

Pertussis (Whooping Cough)

The Disease

If you've ever seen a child with pertussis you' won't forget it. The child coughs violently and rapidly, over and over, until the air is gone from her lungs and she is forced to inhale with the loud "whooping" sound that gives the disease its nickname, Whooping Cough. Then the coughing begins again. These severe coughing spells can go on for weeks. The child might turn blue from lack of air, or vomit after a coughing spell. A child with Whooping Cough can have difficulty eating, drinking, or even breathing.

Pertussis is a very contagious disease, and one that is fairly common in the United States, even today. It is caused by bacteria called *Bordetella pertussis* that live in the mouth, nose, and throat. Pertussis is spread by personal contact, coughing and sneezing.

It usually takes a week to 10 days from the time a child is exposed until symptoms appear. At first pertussis looks like a common cold, with sneezing, runny nose, fever, and a mild cough. But after 1 or 2 weeks the severe coughing spells begin. This stage of the disease usually lasts 1 to 6 weeks, but can last longer.

After the coughing stage has passed the child usually recovers gradually over 2 to 3 weeks. A child with pertussis can give the disease to another child from about a week after exposure till about 3 weeks after the severe coughing starts.

Pertussis is most severe in infants under 1 year old. More than half of these infants who get the disease must be hospitalized. Older children and adults can get pertussis too, but it is much less severe and might not even be recognized as pertussis. Many infants who get pertussis catch it from their older brothers and sisters or from their parents.

Pertussis can cause serious complications. About 1 child in 10 with pertussis also gets pneumonia, and about 1 in every 50 will have convulsions. In 1 out of every 250 people who get pertussis, the brain is affected. This is called encephalopathy. Pertussis causes about 10-15 deaths a year in the United States.

Pertussis Fact: The first reported epidemic of pertussis was in Paris in 1578.

Pertussis Immunization

The first pertussis vaccine was developed in the 1930's, and became widely used by the 1940's. In the early 1990's a new "acellular" pertussis vaccine was licensed, which works as well as the older vaccine but has fewer side effects.

The series of pertussis vaccinations children get protects them until they are about 10 years old. After that age, they may no longer be immune to pertussis. Pertussis vaccine is not licensed for older children, so we cannot give "booster" doses to keep protection from fading. But pertussis vaccine for older children and adults might be available in the near future.

The number of pertussis cases reported to CDC has dropped by more than 98% since the vaccine was licensed. There were over 183,000 cases reported in 1940, about 120,000 cases in 1950, just under 15,000 cases in 1960, and fewer than 5,000 cases most years since 1970. The lowest number ever reported was 1,010 cases in 1976. The number of cases has been rising slightly in recent years. We are not sure why, but it is probably because more cases are being recognized in adolescents and adults.

Pertussis vaccine is almost always given in DTaP vaccine, along with diphtheria and tetanus toxoids. [Click here to jump to the chapter about DTaP vaccine.](#)