 23, 2013.



Physicians Caring for Texans