

Plague

Frequently Asked Questions

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What is Plague?

Is a contagious, often fatal epidemic disease caused by the bacterium, *Yersinia pestis*, transmitted from person to person or by the bite of fleas from an infected host, especially a rat, and characterized by chills, fever, vomiting, diarrhea, and the formation of buboes. There are three major forms of the disease: bubonic, septicemic, and pneumonic.

What are the different forms of plague?

Bubonic plague, septicemic plague and pneumonic plague.

How is plague transmitted?

Plague is transmitted by fleas that become infected with bacteria *Yersinia pestis*.

How do people get plague?

By the bite of fleas infected with the plague bacteria.

What is the basic transmission cycle?

Fleas become infected by feeding on rodents, such as the chipmunks, prairie dogs, ground squirrels, mice, and other mammals that are infected with the bacteria *Yersinia pestis*. Fleas transmit the plague bacteria to humans and other mammals during the feeding process. The plague bacteria are maintained in the blood systems of rodents.

Could you get plague from another person?

Yes, when the other person has plague pneumonia and coughs droplets containing the plague bacteria into air that is breathed by a non-infected person.

What are the signs and symptoms of plague?

The typical sign of the most common form of human plague is a swollen and very tender lymph gland, accompanied by pain. The swollen gland is called a "bubo" (hence the term "bubonic

plague"). *Bubonic plague* should be suspected when a person develops a swollen gland, fever, chills, headache, and extreme exhaustion, and has a history of possible exposure to infected rodents, rabbits, or fleas.

- *Septicemic plague* - This sickness would happen when the contagion poisoned the victim's bloodstream. Victims of Septicemic Plague die swiftly, often before any notable symptoms have a chance to develop.
- *Pneumonic plague* - The victims of Pneumonic Plague had no buboes, but they suffer severe chest pains, sweat heavily, and cough up blood. Pneumonic plague is airborne. It is contracted by breathing the infected water droplets breathed (or coughed) out by a victim of the disease.

What is the incubation period of plague?

A person usually becomes ill with bubonic plague 2 to 6 days after being infected. When bubonic plague is left untreated, plague bacteria invade the bloodstream. When plague bacteria multiply in the bloodstream, they spread rapidly throughout the body and cause a severe and often fatal condition. Infection of the lungs with the plague bacterium causes the pneumonic form of plague, a severe respiratory illness. The infected person may experience high fever, chills, cough, and breathing difficulty, and expel bloody sputum. If plague patients are not given specific antibiotic therapy, the disease can progress rapidly to death.

What is the mortality rate of plague?

About 14% (1 in 7) of all plague cases in the United States are fatal.

How many cases of plague occur in the U.S.?

Human plague in the United States has occurred as mostly scattered cases in rural areas (an average of 10 to 20 persons each year). Globally, the World Health Organization reports 1,000 to 3,000 cases of plague every year.

How is plague treated?

According to treatment experts, a patient diagnosed with suspected plague should be hospitalized and medically isolated. Laboratory tests should be done, including blood cultures for plague bacteria and microscopic examination of lymph gland, blood, and sputum samples. Antibiotic treatment should begin as soon as possible after laboratory specimens are taken. Streptomycin is the antibiotic of choice. Gentamicin is used when streptomycin is not available. Tetracyclines and chloramphenicol are also effective. Persons who have been in close contact with a plague patient, particularly a patient with plague pneumonia, should be identified and evaluated. The U.S. Public Health Service requires that all cases of suspected plague be reported immediately to local and state health departments and that the diagnosis be confirmed by CDC. As required by the International Health Regulations, CDC reports all U.S. plague cases to the World Health Organization.

Is the disease seasonal in its occurrence?

No, plague can be acquired at anytime during the year.

Who is at risk for getting plague?

Outbreaks in people occur in areas where housing and sanitation conditions are poor. These outbreaks can occur in rural communities or in cities. They are usually associated with infected rats and rat fleas that live in the home.