
What is whooping cough (pertussis)?

Information and Prevention



IMPORTANT

Pertussis (or whooping cough) is a highly contagious infection that can cause uncontrollable, violent coughing. If you or someone in your family has been diagnosed with pertussis, there are steps you can take to avoid spreading it to your family and friends.

This booklet was developed with the help of those who are experts on pertussis. Follow the recommendations and practice good hygiene to take care of yourself. Pertussis may cause physical pain and emotional stress, but keep in mind that it can be managed. For more information about your pertussis infection, please contact your doctor.



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What is whooping cough and why is it so serious?

Whooping cough, also known as pertussis, is a very contagious respiratory infection caused by the bacteria *Bordetella pertussis*. Even if you had whooping cough in the past the bacteria can infect you again, because immunity from the disease does not last a lifetime.

Pertussis outbreaks were first mentioned in the 16th century. It was one of the most common childhood infections and a major cause of childhood deaths as recently as the 20th century. A vaccine was developed in the 1940's to help prevent pertussis. Before the vaccine was introduced, there were more than 200,000 people infected with pertussis each year in the U.S. Since the vaccine was introduced, the number of people infected with pertussis has dropped by 80%. Pertussis infections range from mild to very serious, even life-threatening. Pertussis is more serious among infants and children and milder among adults. Pertussis is very contagious and usually spreads by coughing, especially during the first two weeks when symptoms may be mild.

What are the symptoms of pertussis?

Common symptoms of pertussis include:

- Cold-like symptoms with a cough and little or no fever (without another known cause).
- Spasms of cough (sudden spells or "fits" of coughing where one cough follows the next without a break for a breath, a whooping sound may be heard in children).
- Coughing illness which becomes worse over 1-2 weeks with "fits" lasting several minutes, person may appear and feel well between these "fits" of coughing.
- Throwing up/vomiting after a "fit" of coughing.
- Trouble catching their breath or turning blue after a "fit of coughing."
- Coughing is often worse at night and cough medicines usually do not help.
- Infants may not experience a cough at all, but instead have life-threatening pauses in breathing

How can I get pertussis?

You can get pertussis by being in close contact with others who have pertussis. It usually spreads to others when the person with pertussis coughs. You can also get pertussis by touching surfaces contaminated by an infected person, but this is very rare. Many infants and young children are infected by their parents or older siblings who may not even know they have pertussis.

Your chances of getting pertussis may be increased if:

- You have never received the pertussis vaccine
- You are not up to date with your pertussis vaccine, including any booster shots

What are possible complications from pertussis?

Infants and children have a greater chance of getting complications from pertussis than adults. The most common complication is bacterial pneumonia, which is also the cause of most pertussis-related deaths. About half of infants under the age of one year who get pertussis are hospitalized. The younger the infant, the more likely hospital treatment will be needed. One out of four infants may get pneumonia.

Can you get pertussis more than once?

Unfortunately, you can get pertussis more than once, but this is fairly uncommon. Once you have pertussis, you develop an immune response to help fight off the infection in the future, but immunity goes away after several years and you can get pertussis again.

How is pertussis treated?

Pertussis is generally treated with medicine. Early treatment is important. Your doctor will prescribe antibiotics for you to help make your infection less severe. Antibiotics may also be given to your close contacts and people living in your home, even if they are vaccinated. This helps stop the spread of pertussis. If you have pertussis, you should get plenty of rest and drink plenty of fluids. You should also stay at home when you are sick to prevent other people from getting sick.

What is the DTaP vaccine? Is it safe?

The DTaP vaccine will protect a child from three different infections: diphtheria, tetanus, and pertussis. It is given to infants and children ages 6 weeks through 6 years of age. A vaccine goes through repeated testing before the Food and Drug Administration approves it and the FDA and Centers for Disease Control and Prevention continue to monitor all vaccines while they are recommended.

When should a child get the DTaP vaccine?

The usual schedule for children is a series of 4 doses of DTaP given at 2, 4, 6 and 15-18 months of age. A 5th dose is also recommended between ages 4 and 6 years.

If a child does not get the DTaP vaccine, will he/she get pertussis?

The best way to prevent pertussis is to be vaccinated. A vaccinated child is much less likely to get pertussis if exposed to it. During years when there are large numbers of pertussis cases occurring (outbreaks), unvaccinated children are more likely to be exposed and infected with pertussis.



What is the Tdap vaccine?

Tdap is the pertussis vaccine for older children and adults. It not only protects against pertussis, but tetanus and diphtheria as well.

When should someone get the Tdap vaccine?

The Tdap vaccine is recommended at 11 to 12 years of age, but the first dose can be given as early as 7 years of age in certain cases. Adults should also get the Tdap vaccine if they have not already had it, even if they had pertussis in the past or were fully vaccinated as a child.

What is the difference between DTaP and Tdap?

DTaP and Tdap are both pertussis vaccines licensed and recommended to be given in the United States. The main difference between these two vaccines is the recommended age at which each one should be given. Your doctor can determine which one is appropriate to protect you against pertussis infection.

How effective are these vaccines?

The DTaP vaccine is about 80 to 90% effective. The Tdap vaccine was released in 2005 and current studies show it is about 70% effective at preventing pertussis. Both vaccines are most effective within the first two years after the shot.

Can the vaccines cause disease?

The DTaP and Tdap vaccine cannot cause a pertussis infection. Rarely the vaccine may cause side effects as with any vaccination, most commonly, soreness around the vaccination site.



Can a pregnant woman receive the Tdap vaccine?



It is recommended that pregnant women get vaccinated with Tdap during each pregnancy. This protects the mother from becoming infected and passing the infection to her newborn infant. Data have shown that it is unlikely that pregnant women will have harmful effects to the fetus from the Tdap vaccine. CDC recommends that pregnant women get Tdap DURING each pregnancy, preferable at 27 through 36 weeks. If not given during pregnancy, then it should be given immediately postpartum, before leaving the hospital.

How can I prevent spreading pertussis to others?

Pertussis is transmitted through the air typically when a sick person coughs close to someone else. Infants or children usually catch it from an older sibling or adult that may not even know they have the disease. If you have pertussis, it is important to take the full course of antibiotic treatment and to stay at home to prevent other people from getting sick. It is important to cover your cough and wash your hands frequently. Although it is not 100% guaranteed, the best way to prevent spreading pertussis is to get vaccinated. And remember, persons with a cough illness should not be around infants and infants should not be around ill persons.



What is herd immunity (Community Immunity)?

Herd immunity (also known as community immunity) is a situation in which the majority of a population is immune to an infectious disease. This occurs mainly because the population has been previously immunized to the disease. Herd immunity reduces the chance that non-immune persons will get the disease since the disease will be less likely to spread among a population of mostly immune persons.

What precautions should healthcare workers take to prevent pertussis?

Healthcare workers should be alert for possible cases of pertussis. Even if they only suspect a patient of having pertussis, appropriate measures should be taken to prevent spread. Suspect cases should be placed away from others and/or given a mask to wear. Healthcare workers should wear masks when examining a patient with suspected pertussis. Tdap is highly recommended for healthcare workers. Regardless of age, healthcare workers should receive the Tdap vaccine if they have not received one already. Healthcare workers (and others) with unprotected exposure to the respiratory secretions of a case of pertussis should receive antibiotics to prevent illness regardless of whether or not the exposed person has received the Tdap vaccine. Most importantly, healthcare workers should not work if they are sick with a cough or other illness.

Are there certain populations that are especially vulnerable to pertussis in health care facilities?

Children, especially infants, pregnant women, and elderly patients in health care settings are the most vulnerable, especially if their health is already at risk with another illness. If you're concerned about pertussis and possible pertussis in a health care facility, please contact your local health department.

References

<http://www.cdc.gov/vaccines/pubs/pinkbook/pert.html>
<http://www.cdc.gov/pertussis/about/complications.html>
<http://www.cdc.gov/vaccines/pubs/preg-guide.htm>
<http://www.cdc.gov/pertussis/about/prevention.html>

Web Sites

Centers for Disease Control and Prevention (CDC)

<http://www.cdc.gov/pertussis/>

Your Local Health Department

<http://azdhs.gov/phs/oids/contacts.htm#>

Acknowledgements

Arizona Healthcare Associated Infections (HAI) Program

www.preventHALaz.gov



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