

What is whooping cough or pertussis? Symptoms, signs, treatment, and its prevention

Whooping cough or pertussis is a type of infection caused by bacteria called *Bordetella pertussis*. It can result in very mild symptoms to very serious symptoms and can be even fatal especially in young neonates.

Cause of whooping cough:

Whooping cough is caused by a bacteria called *Bordetella pertussis*. It can be transferred through coughing in microdroplets. It is a very transmissible disease. People can transfer it from the start of their disease to almost two weeks after that. The transmission stops after that though the cough may persist for much longer. This bacterium binds to fine hair on the cells lining our throat and can cause significant swelling, irritation and cough. It can spread down to the lungs and can cause buildup of mucus in the airways.

Symptoms and signs:

Early symptoms (stage 1) can be very mild and similar to any flu-like illness. These include runny nose, sore throat, fever, body aches, cough and sometimes mild breathlessness. Early symptoms can last for a couple of weeks. If people have got poor immunity, symptoms can be persistent for much longer, up to 10 weeks.

In young children, there may not be any significant cough but with the episode of apnea (stopping of breathing completely) can develop which can cause the blue color to the face. This can be associated with high grade fever and sometimes seizures resulting in brain injury.

In stage two of disease, it is very common to develop a prolonged coughing fit associated with the sometimes vomiting after coughing fit.

The classical high pitched "whoop" can develop in some patients. This whoop happens when they breathe in after a cough fit. Coughing can be severe enough to bruise the chest muscles and sometimes even can lead to cracking or fracture of a rib.

Complications:

Prolonged apnea can lead to brain damage which is a serious complication in young children less than 12-month-old. It can also be associated with the seizure activity. It can also get complicated by pneumonia causing a low oxygen saturation and associated issues. Fatality rate is about 1% in children less than 12 months of age.

Transmission:

Symptomatic patients can transfer disease to other people through micro air-droplets, up to two weeks from the initial symptoms. People may have very minimal symptoms and they may not be even aware that they have whooping cough but they can transfer to vulnerable population. This is especially true for adults who have had other previous vaccination as they only get mild symptoms.

Diagnosis:

Diagnosis is made by typical symptoms and confirmed by taking a swab from back of their throat. Blood test can be used to confirm the diagnosis.

Treatment:

Treatment of pertussis requires antibiotics which work against this type of bacteria. It is important to remember that the cough may persist for much longer despite taking antibiotic though it reduces the severity of the cough but also reduces the risk of transmission to other people.

Managing symptoms at home:

It is important to stay well hydrated and keep a medication like paracetamol for fever. Using humidifier can be helpful. We need to avoid any irritant that can make the cough worse. If vomiting is a big problem, having multiple but small meals can be helpful. Using plenty of liquids, fluids and fruit juices can be very good.

When to go to hospital

If the baby gets apnea episodes where they stop their breathing and turning blue or they're unable to feed and looking dehydrated or have persistent fever, it is recommended to go to hospital for further assessment. They may need admission depending on the severity of the illness.

Vaccination:

Almost all childhood vaccination schedules now include whooping cough vaccination. The immunity though wanes off and it is recommended for adults to have a booster vaccination especially if they've got any vulnerable people or any neonate living in the household.

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