

Whooping cough (pertussis)



Whooping cough (pertussis) is a bacterial infection of the nose and throat caused by *Bordetella pertussis*.



Whooping cough (pertussis) is a notifiable condition¹

How whooping cough is spread

Whooping cough is spread when an infected person talks, coughs or sneezes small droplets containing infectious agents into the air. The droplets in the air may be breathed in by those nearby. Infection may be spread by contact with hands, tissues and other articles soiled by infected nose and throat discharges. Whooping cough is highly infectious, spreading to 70 to 100% of susceptible household contacts and 50 to 80% of susceptible school contacts.

Whooping cough antibody levels reduce over time so antibodies transferred from the mother to the baby from a vaccination before pregnancy may not give adequate protection against whooping cough for the baby. However if a mother has a dose of whooping cough vaccine from 20 weeks of pregnancy, this can provide good protection for the baby until they can have their first vaccine at 6 weeks of age.

In recent years many cases of whooping cough have been recognised in adults and adolescents due to waning immunity. These individuals are a significant source for the transmission of infection to infants.

Epidemics usually occur every 3 to 4 years.

Signs and symptoms

The illness often begins with cold-like symptoms:

- > runny nose
- > sore watery red eyes
- > low-grade fever
- > general unwellness.

However, these symptoms are not present in all people.

After 3 to 7 days, a dry cough develops:

- > the cough is usually present for many weeks and may last for months.
- > the cough is classically paroxysmal, that is, a prolonged fit of coughing occurs.
- > frequently, the coughing is immediately followed by a deep breath in, resulting in the typical whoop – hence the name ‘whooping cough’ – but some people do not whoop.
- > the cough may be followed by vomiting.

Whooping cough kills about 250,000 children worldwide every year and many surviving children are left with brain damage. Other serious complications include:

- > pneumonia (lung infection or inflammation)
- > bleeding into the nose, eyes or brain
- > development of hernias.

Diagnosis

Diagnosis is most accurately made by PCR (polymerase chain reaction) testing in a pathology laboratory of mucus from the nose and throat, combined with clinical history, although blood tests are still used in some places.

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Incubation period

(time between becoming infected and developing symptoms)

4 to 21 days, most commonly 7 to 10 days.

Infectious period

(time during which an infected person can infect others)

Whooping cough is highly infectious when the 'cold-like' symptoms occur in the early stages. Without treatment, a person is infectious for the first 3 weeks of coughing. With appropriate antibiotic therapy, the person is no longer infectious to others 5 days after starting antibiotics.

Treatment

Appropriate antibiotic therapy, given in the early stages of infection, may prevent or lessen the severity of symptoms. Treatment within 2 weeks of onset of the cough reduces the spread of the disease, though it may not lessen symptoms.

Prevention

- > Protection against whooping cough is provided by a whooping cough vaccine as part of the routine childhood immunisation. The whooping cough vaccine, in combination with other vaccines, is funded at 6 weeks of age, 4 months and 6 months with boosters at 18 months, 4 years and in adolescence. Whooping cough vaccine is recommended from 20 weeks of pregnancy (ideally between 20-32 weeks). It is also recommended for other groups. See the SA Health Vaccine page for further information, including who should be immunised and when.

- > Anyone, particularly childcare, preschool, school or work contacts of a person with whooping cough should seek medical advice if he or she develops any symptoms of whooping cough. A contact is any person who has been close enough to an infected person to be at risk of having acquired the infection from that person.
- > Cover your nose and mouth when sneezing or coughing. Dispose of soiled tissues appropriately. Wash hands after contact with soiled articles, such as tissues.
- > If there is a young child under 6 months of age in the same household as the person with whooping cough or a woman in the late stages of pregnancy, it is recommended that all household members receive preventive antibiotics. It is important that anyone with suspicious symptoms see their doctor so that an accurate diagnosis can be made and treatment commenced, if necessary.

Exclusion periods

- > Exclude a person with whooping cough from childcare, preschool, school and work until 5 days after starting antibiotic treatment. If not treated, he/she should be excluded for 21 days from the start of any cough. If working in a childcare setting, seek advice from SA Health's Communicable Disease Control Branch before returning back to work.
- > For exclusion of contacts in a childcare setting, seek advice from SA Health's Communicable Disease Control Branch. The exclusion of children who have been in contact with another child with whooping cough in a childcare setting depends on the age of the children in the childcare setting, their immunisation status and whether there have been other recent cases of whooping cough infection in the childcare setting.

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Useful links

- > SA Health: www.sahealth.sa.gov.au
 - Exclusion from childcare, preschool, school and work.
 - Immunisation
 - Vaccines
 - Notifiable conditions - what to know when you have one.

1 – In South Australia the law requires doctors and laboratories to report some infections or diseases to SA Health. These infections or diseases are commonly referred to as 'notifiable conditions'.

You've Got What? 5th Edition

Communicable Disease Control Branch

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The SA Health Disclaimer for this resource is located at www.sahealth.sa.gov.au/youvegotwhat

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This document has been reviewed and endorsed by SQCAG* for consumers and the community – February 2018.

*SA Health Safety and Quality Community Advisory Group.



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