

Whooping Cough (Pertussis)

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

The illness often begins with cold-like symptoms of runny nose, sore watery red eyes, low-grade fever and general unwellness, although these symptoms are not present in all people. After three to seven days, a dry cough develops. The cough is usually present for many weeks and may last for months. Coughing is classically paroxysmal, that is, a prolonged fit of coughing occurs. The coughing is immediately followed by a deep breath in, resulting in the typical whoop – hence the name ‘whooping cough’. Some people do not whoop, but coughing may be followed by vomiting.

Pertussis kills about 250,000 children worldwide every year and many surviving children are left with brain damage. Other serious complications include pneumonia, bleeding into the nose, eyes or brain, and development of hernias.

Pertussis is highly infectious, spreading by respiratory droplets to 70-100% of susceptible household contacts and 50-80% of susceptible school contacts. Epidemics occur every three to four years.

Maternal antibody does not give adequate protection against pertussis, so babies can be infected before they are old enough to be vaccinated.

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

Diagnosis is most accurately made by PCR testing of mucus from the nose and throat, combined with clinical history, although blood tests are still used in some places.

Incubation period

(time between becoming infected and developing symptoms)

6 – 20 days, most commonly 7 – 10 days.

Infectious period

(time during which an infected person can infect others)

Pertussis 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 three weeks of onset of the cough reduces the spread of the disease, though it may not lessen symptoms.

Control of spread

- > Vaccination of infants at two, four and six months, followed by a booster dose at four years.
- > With older vaccines, side effects were more common as people got older, so vaccination was not recommended for people older than seven years. New vaccines have fewer of these side effects and a further single booster dose is now recommended in South Australia for:
 - school children in Year 9
 - parents planning a pregnancy
 - parents of a newborn baby, other adult household members, and grandparents if they will be in contact with the baby, before or as soon as possible after delivery
 - adults working with young children, especially child care workers in contact with very young infants
 - all health care workers, especially those caring for very young infants
 - adults who have had vaccination in the past are now encouraged to have a booster vaccination of the combined diphtheria-tetanus-pertussis vaccine (dTpa) at 50 years of age.

Whooping Cough (Pertussis) (cont.)

Control of spread cont.

- > Antibiotic treatment of the person with whooping cough and their household contacts will reduce the spread of the infection. It is important that anyone with suspicious symptoms see their doctor so that an accurate diagnosis can be made and treatment commenced, if necessary.
- > A person with whooping cough should be excluded from child care, preschool, school or work until five days after starting antibiotic treatment. If not treated, they should be excluded for 21 days from the start of symptoms.
- > Household and child care contacts (in the same child care group) of the case who have received less than three doses of a pertussis containing vaccine should be excluded from child care for 14 days from the last exposure to the infectious cases, unless they have already completed five days of recommended antibiotic treatment, in which case they may return.
- > Any child care, preschool, school or work contacts of a person with whooping cough should seek medical advice if they develop any symptoms.
- > In the case of a whooping cough epidemic, the guidelines for control of spread may change. The Health Department should be contacted for recommendations.



**Whooping cough (pertussis)
is a notifiable disease**

- > PCR
- > Immunisation