

## Whooping cough

Whooping cough (pertussis) is a serious, contagious, respiratory infection caused by the bacterium *Bordetella pertussis*. The disease begins like a cold and then the characteristic cough develops. This cough may last up to three months, even after antibiotic treatment is completed and the person is no longer infectious.

The 'whoop' (which is not always obvious) is due to a deep breath at the end of a bout of coughing. Vomiting after coughing is common.

Whooping cough is particularly dangerous for babies less than six months of age. They are affected more seriously by the disease than older children or adults, and are more likely to develop complications.

One in every 200 babies who contract whooping cough will die. Immunisation is the best way to reduce the risk of whooping cough.

### Symptoms of whooping cough

Whooping cough begins with symptoms similar to those of a cold. These can rapidly progress to include:

- severe cough – occurs in bouts
- characteristic 'whooping' sound on inhalation
- vomiting at the end of a bout of coughing
- apnoea – the child stops breathing for periods of time and may go blue.

These symptoms may be associated with poor appetite, fatigue and dehydration. The person may appear normal between bouts of coughing. During the recovery, the cough gradually decreases, but can last up to three months.

### Complications of whooping cough

Whooping cough is most serious in babies under 12 months of age. In young babies less than six months of age, the symptoms can be severe or life threatening. Seek urgent medical attention if your child's lips or skin go blue (cyanosis) or if they are having breathing difficulties associated with the coughing.

Some of the complications of whooping cough in young babies include:

- haemorrhage (bleeding)
- apnoea (stopping breathing for periods of time)
- pneumonia
- inflammation of the brain
- convulsions (fits) and coma
- permanent brain damage
- death.

### Causes of whooping cough

The *Bordetella pertussis* bacterium is spread by airborne droplets from the upper respiratory tract (when the infected person coughs or sneezes) and is highly infectious. The time from infection to appearance of symptoms (incubation period) is between six and 20 days.

A person is infectious for the first 21 days of their cough or until they have had five days of a 10-day course of antibiotics. In countries where immunisation rates are high, the risk of catching whooping cough is low.

In Victoria, most reports of whooping cough currently occur in adults over 20 years of age. Recent research has shown that family members, household contacts and carers are the main source of whooping cough infection in babies.

## Diagnosis of whooping cough

Whooping cough should be diagnosed and treated immediately. There are a number of tests for whooping cough, but they are not always reliable and the results may take some time. Treatment should not be withheld while waiting for these results.

Tests used to diagnose whooping cough may include:

- medical history including immunisation status
- physical examination
- blood tests
- swabs of the nose and throat for laboratory testing.

## Treatment for whooping cough

In its early stages, the symptoms of whooping cough can be reduced by taking antibiotics. If treatment is given in the first 21 days of the illness, the risk of passing the infection to others might be reduced.

Members of the infected person's household are at increased risk of acquiring the disease and are usually prescribed a strong antibiotic as a preventative measure, even if they are fully immunised.

## Immunisation against whooping cough

In Victoria, the whooping cough vaccine is only available in a number of combined vaccines that also contain protection against other serious and potentially fatal diseases. The type of combined vaccine used for immunisation will depend on the person's age group. Children need to follow the full schedule of vaccines to be fully protected.

In Victoria, immunisation against whooping cough is free for:

- children at two (from six weeks), four and six months of age – in the form of a diphtheria, tetanus, whooping cough, hepatitis B, polio and *Haemophilus influenzae* type b (Hib) vaccine (six-in-one vaccine)
- children at four years of age – in the form of a diphtheria, tetanus, whooping cough and polio vaccine (four-in-one vaccine)
- adolescents in secondary school (or age equivalent) – adolescents receive a booster dose of diphtheria, tetanus and whooping cough vaccine (three-in-one vaccine). The dose can also be given by a doctor or at a council community immunisation session
- pregnant women from 28 weeks gestation during every pregnancy
- partners of women who are at least 28 weeks pregnant if the partner has not received a pertussis booster in the last ten years
- parents or guardians of babies born on or after 1 June 2015, if their baby is under six months of age and they have not received a pertussis booster in the last ten years
- children up to and including nine years – catch-up immunisations are available for children who have not been fully vaccinated
- vulnerable eligible people aged ten years and over – catch-up immunisations are available for people who have not been fully vaccinated.
- More information on this vaccine can be found on the Victorian Government, Department of Health and Human Services website

If you are not sure whether you are eligible for immunisation against whooping cough that is free of charge, ask your doctor.

## Adult immunisation

Childcare, healthcare workers and some adults should also be vaccinated, especially those who are, or will be, in close contact with babies. The whooping cough vaccine for adolescents and adults also contains diphtheria and tetanus protection in a combination vaccine. Immunity provided by the vaccine can start to decrease after two years and stops completely by 10 years.

## Pregnancy and whooping cough immunisation

A combination vaccine against diphtheria, tetanus and whooping cough is recommended, preferably in the third trimester of every pregnancy or as soon as possible after the birth of your baby. Women who are breastfeeding can receive the combination vaccines. Speak with your doctor for more information.

## Immunisation and HALO

The immunisations you may need are decided by your health, age, lifestyle and occupation. Together, these factors are referred to as HALO.

Talk to your doctor or immunisation provider if you think you or someone in your care has health, age, lifestyle or occupation factors that could mean immunisation is necessary. You can check your immunisation HALO using the Immunisation for Life infographic (pdf) downloadable poster.

## Where to get help

- Your doctor
- In an emergency, always call triple zero (000)
- Emergency department of your nearest hospital
- Your local government immunisation service
- Maternal and Child Health Line (24 hours) Tel. 132 229
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- Immunisation Section, Department of Health and Human Services, Victorian Government Tel. 1300 882 008
- National Immunisation Information Line Tel. 1800 671 811
- Pharmacist

## Things to remember

- Whooping cough (pertussis) is a very contagious respiratory infection caused by the bacterium *Bordetella pertussis*.
- The major symptom of whooping cough is the characteristic cough, which is often followed by a 'whooping' sound on inhalation.
- One in every 200 babies who contract whooping cough will die.
- Immunisation is the best way to reduce the risk of whooping cough.

**This page has been produced in consultation with, and approved by:**

DH - RHP&R - Health Protection - Communicable Disease Prevention and Control Unit

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