

Whooping Cough, Croup & Scarlet Fever



Whooping cough is a highly contagious respiratory infection caused by the B-pertussis bacteria, and derives its name from the "whooping" sound which occurs on the inward breath after a coughing spell.

What is whooping cough?

Whooping cough is contracted by coming into contact with airborne droplets from the coughs and sneezes of someone who has the infection. The illness usually manifests 8 - 10 days after exposure, and is most communicable in the earliest stages of the infection (up to two weeks after the cough starts).

The condition is characterised by severe, persistent coughing which is often so forceful that it can cause children to temporarily lose their breath and even vomit. Children may experience intense coughing spells every hour or so, which can be several minutes long, interrupting both their sleep and the whole family's.

The sheer tenacity of the condition accounts for the Chinese referring to it as the '100 day cough', as the cough usually lasts several weeks.

Whooping cough is at its most serious when it occurs in babies, especially if they are under 6 months, and can be life-threatening. The highest risk is to babies who are not immunised and are under six months, or to those only partially immunised. Over 830 of children hospitalised for whooping cough are under one year old.

Importantly, whooping cough is considered to be a vaccine preventable disease. The current Australian immunisation schedule is: 1st dose given at 2 months; 2nd at 4 months; with boosters given at 4 years, and again between 12 - 17 yrs.

In Australia, epidemics occur every 3 - 5 years, and are more prevalent in winter and spring. Outbreaks are smaller in vaccinated populations. Although the vaccine is not 100% effective, it protects most children and causes whooping cough to be less severe than it can be in non-immunised children.

Whooping cough is not just a childhood illness. Ninety percent of all cases occur in adults over the age of 20. Sometimes adults can be misdiagnosed due to the absence of the "whooping" sound that is normally a feature of the condition in young children.

The major symptom of whooping cough is the characteristic cough, which is often followed by a 'whooping' sound on inhalation.

Immunisation is the best way to reduce the risk of whooping cough.

Symptoms & treatments

In babies, whooping cough starts with flu-like symptoms: low-grade fever, runny nose, sneezing and a mild cough. This can last for 1 -2 weeks, and is followed by 4 - 8 weeks of severe coughing spasms. The infection causes a build-up of mucus in the windpipe, making it difficult for them to breathe, feed and sleep. Gagging or vomiting after a coughing fit can leave children exhausted, and they often have a poor appetite and weight loss due to the illness.

It is estimated that up to 80% of non-immunised family members may catch whooping cough from an infected child. Recommendations from the National Health and Medical Research Council are that antibiotics be prescribed for those family members who have close contact with a child with whooping cough. As of September 2008, liquid antibiotics (clarithromycin) have been available for children who find it hard to take antibiotic tablets.

In the presence of whooping cough, antibiotic treatment may also be prescribed for babies less than 12 months and children between 12 - 24 months who have had less than 3 doses of the whooping cough vaccine. Antibiotics are also recommended for any woman in her last month of pregnancy if she has been exposed to whooping cough, as well as for any child or adult who attends or works in a child care centre. If a non-immunised child contracts whooping cough, antibiotics may be prescribed to stop the spread of infection, and is most effective when given in the early stages of the illness.

There are generally few complications from immunisation against whooping cough. Some babies can become 'floppy' for a while after the injection and children may suffer from mild fever or irritability. Since the vaccine has been introduced, there have been fewer reports of sore injection sites.

Whooping cough can be best managed at home by: keeping the home free of irritants which aggravate coughing (such as aerosol sprays, tobacco smoke and fireplaces). Keep your child well rested and offer plenty of fluids to help thin mucus and prevent dehydration. Coughing suppressants are not advised for children with whooping cough, as the coughing action helps expel excess mucus from the airways, and is best left unimpeded.

Croup is a viral infection (a type of laryngitis) which involves an obstruction of the upper airway, mostly commonly affecting children under five years. Croup often begins like the common cold and comes about as a result of inflammation in the voice box and windpipe. Since croup is a virus, it does not require and will not respond to antibiotics.

Croup

In general, croup is a mild and common childhood illness that does not require pharmacological treatment. It is transmitted through airborne droplets from coughs and sneezes. In most cases, croup clears up with 3 - 5 days and can be managed at home. In some instances however, croup may worsen and may need medical intervention to help lessen the swollen airways and ease breathing.

Croup begins in a similar way to a cold (runny nose, sore throat, raised temperature) but develops quickly into a harsh 'croupy' cough. It is characterised by both the cough and the noisy, wheezy breathing (stridor). Symptoms often worsen at night due to the cool air.

If you are overly concerned or your child's condition worsens, see your doctor or local emergency department immediately, especially if: there are signs of respiratory distress, the breastbone sucks in, and your child is struggling to breathe. If the noisy breathing continues when your child breathes in when resting, this is also a sign that they should be checked by your GP.

There are many ways to help deal with croup at home. Keep your child calm and as rested as possible, as activity or anxiety can increase their breathing difficulties. The wheezy chest can be frightening to a young child so ensure they are comforted and reassured, and monitor them as closely as possible. Encourage your child to drink plenty of fluids as this thins the mucus and makes it easier to cough. Warm soups and cool drinks may help. Keep the home environment smoke free.

For many years it was believed that steam therapy was a viable treatment for croup. The use of steam therapy, or vaporisers, is no longer recommended.





Scarlet fever is a bacterial infection which gives rise to a scarlet, sandpaper-like rash (on the chest, neck, armpits and groin) from which this illness derives its name.

Scarlet Fever

After an incubation period of 2 - 4 days symptoms occur which include: a high fever, headaches, nausea and vomiting, swollen lymph glands in the neck, sore throat and enlarged tonsils. The cheeks may be flushed and there may be a pale area around the mouth. Along with the mass of tiny red spots, is the characteristic 'strawberry tongue'.

Scarlet fever is contagious and poses a risk of infection for others, being communicable through the sneezes and coughing of an infected child.

Historically, scarlet fever was a serious, often life-threatening illness but is now relatively rare and much milder. It is easily controlled by antibiotics.

Scarlet fever, also known as scarlatina, is an infection that can develop in people who have strep throat. The infection is caused by group A streptococcus bacteria, which are the same bacteria that cause strep throat.

The rash appears 12 - 48 hours after the fever but fades within 4 - 6 days, after which the skin peels (much like after sunburn).

The treatment of choice is antibiotics, and there should be signs of improvement 2 -3 days after starting a course. Ensure the entire course is taken. Diagnosis is generally made via a throat swab culture, or blood tests.

Home treatments include: bed rest, cool sponge baths to help fevers naturally abate, paracetamol (if fevers get too high and if your child is uncomfortable) and plenty of fluids to flush out the toxins. Especially helpful are freshly squeezed citrus juices, raw juices (such as carrot and apple) and warm, nutritious soups.

Did you know? Scarlet fever has a long and notable literary history. It was popularly quoted in early 19th and 20th Century literature, the most well-known being *The Velveteen Rabbit* (1922) by Margery Williams, and *Little Women* (1868) by Mary Alcott.





Things to remember about croup

- Croup is a viral infection of the throat and windpipe that causes noisy breathing, a hoarse voice and a harsh, barking cough.
- Croup usually starts as a 'cold' for a few days, then the noisy breathing and cough start (usually at night).
- You can treat mild croup at home if your child has no breathing problems or noisy breathing when they are not crying.
- If there are signs of increasing windpipe obstruction, seek urgent medical help.

Want more information?

For more information, talk to your doctor

Healthdirect

Phone 1800 022 222, 24 hours To speak to a registered nurse
www.healthdirect.gov.au

Parentline NSW

Phone 1300 1300 52
For advice on child health and parenting
www.parentline.org.au

See also:

www.rch.org.au
www.healthdirect.gov.au
<https://www.schn.health.nsw.gov.au/>

Local Services

Lismore Community Health - Child and Family

Phone 02 6620 7687
8am – 5:00pm, Monday to Friday to make an appointment.

Child and Family Health Centre:

Phone 02 6625 0111
9am – 4:30pm, Monday to Friday to make an appointment.