



## Pertussis – Frequently Asked Question

### **What is pertussis?**

Pertussis, a respiratory illness commonly known as whooping cough, is a contagious disease caused by a type of bacteria called *Bordetella pertussis*. These bacteria attach to the cilia (tiny, hair-like extensions) that line a part of the upper respiratory system. The bacteria releases toxins, which damage the cilia and cause inflammation (swelling).

### **Is pertussis treatable?**

Yes. Pertussis is generally treatable with antibiotics. Early treatment is very important. Treatment may make your infection less severe if started early, before coughing fits begin. Treatment can also prevent spreading the disease to close contacts (people who have spent time around the infected person).

Bottom line – treatment will ease symptoms and prevent spreading the disease.

### **How is pertussis spread?**

Pertussis is only found in humans and is spread person-to-person. The pertussis bacteria is present in droplets contained in the coughs or sneezes of infected individuals. Anyone near may breathe in those droplets and become infected. It is important to stress that pertussis is spread by **close** contact with those who are infected.

### **How do I know if I have been identified as a close contact of someone who has been diagnosed with pertussis?**

Ravalli County Public Health is working closely with area schools to interview every person with a laboratory-confirmed case of pertussis to identify their close contacts. Ravalli County Public Health and/or the School District will then contact you if you or child has been identified as a close contact of a confirmed case.

### **Who qualifies as a close contact?**

Using guidance from the U.S. Centers for Disease Control and Prevention (CDC), a close contact within a school setting is defined as someone who has “*direct contact with respiratory, oral, or nasal secretions from a person who has pertussis and those who have direct face-to-face contact or who share a confined space in close proximity for a prolonged period of time with a symptomatic case-patient.*”

In practice, interviews with students, parents, and school staff, as well as classroom seating charts, are used to identify potential close contacts. Any student who sits near (next to, in front of, behind) an infected person in a classroom setting or any student or staff who have direct face-to-face contact or prolonged contact in a closed space, are considered close contacts.

Close contacts are also identified in home and work settings. Careful attention is made to identify persons who may be medically vulnerable – babies under the age of six months, the elderly, or people with underlying health problems – who are close contacts of a confirmed case.

**What happens if my child is a close contact?**

The answer depends on a few factors; 1) does your child have symptoms, 2) what is their vaccination status, 3) does your child have health risks, and 4) what are the details of the possible contact, i.e. school or home circumstances. Even if your child does not have symptoms, the Public Health Nurse may recommend you take your child to your primary care physician to obtain antibiotics to prevent symptoms from occurring. Parents of contacts are asked to watch for symptoms developing in your child for a period of three weeks unless antibiotics are given. Close contacts, who **are exhibiting symptoms** of pertussis, are advised to take antibiotics and have a laboratory test to determine whether you have pertussis.

**What are the symptoms of pertussis?**

The disease usually starts with cold-like symptoms and maybe a mild cough. After 1 to 2 weeks, severe coughing can begin. Unlike the common cold, pertussis can become a series of coughing fits that continues for weeks.

In infants, the cough can be minimal or not even there. Infants may have symptoms known as “apnea.” Apnea is a pause in the child’s breathing pattern. Pertussis is most dangerous for babies. More than half of infants younger than 1 year of age who contract the disease must be hospitalized.

Pertussis can cause violent and rapid coughing, repeatedly, until the air is gone from the lungs and you are forced to inhale with a loud “whooping” sound. This extreme coughing can cause you to throw up and be very tired. The “whoop” is often not there and the infection is generally milder (less severe) in teens and adults, especially those who have been vaccinated.

Early symptoms can last for 1 to 2 weeks and usually include:

- Runny nose
- Mild, occasional cough
- Apnea – a pause in breathing (in infants)

Because pertussis in its early stages appears to be nothing more than the common cold. It is often not suspected or diagnosed until the more severe symptoms appear. Infected people are most contagious during this time, up to 2 weeks after the cough begins. Antibiotics may shorten the amount of time someone is contagious.

As the disease progresses, the traditional symptoms of pertussis appear and include:

- Paroxysms (fits) of many, rapid cough followed by a high-pitch “whoop”
- Vomiting (throwing up)
- Exhaustion (very tired) after coughing fits

The coughing fits can go on for 10 weeks or more.

Although you are often exhausted after a coughing fit, you usually appear fairly well in-between. Coughing fits generally become more common and severe as the illness continues, and can occur more often at night. The illness can be milder (less severe) and the typical “whoop” absent in children, teens, and adults who have been vaccinated.

Recovery from pertussis can happen slowly. The cough becomes less severe and less common. However, coughing fits can return with other respiratory infections for many months after pertussis started.

**How can I prevent pertussis?**

Over the long term, the best way to prevent pertussis (whooping cough) among infants, children, teens, and adults is to get vaccinated. Annual outbreaks in Ravalli County are the reason Public Health works so hard to convince families to follow the CDC’s recommended vaccine schedule, which includes a series of vaccinations against pertussis.

During any outbreak, it is important to keep infants and other people at high risk for pertussis complications away from infected people. If you or your child has been identified as a close contact of someone who has the disease, it is important to follow accepted medical guidelines, which call for a round of preventative antibiotics for all those identified a close contacts.

**If vaccines are so important, why are immunized kids getting sick?**

No vaccine is 100 percent effective, and no community is 100 percent vaccinated. Also, it is important to know vaccine immunity wanes over time. As a result, high school students are more likely to contract the disease as they get older. We do know, however, that vaccinated people who contract the disease tend to have a less severe illness than children with no immunity.

The huge benefit of vaccines is evident by examining mortality rates from pertussis in the United States before and after vaccines. Before a pertussis vaccine was developed, an average 4,000 people died each year in the United States from the disease. Since the advent of a vaccine, an average of 27 people die from the disease, according to a study published by the Journal of the American Medical Association. The pertussis vaccine saves thousands of lives each year.

**Why isn't everyone immunized?**

It is strongly recommended that all students receive all vaccinations recommended by the CDC's Advisory Committee on Immunization Practice (ACIP). The ACIP recommendations include a series of vaccines against pertussis. However, Montana state law allows parents to enroll their children in school without being fully immunized if they submit a medical or religious exemption. When parents submit that exemption, they are asked to sign a form stating they understand their child may be excluded from school in the case of a disease outbreak for which their child is unimmunized.

**My child has an exemption from immunization. What procedures must be followed?**

Public Health is working closely with schools, physicians, infectious disease experts, and partners with the Montana Department of Public Health and Human Services to asses exemptions of students. Parents of students will be contacted through the School District if their student needs to be excluded. These are not easy decisions, nor decisions that are made lightly.

**What if I don't want my child to take antibiotics?**

Parents with concerns about antibiotics should discuss those concerns with their primary care physician. They should also know the CDC guidance during a pertussis outbreak is to use antibiotics as a preventative measure for people who have been designated as close contacts of a confirmed case.

Public Health understands the concerns some parents may have about providing antibiotics to students who are not symptomatic. They should know, however, that it is accepted medical practice to utilize antibiotics in this manner during an outbreak. Careful and measured use of antibiotics is always advised.

**How do I find out more about pertussis?**

The Centers for Disease Control and Prevention maintains an extensive compilation of information about pertussis on its web site: <http://www.cdc.gov/pertussis/>. Most of the information here was drawn from CDC literature.