

Whooping cough (pertussis)

What is whooping cough?

Whooping cough, also called *pertussis*, is a highly contagious disease that mainly affects the lungs.

What is the cause of whooping cough?

It is caused by a specific bacterium called *Bordetella pertussis* which infects the lungs, causing the airways (bronchial tubes) to become clogged with thick mucus. It is spread through air droplets by coughing and sneezing and also by close direct contact with an infected person.

Who gets whooping cough?

People of all ages can catch it but it is most common in children especially in infants under 2 years of age. Older people can get it often because their immunity wanes as they age.

How common is whooping cough?

It is a very common infection in those people who are not immunised and in countries that do not have an immunisation program. About 80% of unimmunised children develop it—usually by their fifth birthday. It is uncommon in immunised people.

What are the symptoms?

Slightly different symptoms are seen in three distinct stages.

Stage 1: The catarrhal or runny nose stage. The early symptoms are similar to a common cold with a runny nose, watery eyes, slight fever and a dry cough. It lasts about 1 to 2 weeks and then unlike an ordinary cold the symptoms get worse.

Stage 2: The paroxysmal cough stage. This is where the cough comes in bursts (paroxysms) and becomes more severe until it occurs continuously in bouts of up to a minute. At the end of each coughing bout the affected person may make a 'whooping' noise as they gasp for breath. Because the person cannot breathe in during this bout their face may go deep red or blue from lack of oxygen (called apnoea). Vomiting often occurs at the end of a coughing bout. This stage lasts for an average of 4 weeks.

Stage 3: The recovery stage. The vomiting and coughing become less severe and less frequent. The cough can persist for several months.

What is vaccine-modified whooping cough?

Children who have been immunised, particularly if not fully immunised, can still get the infection but have a milder form. They may still make the familiar whooping sound. They can cough for several weeks.

What are the risks?

Whooping cough can be dangerous. The younger the child, the greater the risk.

Complications include:

- pneumonia with possible damage to lung tissue
- cerebral haemorrhage from coughing
- inflammation of the brain (encephalitis)
- choking and apnoea.

How is it diagnosed?

Doctors can diagnose it by the symptoms especially the nature of the cough. It can be confirmed by blood tests and examining swabs taken from the nose or throat.

What is the treatment?

The treatment depends on the severity of the symptoms.

General measures

- It is usual to be cared for at home.
- Give ample fluids and nutritious food.
- Good ventilation in the home is helpful.
- Avoid emotional excitement, smoke and dust.
- Cough medicines are not recommended—they do not seem to help.

Antibiotics

A 7-day course of antibiotics is usually given to help reduce the spread of the infection. However, they do not improve or cure the patient. Antibiotics are generally not recommended if the cough has been present for more than 3 weeks.

Hospitalisation

As a rule, infants less than 6 months, and also older children with a more severe illness, are admitted to hospital because of the dangers of apnoea and choking.

School exclusion

School exclusion is necessary until at least 5 days of antibiotic use.

How is whooping cough prevented?

This is best done by immunisation. In Australia the recommended routine schedule is by pertussis vaccination (combined with tetanus and diphtheria) at 2, 4 and 6 months with boosters at 4 years and 15 to 17 years.

For close contacts of an infected person, a 7-day course of antibiotics is recommended, regardless of immunisation status. It should be commenced within 3 weeks of the onset of the cough.