

# Whooping cough in children aged 1 year or older, adolescents and adults



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## What is whooping cough?

Whooping cough, also known as pertussis, is a respiratory infection caused by *Bordetella pertussis* bacteria. Whooping cough usually begins with mild, cold-like symptoms which develop over one to two weeks into coughing fits which can be severe. The cough can often last for two to three months and because of this whooping cough is known as the “100 day cough” in some countries.

## Who can be affected by whooping cough?

Whooping cough most commonly affects infants. Very young babies are at highest risk of serious complications, of needing admission to hospital or of dying from whooping cough. Whooping cough does, however, also occur in other children, adolescents and adults. In all age groups, apart from children who have recently been vaccinated (those aged from 4 months to around 9 years), the number of cases of whooping cough is currently high across the UK compared to recent years.

## How do you catch whooping cough?

Whooping cough is a very infectious disease that is passed from one person to another. The bacteria are present in the back of the throat of an infected person and may be spread by coughing and sneezing. A person can infect other people from 2-4 days before they start to cough to around 21 days after coughing starts. Symptoms of whooping cough usually develop 7-10 days after contracting the infection.

## Symptoms of whooping cough

The early symptoms of whooping cough are similar to a common cold with a runny nose, low fever, sneezing and mild occasional coughing. Over the next one to two weeks this progresses to fits of coughing which may be followed by choking and/or vomiting. The cough often

comes in short bursts (paroxysms) followed by a desperate gasp for air (when the characteristic whooping noise may be made) and the feeling of not being able to catch your breath. However, particularly in older children and adults, whooping cough doesn't always cause the typical symptoms of whooping or vomiting after each coughing bout. Sometimes as a result of the coughing you may develop wheezing. As the illness improves the wheezing will also get better.

Exhaustion may set in after a coughing bout. Between these bouts of coughing, you may feel well but the cough can last for weeks or months. Coughing is more frequent at night and is likely to disturb sleep. Over time the episodes of coughing become less frequent and gradually you will fully recover.

Several websites have sound files or videos with examples of the classic cough. See for example [www.whoopingcough.net/symptoms.htm](http://www.whoopingcough.net/symptoms.htm).

The likelihood of needing admission to hospital because of breathing difficulties caused by whooping cough is very high in infants but falls with increasing age. Serious complications, such as pneumonia and fits, are uncommon in children over 1 year of age and older age groups but can, very occasionally, occur. Sometimes the cough is severe enough to cause other problems such as fainting, muscle pain in the ribs (and occasionally fractured ribs), a hernia in the groin area or bleeding in the eye (conjunctival haemorrhage).

It is important to remember that although the symptoms of whooping cough may be mild the infection can be passed on to others in the first few weeks of illness. This will include those who may be more likely to develop serious symptoms, in particular very young babies who have not received any or all of the recommended doses of the whooping cough vaccine and women in the latter stages of pregnancy who will soon give birth to such babies.

## Immunisation against whooping cough

Vaccines are the best way to prevent whooping cough. Before the whooping cough vaccine became routinely available in 1957, large epidemics occurred every 3–5 years in the UK. These epidemics affected up to 150,000 people and contributed to approximately 300 deaths each year. On average in the last ten years (2002-2011) in England and Wales, 800 cases of whooping cough were reported annually with over 300 babies needing admission to hospital and 4 babies dying each year.

In the UK, whooping cough vaccine is currently offered to babies at 2, 3 and 4 months and a fourth dose is included with the pre-school booster given 3 years later. We know that protection is very high in the first few years after receiving the vaccine or after having the disease. However the level of protection gradually falls so, even if you had whooping cough infection or received all your vaccines as a child you can still get whooping cough some years later. People who do catch whooping cough after being vaccinated or who have the disease for a second time are much less likely to be severely ill.

## My child has not received all their scheduled doses of whooping cough vaccine; can they be given the vaccine now?

It is important for every child under 10 years of age to receive all the doses of whooping cough vaccine recommended for children of their age. There are very few children who cannot receive whooping cough vaccines. Before a baby reaches their first birthday they should have been given 3 doses of whooping cough vaccine. By the time a child is 3 and half years of age they should have been given a total of 4 doses of whooping cough vaccine. If they have missed any doses of whooping cough vaccine your GP practice will be able to give them the additional dose/s if they are still under 10 years of age. Whooping cough vaccines are only available combined with the other routine childhood vaccines.

In certain circumstances, where an increased risk of whooping cough has been established, whooping cough vaccine may be offered to someone who is 10 years or older or who has already received all of their scheduled doses.

## I think I/ my child might have whooping cough.

### What should I do?

#### Seek medical attention

If you think you or your child might have whooping cough

then you should seek health advice as early as possible. This is particularly important if you have regular contact with a young baby or pregnant women, for example in your home or through work. It is also important if there is someone else in your household who works with young babies or pregnant women. Early diagnosis and treatment can help to reduce the spread of infection to others.

It can be quite difficult to diagnose whooping cough because other conditions can also cause an ongoing cough. Whooping cough doesn't always cause the typical symptoms of the whoop or vomiting after coughing, particularly in older children and adults. Whilst whooping cough is often diagnosed from your symptoms or by checking whether you have been exposed to another person with whooping cough, you may be offered a blood test which can help to confirm the diagnosis.

### Treatment

Whooping cough is generally treated with antibiotics. Importantly, whilst antibiotics are unlikely to change your symptoms unless taken very early in the disease (before coughing starts), they can reduce the likelihood of passing the infection to others.

### Reducing the spread of whooping cough

If your doctor has diagnosed whooping cough you should stay off school/work until at least 21 days from the onset of symptoms or after you have been taking antibiotics for at least 5 days (whichever is the sooner). This is particularly important if you work in a healthcare setting or attend or work in school. For this period you should also stay away from babies and women who are in the late stages of pregnancy. If your doctor has diagnosed whooping cough and you have been coughing for more than 21 days or taking the correct antibiotics for at least 5 days then you should no longer be infectious.

If there are unimmunised or incompletely immunised babies or pregnant women in your home, they may also be offered antibiotics to reduce their risk, and therefore their baby's risk, of being infected.

### Where to go for more information

If you have any more questions please telephone NHS Direct on 0845 4647, see your GP or visit NHS Choices online at: [www.nhs.uk/Conditions/Whooping-cough/Pages/Introduction.aspx](http://www.nhs.uk/Conditions/Whooping-cough/Pages/Introduction.aspx)