

Pertussis (Whooping Cough)

Why is Pertussis Important?

Pertussis is a highly contagious respiratory disease that affects people of all ages, but it can be very serious, even deadly, for infants less than 12 months old. About half of infants with pertussis are hospitalized. The best way to prevent pertussis and protect the entire community from getting pertussis and transmitting to infants is timely clinical care, including timely vaccinations, early testing and treatment of pertussis, and quickly reporting to Public Health.

Pertussis Overview

Communicability

- Untreated: 21 days after cough onset.
- Treated: 5 days after start of appropriate antibiotics.
- Secondary attack rate: 70–100% for susceptible household contacts – *provide antibiotic prophylaxis.*

Testing

- PCR is the best test for timely diagnosis. Test for pertussis even if other URIs suspected, including non-specific bronchitis, RSV and croup.
See [specimen collection.](#)

Treatment

- *See [appropriate antibiotic guidelines.](#)*

Clinical Presentation

- Varies by age and immunization status.

Prevention

- Best prevention is timely vaccination.
See [vaccine schedule.](#)

Clinical Stages

Catarrhal Stage: 1-2 weeks

- Symptoms like the common cold – coryza, sneezing, and a mild, occasional cough. Most infectious stage – test and treat early!

Paroxysmal Stage: 1-6 weeks

- Paroxysms: Repeated coughing episodes without inhalation
- High-pitched inspiratory whoop
- Post-tussive vomiting or gagging

Convalescent Stage: May last weeks/months

- Gradual recovery

Atypical Symptoms That May Occur:

- Dry cough, coughs more at night, clear sputum

Symptoms by Age

Infants under 6 Months of Age:

May not have noticeable cough or “whoop”. Signs may be present as:

- Apnea
- Absence of whoop
- Cyanosis

Adolescents, Adults, and Vaccinated Children:

- Prolonged hacking/persistent cough and occasional paroxysms
- May present with milder/atypical symptoms if immunized
- Can mimic bronchitis

Report Cases Promptly

Under the California Code of Regulations, medical providers are mandated to report all patients suspected of having pertussis to the local health department within 1 business day.

Do not wait for lab confirmation to report.

Call **888-397-3993** or

Fax a [Confidential Morbidity Report](#) to **888-397-3778**

Laboratory Testing

Perform lab tests for all patients with pertussis-like symptoms, especially if in close contact with a patient with pertussis and regardless of immunization history.

Direct Fluorescent Antibody (DFA) and Serological tests may be used but are not reliable to confirm pertussis. Do not test asymptomatic patients.

- **Specimen Source:** Nasopharyngeal (NP) aspirate or swab from posterior nasopharynx
- **Interpretation:** A negative lab result does not rule out pertussis.

For more details: <https://www.cdc.gov/pertussis/clinical/diagnostic-testing/specimen-collection.html>

Table 1: Laboratory Tests for Pertussis Diagnosis

Test	Timing of specimen collection
PCR	<ul style="list-style-type: none"> • Test within 3-4 weeks of cough onset, before initiating treatment.
Culture	<ul style="list-style-type: none"> • Obtain before starting antibiotics and within 3 weeks of cough onset. • False negatives are common. • May take up to 14 days to result.

The best test is a PCR of nasopharyngeal (NP) aspirate or swab of from posterior naseopharynx.

Treatment

Patient with Pertussis-like Symptoms:

- Provide antibiotics preemptively before lab results are available or immediately stop school/work attendance of patient and wait to treat when lab results are available.
- Once antibiotics are provided, instruct the patient to not attend work or school activities until 5 days of antibiotics are completed.
- Ensure patient is up-to-date with vaccines.

Asymptomatic Patient Exposed to Pertussis:

- All asymptomatic close contacts of a person confirmed to have pertussis should receive treatment/post-exposure prophylaxis (PEP).
- Prioritize PEP for those who are at **high risk** for developing severe pertussis disease or those who are at high risk for transmitting pertussis to high risk persons (e.g., infants, pregnant women, healthcare workers, etc.).
- Recommend vaccination to contacts if not up-to-date with pertussis vaccines.

Strongly consider treating prior to test results.

Recommended antimicrobial agents for treatment of pertussis are the following:

**Azithromycin, Clarithromycin,
Erythromycin and TMP-SMX.**

For more details on appropriate antibiotic dosages for petussis:
www.cdc.gov/mmwr/preview/mmwrhtml/rr5414a1.htm

Protect Infants by Vaccinating Women during Each Pregnancy.

It is important for women to get the Tdap vaccine between **27- 36 weeks** gestation in every pregnancy to protect the infant.

Resources

- Call the Los Angeles County Department of Public Health Vaccine Preventable Disease Control Program at **(213) 351-7800** M-F 8:30am-5:00pm and ask to speak to the Epidemiology Unit or **(213) 974-1234** after business hours or on the weekend.
- http://publichealth.lacounty.gov/ip/VPD_pertussis.htm
- See [Check List for Clinicians: Managing Patients Suspected of Having Pertussis.](#)