What is pertussis?

Pertussis, more commonly known as whooping cough, is caused by a bacterium (germ), Bordetella pertussis, that lives in the mouth, nose and throat. The germ is highly contagious and is easily spread from person-to-person.

How is pertussis spread?

The bacteria are shed in discharges from the nose and throat and spread to others through coughing and sneezing. An infected person is contagious from just before onset of symptoms until up to three weeks after symptoms start. Treatment with appropriate antibiotics shortens the contagious period to about five days.

Who is susceptible to contracting pertussis?

Despite the effectiveness of vaccination, pertussis continues to occur in the United States among ***all*** age groups. Anyone who has not had pertussis previously or who has not received the pertussis vaccine can get the disease. Immunity following disease or vaccination is not lifelong. Older children, adolescents and adults can become susceptible to pertussis five-to 10-years after their last dose of pertussis-containing vaccine. Older children and adults can carry the germ and spread it even though their cold-like symptoms may be so mild they might not seek medical care.

Since 2000, about a quarter of the cases reported have occurred in children younger than 1 year of age and this group has the highest rates for complications and death. Older children and adolescents have accounted for more than half the reported cases, and adults 20 years of age and older comprise the remaining 25 percent of reported cases.

What are the symptoms of pertussis?

Symptoms usually appear five-to 10-days after exposure, but can take as long as 21 days. The first symptoms are similar to those of a common cold - a runny nose, sneezing, low-grade fever and a mild, occasional cough. The cough gradually becomes severe and, after one to two weeks, the patient has spasmodic bursts of numerous, rapid coughs. The characteristic high-pitched "whoop," which is more common in children, comes from breathing in after a coughing episode. During such an attack, the patient may turn blue, vomit and become exhausted. Between coughing attacks, the patient usually appears normal.

Coughing attacks occur more frequently at night. The attacks increase in frequency for a couple of weeks, remain at the same level for two-to three-weeks, and then gradually decrease. Coughing may last as long as 100 days. Cough medicines usually do not help eliminate this cough. Recovery is gradual, but coughing episodes can recur for months after the onset of pertussis.

Can there be complications?

Although most people recover, complications of pertussis can be severe. It can be a critical illness in children younger than 1 year of age, especially in premature babies or those with lung disease. Nationally, there were 27 deaths reported among infants with pertussis in 2004. Less serious complications include ear infections, loss of appetite and dehydration. Although infrequent, complications affecting the brain, such as convulsions and inflammation, may occur, especially in infants, and can have long-term effects or cause death.

How is pertussis treated?

Pertussis is usually treated with a multi-day course of appropriate antibiotics, such as azythromycin, erythromycin or clarithromycin, or an acceptable alternative. Some children may need to be hospitalized. People in close contact with children or adults with pertussis usually need to be treated with antibiotics and efforts should be taken to minimize an infant's exposure to children and adults with cough illnesses.

Can pertussis be prevented?

Every child should get pertussis vaccine at 2, 4, 6 and 15 months of age and another dose at 4 to 6 years of age. This vaccine is given in the same shot with diphtheria and tetanus vaccines. Immunization is required for child care and school attendance.

New booster vaccines became available in 2005 that offer continued protection against pertussis, diphtheria and tetanus for adolescents and adults. These vaccines have been added to the recommended schedule of vaccinations for adolescents. Adults with routine contact with infants less than 12 months of age should receive a booster dose.

Are there side effects to the vaccine?

Local reactions, such as redness, pain and swelling, are common. Occasionally, a lump can be felt at the injection site for several weeks. Reactions such as fever, drowsiness, fretfulness and loss of appetite occur frequently. Most of these problems resolve by themselves. Less frequently, high fever, persistent inconsolable crying lasting more than three hours, fainting or an unresponsive collapsed-like state, and convulsions can occur. Very rarely, severe nervous system problems have been reported.