



Promoting and Protecting Public Health

1819 Farnam Street, Room 401, Omaha, NE 68183-0401

What is pertussis?

Pertussis (whooping cough) is a respiratory tract infection caused by the bacterium, *Bordetella pertussis*. Before the advent of the pertussis vaccine, pertussis was a leading cause of morbidity and mortality in children. Approximately 15 people with pertussis are reported each year in Nebraska. Undoubtedly though, it is under reported as many infections in older children and adults are not recognized.

How is pertussis spread?

Humans are believed to be the only host of the pertussis bacteria. Transmission occurs by direct contact with discharges from respiratory secretions of infected people (e.g, created by coughing or sneezing).

What are the symptoms of pertussis infection?

Classic pertussis infections have three distinct phases of illness.

The **first stage**, the *catarrhal* stage, is characterized by sinus congestion, runny nose, slight sore throat, and low grade or absent fever. This stage lasts one to two weeks. The cough progressively becomes more severe. The coughs may become more severe in a series so close together that the person cannot take a breath between coughs. Following the coughing spells, there are gasps for air which may sound like a whoop. Vomiting may follow the coughing spells.

The violent coughing marks the beginning of the **second stage**, the *paroxysmal* stage which may last two to four weeks.

The **third stage** of pertussis infection is the *convalescent* stage. This stage can last two to four weeks during which time the vomiting and whooping gradually lessen. The illness in adults is often milder and without the whooping and vomiting.

When do the symptoms appear?

Symptoms may begin 6 to 20 days following exposure to the pertussis bacteria.

Are pertussis infections treatable?

Antibiotics appear to be useful in shortening the illness if given during the catarrhal stage. Azithromycin and Clarithromycin are now considered to be the drug of choice and offer more convenient dosing and fewer side effects than Erythromycin which had been the drug of choice for many years. Trimethoprim-sulfamethoxazole is an acceptable alternative. After the catarrhal stage, antibiotics cannot shorten the duration of the illness, but do reduce the amount of time an infected person can transmit the pertussis bacteria to others.

How long is an infected person communicable?

A person is considered communicable until the five days of appropriate antibiotic therapy have been completed.

Should infected people be excluded from work or school?

An infected person should be excluded from day care, school, and/or work for five days after beginning antibiotic treatment. If treatment is refused or the diagnosis is delayed, exclusion for three weeks after onset of the violent coughing.

What can be done to prevent the spread of pertussis?

The most cost-effective mode of pertussis prevention is timely vaccination of children. The vaccine is not effective in people older than seven years. Also, the protection from vaccination lasts for 10 to 12 years, meaning virtually all older adolescents and adults are susceptible. There are now two vaccines approved for adolescents and adults. These have been combined with the tetanus booster that is recommended ever ten years.