Pertussis (Whooping Cough)

**General Information**
Pertussis, a respiratory illness commonly known as whooping cough, it is a very contagious disease caused by a type of bacteria called *Bordetella pertussis*. These bacteria attach to the lining of the upper respiratory system.

The disease is only found in humans and is spread from person to person. People with pertussis usually spread the disease by coughing or sneezing while in close contact with others, who then breathe in the pertussis bacteria. Many infants who get pertussis are infected by older siblings, parents or caregivers who might not even know they have the disease. Symptoms of pertussis usually develop within 7–10 days after being exposed, but sometimes not for as long as 6 weeks. Pertussis vaccines are very effective in protecting people from disease but no vaccine is 100% effective. If pertussis is circulating in the community, there is a chance that a fully vaccinated person, of any age, can catch this very contagious disease. The infection is usually less severe in persons who have been vaccinated.

**Symptoms**
Pertussis can cause serious illness in infants, children and adults. The disease usually starts with cold like symptoms and maybe a mild cough or fever. After 1 to 2 weeks, severe coughing can begin. Unlike the common cold, pertussis can become a series of coughing fits that continues for weeks. In infants, the cough can be minimal or not even there. Infants may have a symptom known as "apnea." Apnea is a pause in the child's breathing pattern. Pertussis is most dangerous for babies. About half of infants younger than 1 year of age who get the disease are hospitalized.

Because pertussis in its early stages appears to be nothing more than the common cold, it is often not suspected or diagnosed until the more severe symptoms appear. Infected people are most contagious up to about 2 weeks after the cough begins. Antibiotics may shorten the amount of time someone is contagious. As the disease progresses, the traditional symptoms of pertussis appear and include paroxysms (fits) of many, rapid coughs followed by a high-pitched "whoop", vomiting (throwing up), and exhaustion (very tired) after coughing fits.

The coughing fits can go on for up to 10 weeks or more. Although patients are often exhausted after a coughing fit, they usually appear fairly well in-between. Coughing fits

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generally become more common and severe as the illness continues, and can occur more often at night. The illness can be milder (less severe) and the typical "whoop" absent in children, teens, and adults who have been vaccinated with a pertussis vaccine. Recovery from pertussis can happen slowly. The cough becomes less severe and less common. However, coughing fits can return with other respiratory infections for many months after pertussis started.

**Prevention**

**Vaccines**

The best way to prevent pertussis among infants, children, teens, and adults is to get vaccinated. Also, keep infants and other people at high risk for pertussis complications away from infected people. In the United States, the recommended pertussis vaccine for infants and children is called DTaP. This is a combination vaccine that protects against three diseases: diphtheria, tetanus and pertussis. Vaccine protection for these three diseases fades with time. Before 2005, the only booster available contained protection against tetanus and diphtheria (called Td), and was recommended for teens and adults every 10 years. Today there is a booster for preteens, teens and adults that contains protection against tetanus, diphtheria and pertussis (Tdap).

The easiest thing for adults to do is to get Tdap instead of their next regular tetanus booster—that Td shot that they are supposed to get every 10 years. The dose of Tdap can be given earlier than the 10-year mark, so it is a good idea for adults to talk to a healthcare provider about what is best for their specific situation.

**Environmental Hygiene**

*Bordetella pertussis* is a Gram-negative coccobacillus, very short rods which may be mistaken for cocci (the shape is intermediate between cocci (spherical) and bacilli (rods)). The disease is spread by airborne droplets; its incubation period is seven to 14 days.

The bacterium can live on infected surfaces and on objects for 2-3 days and spreads so easily that people who are not immune will probably get it when they come close to someone who is infected.

Environmental surfaces should be properly cleaned using a disinfectant that is effective against Gram-negative bacteria.