

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 for 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 aged less than six months. 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 prevent 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, which occurs in bouts of coughing
- 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 convalescent phase, the cough gradually decreases but can take weeks to disappear.

Babies are at increased risk

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 long periods of time)
- Pneumonia
- Inflammation of the brain
- Convulsions and coma
- Permanent brain damage
- Death.

How it is spread

The *Bordetella pertussis* bacterium is spread by air-borne 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) for whooping cough 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 parents and family members are the main source of whooping cough infection in their baby. A mother does not pass any protection against whooping cough on to her baby while pregnant or breastfeeding.

Diagnosis of whooping cough

Whooping cough should be diagnosed and treated immediately if there is a typical history of the disease. There are a number of tests, but they are not always reliable and may take weeks to become positive. Treatment should not be withheld while waiting for these results.

Treatment for whooping cough

In its early stages, the symptoms of whooping cough can be reduced by taking antibiotics. Treatment will reduce the risk of passing the infection to others, if it is given in the first 21 days of the illness. Members of the infected person's household are at increased risk of acquiring the disease and are usually prescribed a strong antibiotic such as erythromycin as a preventative measure, regardless of whether or not they are fully immunised.

Immunisation can prevent illness

A combined vaccine against whooping cough and other diseases is available under the National Immunisation Schedule. In Victoria, it is given free of charge to all children. Children need all of the following injections in order to be fully protected. Some adults should also be vaccinated. Immunity provided by the vaccine fades after six to ten years.

Babies and children

The vaccine is given free to young children when they are:

- **Two, four and six months of age** – diphtheria, tetanus, pertussis, hepatitis B, polio and haemophilus *influenzae* type b vaccine. The two-month vaccine can be given as early as six weeks of age
- **Four years of age** – diphtheria, tetanus, pertussis and polio vaccine.

Adolescents

The vaccine is given to adolescents when they are:

- **In Year 10 at secondary school** – adolescents receive a booster dose of diphtheria, tetanus and pertussis vaccine.

Adults

The Victorian government currently provides a free whooping cough vaccine for partners of pregnant women, parents of new born babies (including adoptive and foster parents). Partners of pregnant women should get the vaccine before the birth of the baby. Pregnant women should get the vaccination as soon as possible after the birth of the baby. This will be available free from some maternity hospitals, your doctor and some local councils until 30 June 2012. The free whooping cough vaccine also contains diphtheria and tetanus protection.

Other adults who should consider whooping cough immunisation include:

- People planning pregnancy
- Anyone regularly in contact with very young babies (for example, grandparents, adult siblings, childcare and healthcare workers, babysitters).

Some workplaces may fund or subsidise whooping cough immunisation or you may have to pay for the vaccine.

Before immunisation

Before you receive the vaccine, tell your doctor or nurse if you or your child:

- Has had a serious reaction to any vaccine or vaccine component (for example, neomycin)
- Is unwell on the day of immunisation (temperature over 38.5°C)

or if:

- You are pregnant.

Possible side effects of the vaccine

Immunisation prevents people from catching whooping cough or at least protects them from a severe bout should they become infected. Severe reactions to the vaccine are rare and they are much less common than the effects that occur with the disease itself.

Some of the mild side effects of the vaccine include:

- A mild temperature
- Irritability or crying. Your child may appear generally unsettled
- Drowsiness or tiredness
- Soreness and swelling in the area where the injection was given.

There is a very small risk of a serious allergic reaction to any vaccine. It is important to stay at the clinic where the immunisation was given for 15 minutes after the immunisation.

Reducing the side effects

Side effects of the vaccine may last one to two days and can be reduced by:

- Drinking extra fluids
- Placing a cold, wet cloth on the sore injection site
- Taking paracetamol to reduce any fever or discomfort – check the label for the correct dose (especially for children)
- Not overdressing.
- If you are concerned about any reaction to the vaccine, contact your doctor or hospital.

Where to get help

- Your doctor
- Your local maternal and child health nurse
- Nurse-on-Call Tel. 1300 606 024 – for expert health information and advice (24 hours, 7 days)
- Immunisation Section, Department of Health Victoria Tel. 1300 882 008
- Immunise Australia National Information Line Tel. 1800 671 811

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.
- It is possible to prevent whooping cough by immunisation.

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

Department of Health - Communicable Disease Prevention and Control Unit

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