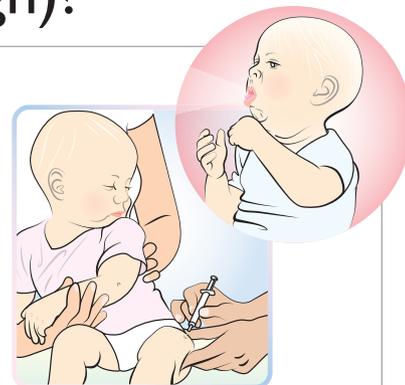


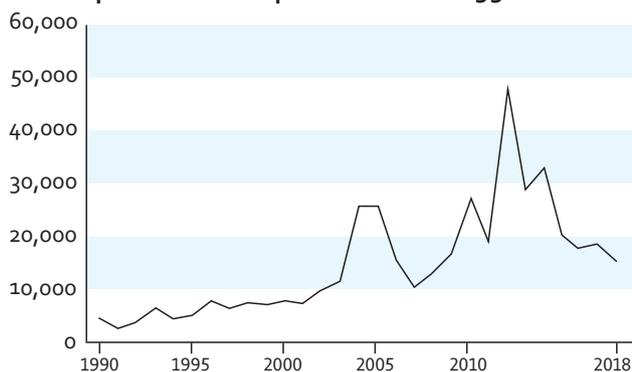
# What Is Pertussis (Whooping Cough)?

Pertussis is a very contagious respiratory infection commonly known as 'whooping cough'. It is caused by a bacterium called *Bordetella pertussis*. The infection became much less common after a successful vaccine was developed and given to children to help prevent infection. However, in recent years, the number of people infected with pertussis has increased and now is at the highest rate seen since the 1950's. There is concern that this is due mainly to people not taking the pertussis (whooping cough) vaccination and adults who have not had a booster and their immune protection has weakened with age.



Whooping cough usually starts as a mild cold-like illness (upper respiratory infection). The pertussis bacteria enter the lungs and cause swelling and irritation in the airways leading to severe coughing fits. At times, people with whooping cough can have a secondary pneumonia from other bacteria while they are ill. Whooping cough can cause very serious illness. It is most dangerous in young babies and can result in death. It spreads very easily and people who have the infection can still spread it to others for weeks after they become sick. Many babies get infected by parents, siblings, or other adults who may have less severe infection without the typical cough. Even if a person has had whooping cough in the past or has had the vaccine, he or she can still get sick. However, the vaccine can help reduce the risk and how severe the infection is.

Reported NNDSS pertussis cases: 1990–2018



Source: CDC, National Notifiable Diseases Surveillance System and 1922-1949, passive reports to the Public Health Service  
<https://www.cdc.gov/pertussis/images/incidence-graph-2018.png>

## How is Pertussis infection spread?

Pertussis is spread from person to person. The infection gets into your body through your nose, mouth or eyes. When an infected person coughs or sneezes, bacteria-containing droplets

get in the air. If you are close enough, you can breathe in these droplets or they can land on your mouth, nose, or eye. You can also get the infection if you kiss the face of a person with pertussis or get infected nose or mouth secretions on your hands and then touch your own face to rub your eyes or nose. A person with pertussis can remain contagious for many weeks unless treated with an antibiotic.

## What are the symptoms of Pertussis infection?

Pertussis illness is often described in two stages based on the symptoms and when coughing starts.

Early symptoms (first 1-2 weeks)—mainly 'cold' symptoms

- Mild cough
- Runny nose
- Fever (low grade and not seen in all people)
- Infants may have "apnea" which is a pause in breathing

Later symptoms (between 2-12 weeks)

- Rapid coughing fits (bursts of repeated uncontrollable cough also called coughing spells or paroxysms) often followed by a loud high pitch "whooping" sound on breathing in.
- Vomiting—throwing up usually after a coughing fit.
- Tired feeling after coughing fits and poor sleep.
- Rarely, infants can have seizures or irritation of the brain.

Pertussis infection increases a person's risk of developing pneumonia. A person who is getting better from whooping cough may be more at risk of getting another infection.

People can have low oxygen levels or pass out during coughing spells. Some can get rib fractures (cracked ribs) due to the force of coughing. The cough can last for 6-10 weeks. It has been called the "100 day cough."

How long a person is ill depends on age, other health conditions, and whether antibiotic treatment is given in the early stage of illness. As a person recovers, coughing fits become less severe and often.

## Prevention of Pertussis (Whooping Cough)

The best way to prevent pertussis infection is to get the pertussis vaccine. The pertussis vaccine does not contain live bacteria and cannot give you the infection.

**Children:** Pertussis vaccine usually given as a shot together with other vaccines. The most common form is called DTaP. This combination vaccine also protects against other infections called diphtheria and tetanus. The first dose is given by 2 months of age. Make sure your baby gets all doses of the vaccine on time. Your healthcare provider will help you keep track of when doses are needed. Some children with neurologic conditions and seizures may not receive pertussis vaccine or delay getting it. Your healthcare provider can also tell you about any risks or reasons you or your child would not be given pertussis vaccine.

**Adults:** Protection from early childhood vaccination can wear off. All adults age 19 to 64 years need a one-time whooping cough booster vaccine. This is often given together with a tetanus vaccine booster (called Tdap). Adults age 65 years and older need a one-time whooping cough booster if they will have close contact with infants younger than 12 months.

**Pregnant Women:** It is also advised that pregnant women get the pertussis vaccine during the second or third trimester of each pregnancy to protect the newborn baby.

**People with Close Exposure:** If you are in close contact with someone who has pertussis, ask your healthcare provider if you need to start antibiotic treatment. People living in the household and other close contacts are usually also given antibiotic even if they are not yet sick when there is a person with pertussis as it is so easily spread.

Other steps you can take to help reduce you and your child's risk of pertussis and other respiratory infections include:

- Wash your hands well with soap and water or use an alcohol-based hand sanitizer and have others wash hands before holding or touching your baby.
- Avoid touching your eyes, nose and mouth.
- Stay 6 feet from someone who is sneezing or coughing if possible.
- Avoid tobacco smoke exposure which can increase risk of infection

If you have any cold-like symptoms or cough, you should:

- Cover mouth and nose when you cough or sneeze. If you don't have a tissue, cough or sneeze into your elbow. Throw used tissue in the trash.
- Wash your hands frequently and correctly
- Refrain from kissing others
- Stay away as much as possible from babies and people who have other health problems that put them at higher risk of serious infection.

## Treatment of Pertussis

It is important to see your healthcare provider as soon as you start having symptoms. While it can be hard to know early if symptoms are a cold, if the cough is getting worse or your child has not gotten vaccine, it is best to get checked. Early diagnosis

and treatment may result in a less severe infection and can prevent spreading it to others. The earlier that an antibiotic is started in the illness, the more likely you can avoid having the whooping cough spells that last for weeks.

Sometimes the infection is so severe that the treatment needs to be given in the hospital. Babies are at a high risk for needing hospital care. Oxygen and intravenous (IV) fluids may be needed because of severe coughing spells. People cannot return to daycare, school or work until they have completed the antibiotic.

Do not give cough medicine unless your healthcare providers tells you to. Cough medicine will not help and may give side-effects. Over the counter cough and cold medicines are not to be given to children less than 4 years of age.

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## Rx Taking Action

- ✓ Make sure your child gets all doses of the pertussis vaccine.
- ✓ Make sure you get a booster dose of vaccine as a teen and as an adult. Get an additional booster if you are pregnant.
- ✓ Avoid contact with ill persons until they are no longer contagious (usually a week after starting antibiotic)
- ✓ If you suspect you or your child has pertussis, see a healthcare provider promptly for testing and treatment.

**Healthcare Provider's Contact Number:**

## Resources:

**American Thoracic Society**  
[www.thoracic.org/patients](http://www.thoracic.org/patients)

**Centers for Disease Control**  
<http://www.cdc.gov/pertussis/>  
 This site also includes a link to a video of how whooping cough sounds.

**American Academy of Pediatrics—Healthy Children**  
<http://www.healthychildren.org/English/health-issues/conditions/chest-lungs/Pages/Whooping-Cough.aspx>

**National Foundation for Infectious Diseases (NFID)**  
<http://www.nfid.org/pertussis/> and [http://www.adultvaccination.org/whooping\\_cough\\_vaccine\\_pertussis\\_vaccination\\_adult\\_immunization.htm#sthash.1a8uW4gQ.dpuf\\_](http://www.adultvaccination.org/whooping_cough_vaccine_pertussis_vaccination_adult_immunization.htm#sthash.1a8uW4gQ.dpuf_)

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