



Pertussis Information for School Health Personnel

Introduction

Pertussis, a respiratory illness commonly known as whooping cough, is a very contagious disease caused by a toxin-producing bacterium called *Bordetella pertussis*. These bacteria attach to the cilia that line part of the upper respiratory system and release toxins, which damage the cilia and cause airways to swell. Pertussis is characterized by intermittent spasms of severe cough often lasting several weeks. Pertussis can affect people of all ages, but can be very serious, even deadly, for babies less than a year old.

Mode of Transmission

Pertussis is spread from person to person, usually by coughing or sneezing or when spending a lot of time near one another where you share air space. Many babies who get pertussis are infected by older siblings, parents, or caregivers who might not even know they have the disease. The precise duration and intensity of exposure needed to cause infection is unclear.

Length of Infectiousness

Persons with pertussis are most infectious during the first 2 weeks after cough onset (catarrhal phase), but may continue for longer if untreated. Therefore, cases are considered contagious from symptom onset to 21 or more days after the start of the paroxysmal cough or until completion of appropriate antibiotic therapy.

Treatment

Pertussis is generally treated with a 5-day course of antibiotics. Early treatment is important and can help prevent spreading the disease to close contacts. Close contacts should also receive post-exposure prophylaxis (the same 5-day course of antibiotics used to treat cases of pertussis).

Prevention

There are two acellular pertussis vaccines (DTaP & Tdap) recommended in the United States as part of the child and adolescent vaccination series. While immunity from both the DTaP & Tdap series declines over time, vaccination is still the best tool to provide protection against pertussis. When pertussis circulates in the community, there is a chance that a fully vaccinated person, of any age, can catch this disease. If you have gotten the pertussis vaccine but still get sick, the infection is usually not as bad.

When to report to Clark County Public Health

Report laboratory confirmed or provider diagnosed cases of pertussis to CCPH by calling the Communicable Disease Program at (564) 397-8182.

- **Note:** Cases of *Bordetella parapertussis* (a different bacteria than *B. pertussis*) are not reportable to CCPH. *B. parapertussis* is less common and does not produce the toxin that causes the damage to the respiratory system and therefore generally causes milder symptoms than pertussis.

Incubation Period

7-10 days (up to 3 weeks)

Symptoms: 3 phases

1. **Catarrhal** (1-2 weeks): mild upper respiratory symptoms.
2. **Paroxysmal** (1-6 weeks): spasms of cough end with a gasp, whoop, or vomiting.
3. **Convalescent** (2-6 weeks): gradual resolution of paroxysmal coughing.

Duration of Illness

6 weeks or longer

Diagnosis

- History of signs and symptoms
- Physical examination
- Laboratory test which involves taking a sample of mucus from the back of the throat through the nose.
- Blood test

Immunity

Duration of immunity after natural infection with *B. pertussis* ranges widely from 4-20 years, but does wane over time. Since this immunity fades and does not offer lifelong protection, the CDC still recommends all adults and children be up to date on pertussis vaccination.



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We recommend schools have policies and procedures in place for:

- Tracking and managing staff, student and volunteer vaccination records.
- Excluding staff and students with confirmed pertussis.
- Implementing a parent notification system following an exposure.
- Tracking the number of student and staff absences due to similar symptoms or cause.

What to do when you have pertussis in your school:

- Exclude case(s) from school until they have finished a 5 day course of antibiotic therapy. If case declines antibiotic therapy, the CCPH Communicable Disease program will provide dates of exclusion based on symptom onset.
- If a confirmed case attended school during their infectious period, distribute a notification letter and FAQ sheet to potentially exposed persons (e.g. classroom or whole school). Letter and FAQ templates are available at: <https://www.clark.wa.gov/public-health/schools-child-day-cares>.
 - If you have questions regarding appropriate audiences for distribution of letters and FAQ's, please call CCPH at (564) 397-8182.
- In situations of pertussis outbreaks, consider resending notification letters every 45 days to exposed groups or posting pertussis information on your school website.
- School nurses seeing an increased number of students with a cough illness during a pertussis outbreak should consider using the [Cough Illness Screening Tool](#) to facilitate communication with families and providers.
- Reinforce cough etiquette education and hand hygiene education to reduce the spread of illness in the school.

After cases or outbreaks occur:

- Evaluate your school's response.
- Develop action plans to address identified areas of concern regarding school's readiness and response.
- Don't hesitate to use CCPH as a resource to review outbreak response or support training needs.