



## Public Health Fact Sheet - Pertussis

### *What is pertussis?*

Pertussis, or whooping cough, is a contagious disease of the respiratory tract. It is caused by a bacterium that is found in the mouth, nose and throat of an infected person. Although it is far less common than it once was, pertussis cases have been increasing in the US over the past 2 decades for reasons that aren't entirely well understood.

### *Who gets pertussis?*

Pertussis can occur at any age. Severe illness is more common in young children who have not been immunized. Older children, teens, and adults with pertussis may have milder symptoms. Pertussis can be hard to diagnose in very young infants, teens, and adults because their symptoms often look like a cold with a nagging cough.

### *How is pertussis spread?*

Pertussis is spread when infected people cough or sneeze, expelling droplets that contain the pertussis germs that are then inhaled by others. Touching contaminated objects such as tissues or cups can also spread the disease. Infants often get the disease from older siblings or adults.

### *What are the symptoms of pertussis?*

Pertussis begins as a mild upper respiratory infection. At first, symptoms resemble those of a common cold, with sneezing, runny nose, low-grade fever and a mild cough. After a couple of weeks the cough becomes more severe and uncontrolled. Coughing spells may be intense and followed by a crowing or high-pitched whoop as the patient tries to take a breath. Thick, clear mucus may be discharged. The person may vomit during the coughing spell, or become blue in the face from lack of air. Between coughing spells the person often appears well. These episodes may recur for one to two months or longer, and are more frequent at night.

Young children who have not been immunized have the most severe symptoms. Infants less than six months of age, as well as adolescents and adults, often do not have the characteristic whoop.

### *How soon do symptoms appear?*

The first symptoms usually appear about 7 to 10 days after being exposed, but may not show up for as long as 21 days.

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

A person can transmit pertussis starting about 7 days after being infected, and remain infectious until about 3 weeks after the onset of coughing. By taking antibiotics the contagious period is reduced to about 5 days from the start of treatment.

### *How is pertussis diagnosed?*

A doctor may suspect a patient has pertussis based on symptoms; to confirm it a sample of mucus must be taken from the back of the nose (nasopharynx) for testing. A laboratory then tests the sample to determine whether the patient has pertussis.

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

A pertussis infection results in immunity for several years, but the immunity eventually fades.

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

Complications of pertussis may include pneumonia, middle ear infection, loss of appetite, dehydration, seizures, encephalopathy (disorders of the brain), apneic episodes (brief cessation of breathing) and death. Eighty percent of pertussis-related deaths occur in children under 1 year of age.

### *How is pertussis treated?*

Antibiotics may make the disease milder if they are started very early in the illness; however, their main value is in reducing the spread of the pertussis germs from the patient to others. Generally, in addition to the person with pertussis, household contacts and other close contacts should also be given antibiotics to prevent the disease, even if they were vaccinated. In addition, it is helpful for the patient to get plenty of rest and fluids. Treatment for young children may include supportive therapy such as fluids, oxygen, and mild sedation to help the child during the prolonged period of coughing.

### *Is there a vaccine for pertussis?*

Yes. The vaccine for pertussis is given to children as part of a combination vaccine (known as DTaP) that also protects against diphtheria, tetanus and sometimes other diseases. Doctors recommend that the vaccine be given to children at two, four, six months, and 15-18 months of age, with an additional dose at 4-6 years of age.

In 2005, tetanus, diphtheria, and pertussis combination vaccines were licensed for use in adolescents and adults (known as Tdap). Currently a single dose is recommended for adolescents. Adults should also receive a dose of Tdap (as a substitute for one of the Td doses that are given every 10 years a booster). Persons who have, or expect to have, close contact with infants should be given priority for receiving Tdap.

In the future Tdap may be recommended to replace Td as the routine booster given to adults every 10 years.

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

The best way to prevent pertussis cases and outbreaks is to have the highest possible level of immunization in the community. This can be achieved by ensuring that all recommended vaccine doses are given at the recommended time. People who have pertussis or who are suspected to have it should stay away from others, especially young children and infants, until properly treated.