



- Pertussis on the Rise
- Signs and Symptoms of Pertussis
- Congratulations to the 2012 Immunization Award Winners
- Tasia Sheppard receives 7th Annual Clay Coleman Excellence in Customer Service Award
- Guide to Pertussis
- Did you Know?
- Health Professionals: Guidance for Pertussis Diagnosis, Control and Prevention
- At a Glance: Pertussis Vaccination
- Save the Date

## ! Pertussis on the Rise

In 2012, the U.S. experienced its worst year for pertussis in more than five decades. Over 37,000 cases were reported nationally—more than twice the number seen the previous year. Pertussis incidence in Georgia showed similar trends, with an estimated 300 cases reported in 2012, compared to 180 cases reported in 2011.

Pertussis, also known as whooping cough, is a respiratory illness easily spread by coughing and sneezing. It can affect people of all ages, but is most serious in infants, especially those too young to be vaccinated or those who have not yet completed the primary series of vaccines. The illness typically begins with cold-like symptoms followed by a prolonged, often paroxysmal cough. Pertussis is well known for a characteristic “whooping” sound which can occur when patients take a deep breath after a coughing episode, but this sound is not always present. Infants are often too small and weak to generate this characteristic sound, and adolescents and adults typically get a milder form of the disease, often not realizing they have pertussis. ●

## ! Signs and Symptoms of Pertussis

Knowledge of the signs, symptoms and stages of pertussis can play a vital role in identifying the disease and preventing its spread.

The period between exposure to pertussis and onset of illness (incubation period) is usually 7 to 10 days but may be as long as 21 days. The incubation period is followed by three stages:

**Catarrhal stage:** Pertussis begins with cold-like symptoms (coryza, sneezing, occasional cough). Fever is absent or minimal. This stage lasts approximately 1 to 2 weeks with cough gradually becoming more severe. A person is most infectious during this first stage.

**Paroxysmal stage:** This stage lasts approximately 1 to 6 weeks with spasms of severe coughing followed by a deep inspiration, often resulting in a characteristic “whooping” sound and/or post-tussive vomiting. **Infants less than 6 months of age, adolescents and adults often may not have the typical “whoop.”** Illness is often milder in those previously vaccinated and adults. A person remains infectious for approximately 21 days during this phase.

Infants may present signs and symptoms differently. They may have a shorter catarrhal stage; may gag, gasp or stop breathing (apnea) and turn “blue”; and may not have a noticeable cough or “whoop.”

**Convalescent stage:** During this stage, the frequency and severity of coughing decreases, although bouts of coughing may recur with subsequent respiratory infections. This stage may last weeks to months. ●





## Congratulations to the 2012 Immunization Award Winners

The Georgia Department of Public Health (DPH) announced the winners of the 2012 Walt Orenstein Champions for Immunization on Sept. 13, 2012 at the 19th Annual Immunize Georgia Conference held in Macon, Georgia.

The Walt Orenstein Champions for Immunization Award, named after Walt Orenstein, M.D., honors those who exemplify a standard in immunization care set forth in the Standards for Child Adolescent and Adult Immunization Practices. These standards are a national strategy to protect America's children against vaccine-preventable diseases and provide guidelines and resources to follow when providing immunizations. Dr. Orenstein achieved the highest immunization levels ever in the United States during his tenure of 26 years with the Centers for Disease Control and Prevention focusing on infectious disease and immunizations. He later worked as the

deputy director for vaccine-preventable diseases at the Bill and Melinda Gates Foundation, but returned to Atlanta to renew his appointment as professor of medicine in the Department of Medicine at Emory University and serve as associate director of the Emory Vaccine.

This year, DPH was honored to have Dr. Orenstein as both a speaker and a presenter for the 2012 Immunization Awards.

The 2012 recipients of the Walt Orenstein Champions for Immunization Award

- Fayette County Health Department
- Pediatric Associates of Savannah
- Amy Carroll, Nurse Manager of Catoosa County Health Department



▲ Raquel West and Michael DeMauro, M.D. representing Pediatric Associates of Savannah with Walt Orenstein, M.D.



▲ Stacy Henderson, RN from Catoosa County Health Department, accepting on behalf of Amy Carroll with Walt Orenstein, M.D.



▶ Donna Jane Corona representing Fayette County Health Department with Walt Orenstein, M.D.



▲ Tasia Sheppard with Clay Coleman accepting the Clay Coleman Excellence in Customer Service Award



## Tasia Sheppard receives 7th Annual Clay Coleman Excellence in Customer Service Award

A role model for providing excellent customer service, the 2012 recipient of the Clay Coleman Excellence in Customer Service Award was Tasia Sheppard. The Clay Coleman Excellence in Customer Service Award is named for Clay Coleman, who received the Service Excellence Award from the Georgia Immunization Program for his commitment to provide exceptional customer service for the program from 1993 to 2006. The Award is presented to a Georgia Immunization Program employee who exhibits excellent customer service.

# Truth & Consequences



A publication of the Georgia Department of Public Health

## Guide to Pertussis



### What is pertussis?

Pertussis, or whooping cough, is an infectious disease caused by the bacterium *Bordetella pertussis*.

### What are the signs and symptoms of pertussis?

Pertussis typically begins with mild upper respiratory tract symptoms of runny nose, sneezing and a mild cough (catarrhal stage). After 1 to 2 weeks, the cough becomes severe as noted by the following:

- The cough occurs in sudden, uncontrollable bursts (paroxysms) where one cough follows the next without a break for breath (paroxysmal stage).
- Many children will make a high-pitched “whooping” sound when breathing in after a coughing episode.  
**Infants less than 6 months of age, adolescents and adults often may not have the typical “whoop.”**
- Vomiting may occur during a coughing spell.
- Face or lips may look blue from lack of oxygen.
- The cough is often worse at night.
- Between coughing spells, the person seems well, but the illness is exhausting over time.
- Coughing episodes gradually become less frequent, but may continue for several weeks or months until the lungs heal (convalescent stage).
- **Apnea and/or difficulty feeding frequently occurs in young infants and may be the sole manifestation of early stage pertussis in this age group.**



Adults and persons completing some or all of the recommended vaccinations for pertussis may still get pertussis disease but will generally have a milder illness.

### What are the complications of pertussis?

Pertussis in infants is often severe, and infants are more likely than older children or adults to develop complications. The most common complication of pertussis is bacterial pneumonia. Rare complications include seizures, encephalopathy (inflammation of the brain) and death.

### Who gets pertussis?

Anyone of any age can get pertussis. The disease is most commonly recognized in infants less than 12 months of age. However, adolescents and adults account for more than half of reported cases. Older children and adults usually have less severe illness, but they can still spread the disease to infants.

### How is pertussis spread?

Pertussis is transmitted person-to-person by droplets produced from a cough or sneeze, or by direct contact with secretions from the respiratory tract of an infected person.

Pertussis is highly contagious, with 80 percent secondary attack rates among susceptible household contacts.

The period between exposure to pertussis and onset of illness is usually 7 to 10 days but may be as long as 21 days.





## When and for how long can a person spread pertussis?

Pertussis is highly contagious. Persons are considered infectious from the onset of cold-like symptoms (catarrhal stage) until after 5 days of appropriate antibiotic treatment or until 21 days after cough onset if no (or partial) treatment is given.

## Is there a lab test for pertussis?

To confirm pertussis, a health care provider should obtain a nasopharyngeal (NP) swab or nasal aspirate sample for culture and/or polymerase chain reaction (PCR) testing.

**Direct fluorescent antibody tests on smears and serologic testing for pertussis antibody are not recommended.**



Scan the QR code to watch Dr. Jessica Tuttle, medical epidemiologist for the Georgia Department of Public Health, demonstrate how to collect a nasopharyngeal (NP) swab specimen for testing.

## Can pertussis be treated?

Although the symptoms of pertussis are usually not alleviated by antibiotics, treatment will reduce the spread of disease to others by limiting the patient's contagiousness.

Antibiotics lessen the symptoms if given during the early stages of illness. When antibiotics are started later in the illness, the damage from pertussis is already done and the cough will last until the lungs heal. Pertussis bacteria die off naturally after 3 weeks of coughing.

Post-exposure antibiotics are also recommended for close contacts of persons with pertussis, **regardless of age and vaccination status**, to prevent or lessen symptoms.

## Is there a vaccine for pertussis?

There are vaccines for infants, children, teens and adults. DTap is the childhood vaccine, and Tdap is the pertussis booster vaccine for adolescents and adults. One should consult their health care provider about getting vaccinated against pertussis. (See At a Glance: Pertussis Vaccination for age-specific vaccination recommendations on page 5)



## Can a vaccinated person get pertussis?

Pertussis vaccines are very effective in protecting against disease but no vaccine is 100 percent effective. If pertussis is circulating in the community, there is a chance that a fully vaccinated person, of any age, can catch the disease. If a person has been vaccinated, the infection is usually less severe.

## How can pertussis be prevented?

The best way to prevent pertussis is to get vaccinated.

## ? Did you KNOW? Pertussis Facts

- ✓ Children usually contract pertussis from an undiagnosed household member (such as older sibling or parent).
- ✓ Pertussis occurs in cycles with peaks every 3 to 5 years
- ✓ Infants have the highest rates of pertussis-related death.
- ✓ Pertussis is underreported. While 27,550 cases of whooping cough were reported to CDC in 2010, experts estimate that the true number may actually be one to three million cases annually.
- ✓ Coughing fits due to pertussis infection can last for up to 10 weeks or more. It is sometimes known as the "100 day cough."

# ! Health Professionals: Guidance for Pertussis Diagnosis, Control and Prevention

Rapid recognition of cases, laboratory testing and protection of close contacts are key components for reducing the transmission of pertussis. The Georgia Department of Public Health offers the following guidance for pertussis control and prevention for health professionals:

1. Consider the diagnosis of pertussis in patients with cough illness regardless of age and vaccination history.
2. Pertussis may present with atypical signs and symptoms. In young infants, pertussis may include cold-like symptoms followed by feeding difficulties, gagging and apnea rather than a cough or whoop. In adolescents and adults, pertussis may present as a non-specific cough illness difficult to distinguish from bronchitis or asthma. The whoop may be absent in adolescents and adults.
3. Please notify your local health department or call 1-866-PUB-HLTH if you suspect a case of pertussis (**do not wait for lab results before notifying public health**).
4. The best diagnostic tests for pertussis are culture **AND** polymerase chain reaction (PCR) of nasopharyngeal specimens. Both tests should be obtained whenever possible.



Scan the QR code to watch Dr. Jessica Tuttle, medical epidemiologist for the Georgia Department of Public Health, demonstrate how to collect a nasopharyngeal (NP) swab specimen for testing.

5. Treatment of pertussis, as well as chemoprophylaxis of close contacts, should start immediately upon suspicion of pertussis, regardless of age or vaccination status.
6. Assess the pertussis vaccination status of close contacts. Georgia Department of Public Health recommends use of DTaP to catch-up or Tdap to boost contacts of pertussis cases.
7. Patients with pertussis should stay home from school, work or other activities to limit exposure of others until they have completed five full days of appropriate antimicrobial treatment.

For questions please contact your local health department or the Georgia Department of Public Health at 404-657-2588.

For more information on pertussis, visit <http://health.state.ga.us/epi/vpd/pertussis.asp>.

## At a Glance: Pertussis Vaccination

- A five dose series of DTaP vaccine is recommended for children – the first four doses at 2,4,6 and 15 to 18 months of age, and the fifth dose between 4 and 6 years of age.
- Children 7 to 10 years old who have not completed the five dose DTaP series are not fully vaccinated against pertussis and should receive a single dose of Tdap. Children who have never received any doses, or children whose vaccination history is unknown, should receive a series of three vaccinations containing tetanus and diphtheria toxoids: one of these should be Tdap.
- Adolescents 11 to 12 years old should receive a one-time Tdap vaccination, usually given at their pre-adolescent check-up.
- Adolescents 13 to 18 years old who missed their Tdap vaccination should get it the next time they see their health care provider.
- Adults 19 through 64 years of age should receive a Tdap vaccination if they have not received one. This is especially important if they will be in contact with infants younger than one.
- Adults 65 years and older who have or anticipate having close contact with an infant younger than 1 year of age should receive a Tdap vaccination, should all other adults who wish to protect against pertussis.
- Pregnant women who have not received a Tdap vaccination should receive Tdap in the late second or third trimester for each pregnancy irrespective of past history of Tdap receipt.  
Women who do not receive Tdap during pregnancy should get their Tdap vaccination right after delivery.

Recent vaccination with Td is not a contraindication for receiving Tdap. Anyone eligible for Tdap vaccine can be vaccinated regardless of when a previous Td vaccine was received. ●



**Immunize** Georgia

c/o GolinHarris

1545 Peachtree Street NE, Suite 260

Atlanta, Georgia 30309



Georgia Department of Public Health presents the  
20TH ANNUAL

**Immunize**  
Georgia  
CONFERENCE



For information, call **404.367.2766**  
or email [immunizegeorgia@golinharris.com](mailto:immunizegeorgia@golinharris.com)