



## Pertussis (Whooping Cough) Fact Sheet

### What is pertussis?

Pertussis (whooping cough) is a highly contagious disease involving the respiratory tract. It is caused by a bacterium that is found in the mouth, nose, and throat of an infected person. Approximately 5000 to 7000 cases are typically reported annually in the U.S. It is named after the “whoop” sound some children and adults make when they try to breathe in during or after a severe coughing spell.

### Who gets pertussis?

- Whooping cough (pertussis) can occur at any age, but infants and young children are at highest risk of life-threatening consequences.
- Anyone—particularly infants and young children—who is not immunized is at a higher risk for severe whooping cough.
- Older immunized children or adults with pertussis have milder symptoms.
- The diagnosis of pertussis should be considered for older children or adults with persistent coughs to ensure they do not pass the infection on to young children.

### How is pertussis spread?

- Pertussis is primarily spread when infected people cough or sneeze, expelling droplets that contain *Bordetella pertussis* bacteria.
- It is most contagious during the first two to three weeks of infection, often before the beginning of severe coughing spells.
- Schools and day care centers are also a common source of infection in children
- Older children, adolescents, adults, and parents who may be harboring the disease in their nose or throat can spread the infection to infants and young children in the household.

### What are the symptoms of pertussis?

- Whooping cough usually starts with cold or flu-like symptoms such as runny nose, sneezing, fever and mild cough. These symptoms can last up to two weeks and are followed by increasing severe coughing spells. Fever, if present, is usually mild.
- During a classic cough episode:
  - Signature “whoop” is heard as the patient struggles to breathe
  - Coughs usually produce a thick, productive mucus
  - Vomiting may occur
  - Patient is left exhausted after the coughing spell
- The coughing attacks which are more frequent at night may last for many months in the “classic illness” or just a few days in the mild form of the disease.
- Young children who have not been immunized have the most severe symptoms.
- Infants less than six months of age, adolescents and adults often don’t have the characteristic whoop. Therefore, a person with a cough that lasts more than a week without improvement should see a health care provider to ensure the cough is not pertussis.

**How soon after infection do symptoms appear?**

Symptoms appear between 6 to 21 days (average 7-10 days) after exposure to the pertussis bacteria.

**When and for how long is a person able to spread pertussis?**

A person can transmit pertussis from the beginning of cold-like symptoms until three weeks after the onset of coughing episodes. The period of communicability is reduced to between five and seven days when antibiotic therapy is begun.

**Does past infection with pertussis make a person immune?**

One attack usually provides immunity for many years, but immunity is usually not life-long.

**What are the complications associated with pertussis?**

Pneumonia is the most common complication and cause of infantile pertussis-related deaths. Young infants are at highest risk for pertussis-related complications, including seizures, encephalopathy (swelling of the brain), otitis media (sever ear infection), apneic episodes (brief cessation of breathing), anorexia (severe restriction of food intake) and dehydration. Eighty percent of deaths from pertussis occur in children under age one year.

**What is the vaccine for pertussis?**

The vaccine for pertussis is given in combination with diphtheria and tetanus. Immunization authorities recommend that five doses of DTaP (diphtheria, tetanus, pertussis) vaccine be given at 2, 4, 6, and 15 - 18 months of age, and between four and seven years of age or by school entry. Children and adolescents (aged 11-18 years) who have completed the childhood vaccination series may also receive a booster Tdap vaccine (tetanus, diphtheria, pertussis) called Boostrix. Adults aged 11-64 are eligible for the Tdap booster called Adacel. Check with your physician.

**What can be done to prevent the spread of pertussis?**

The single most effective control measure is maintaining the highest possible level of immunization in the community. Anyone who comes into close contact with a person who has pertussis should receive antibiotics to prevent spread of the disease. Antibiotics used to prevent illness after exposure to pertussis include azithromycin once a day for 5 days, or clarithromycin twice a day for 7 days. Another alternative is erythromycin 4 times per day for 14 days. Treatment of cases with these antibiotics can shorten the contagious period as well as prevent disease transmission in persons without symptoms of pertussis. An infected person should stay home from day care, school, and/or work for five days after beginning antibiotic treatment. People who have or may have pertussis should stay away from young children and infants until properly treated.

Information compiled from Nebraska Department of Health and Human Services, Epidemiology Division  
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