

# Pertussis (Whooping Cough)

Patient and Family Education

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**This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.**

## What is pertussis?

Pertussis, also known as “whooping cough”, is an infection of the lungs and respiratory (breathing) system caused by a germ *Bordetella pertussis* (or *B. pertussis*). Once the bacteria are in the child's airways, the airways start to swell and produce mucus.

Pertussis can occur at any age. The symptoms are most severe and the illness can be very serious for:

- Babies younger than 1 year of age.
- Children with other respiratory problems and diseases like Cystic Fibrosis, bronchopulmonary dysplasia (BPD) and other congenital lung disorders.

The most common sources of infection for babies and young children are:

- Teen and adult family members
- Grandparents
- Other adult caretakers
- Other children, ages 11 to 18 years, whose protection from the vaccine has started to fade.

This happens when these persons have not had a recent pertussis booster shot and get infected.

## What are the possible symptoms?

Your child may have one or more of these:

- The first symptoms of pertussis are like a common cold:
  - Runny nose or congestion
  - Sneezing
  - Mild cough
  - Low-grade fever (less than 100.4°F)
- Usually after 1 to 2 weeks, the dry cough turns to severe coughing spells. A “whoop” sound may be heard in older children when they breathe in.
  - The coughing spells may last a minute or more and may cause children to vomit. They may also cause pauses in a baby's breathing.
  - These spells may last up to 10 weeks.
- Untreated pertussis may cause severe illness and even death, especially in babies.
- Symptoms in teens and adults are often mild, with cold symptoms followed by prolonged cough.

## How does pertussis spread?

Pertussis is very contagious (spreads easily from one person to another).

- The bacteria spread from person to person through tiny drops of fluid from an infected person's nose or mouth. You cannot see them, but they are there.
  - They may become airborne when the person sneezes, coughs or laughs.

**In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.**

## **Pertussis, continued**

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- A person can then become infected by breathing in the drops or getting the drops on his hands and then touching the mouth or nose.
- The incubation period (the time between getting infected and the start of symptoms) is usually 7 to 10 days but can be as long as 21 days.

Washing your hands is one of the easiest ways to help prevent the spread of pertussis, along with covering your mouth and nose when you sneeze or cough.

### **Can pertussis be prevented?**

Whooping cough can be prevented with the pertussis vaccine, which is part of the DTaP (diphtheria, tetanus, acellular pertussis) vaccine. It is given in 5 separate doses at these ages:

- 2, 4 and 6 months of age
- 15 to 18 months of age
- 4 to 6 years of age

Sometimes the protection from the vaccine can fade over time.

- For this reason, the American Academy of Pediatrics (AAP) suggests children, ages 11 to 18 years, get a booster shot of the new combination vaccine called Tdap.
- All adults over 19 who have not received the Tdap should have a dose. This is especially important for people around babies under 1 year of age. Talk with your doctor if you have not had a booster shot recently.
- The vaccine is also advised for all pregnant women during the second half of each pregnancy, regardless of whether they already received the vaccine or when it was last given.

It may also help to keep your baby or child away from crowded places and away from people who have coughs and colds.

### **What medical tests could my child have?**

Your child may have one or more of these tests:

- A test to check for the germs that cause pertussis. This is done by testing mucus samples from the nose and throat for *Bordetella Pertussis* bacteria.
- Blood tests
- A chest X-ray

### **What is the treatment for pertussis?**

Some general guidelines for pertussis treatment are listed here:

- Even though many children with pertussis get better on their own without treatment, your child may receive an antibiotic (medicine to treat the infection). Antibiotics do not cure pertussis, but they can help to:
  - Decrease the symptoms.
  - Shorten the infection time by 5 days.
  - Stop the spread of the pertussis germ to others.
    - Your child will not be able to spread the germ after taking antibiotics for 5 days.
    - Without antibiotics, your child may be able to spread the germ for a month or longer.
- Cough medicines usually do not help and are never advised for children under 6 years old.

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## **Pertussis, continued**

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- If other family members or close friends have been exposed, they may need to be treated with an antibiotic. They may also need the pertussis vaccine.

### **If your child is treated at home:**

- Treatment may include a cool-mist humidifier to help keep respiratory secretions loose. If you use a humidifier, place it by your child's room or play area.
  - Change the water and clean the humidifier each day.
  - Follow the cleaning instructions that came with the machine, so it does not grow germs and mold.
  - Hot steam vaporizers are not safe and are not recommended. They may burn your child.
- Encourage your child to drink lots of fluids.
- Watch for signs of dehydration. This may include:
  - Thirst
  - A dry mouth or tongue
  - Irritability or restlessness
  - Fewer trips to the bathroom to urinate (or in infants, fewer wet diapers)
  - Sunken eyes
  - Lethargy
- Offer your child smaller, more frequent meals during the day to help keep him from vomiting (throwing up).
- Do not smoke at home or use other things that might cause more coughing, such as aerosol sprays. Also, have your child avoid smoke from cooking, fireplaces and wood-burning stoves.

Severe cases of pertussis may need to be treated in the hospital, especially babies and young children. They are at great risk for complications like pneumonia, which occurs in about 1 in 5 babies under 1 year who have pertussis.

### **If your child is treated in the hospital, he may need:**

- Isolation to keep him from infecting others
- Breathing treatments
- Oxygen
- Intravenous (IV) fluid to keep him hydrated. This is especially important if your child shows signs of dehydration or has a hard time eating and drinking.

### **When can my child return to school or day care?**

If the doctor even thinks that your child may have pertussis, you will need to keep him home from school or day care until you get test results. This will help stop germs from spreading to others.

- It may take up to 3 to 4 days to get test results. We will call you once we have the results.
- If the test shows that your child does NOT have pertussis, he may return to school or day care if he feels better and does not have a fever without using medicine.
- If the test shows that your child DOES have pertussis, keep him home until he completes 5 days of antibiotics.

### **When should I call the doctor?**

Call 911 or your local ambulance service right away if your child:

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## Pertussis, continued

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- Is so lethargic that he hardly responds to you.
- Is working **very** hard to breathe or finds it hard to take a breath.
- Has chest retractions (skin pulling in around the ribs and chest when breathing).
- Grunts when he breathes.
- Has a blue or dark purple color to the nail beds, lips or gums.
- Stops breathing for more than 5 seconds.
- Cannot speak while trying to breathe.
- Has any breathing problem that needs care **right away**.

If your child has not yet had pertussis, call your child's doctor if he has:

- Been exposed to someone with pertussis or if you think he may have pertussis, even if he has had his vaccines.
- A cough that lasts longer than a week and he has not yet been seen by a doctor.
- A cough that causes vomiting or breathing problems.
- For children older than 1 year, a cough that has a whooping sound when he breathes in.

If your child is being treated for pertussis, call your child's doctor if:

- Your child has **continued** lethargy or irritability (does not smile or show interest in play for at least a few minutes during a 4-hour period).
- Your child wheezes or breathes harder than he did when he was seen by the doctor.
- Your baby is unable to breathe and suck at the same time or chokes when he sucks.
- Your child has fast, shallow breathing.
- Your child has a tight feeling in the chest.
- You see signs of dehydration (drying out):
  - No urine in 6 hours in an baby younger than 1 year of age
  - No urine in more than 8 hours in a child older than 1 year of age
  - No tears when crying
  - Sunken eyes
  - Dry lips and mouth
- Your child has a fever over 100.3°F or 38°C.
- Your child is unable to keep fluids down or vomits more than 2 times a day.
- You have any concerns about how your child looks or feels.

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