



Pneumonic Plague Fact Sheet

What Is Pneumonic Plague?

Plague is a disease caused by *Yersinia pestis* (*Y. pestis*), a bacterium found in rodents and their fleas in many parts of the world.

How Do You Get It?

Pneumonic plague occurs when *Yersinia pestis* infects the lungs. A person could get the disease by breathing in the disease particles. This could happen in an aerosol release during a bioterrorism attack. Pneumonic plague is also passed on by breathing in the disease from the respiratory droplets (saliva or phlegm) of a person or animal with the disease. Respiratory droplets are spread mostly by coughing or sneezing. Getting infected in this way usually requires direct and close (within 6 feet) contact with the ill person or animal. The disease may also occur if a person with bubonic or septicemic plague is not treated and the bacteria spread to the lungs.

Y. pestis is easily destroyed by sunlight and drying. Even so, when released into air, the bacterium will survive for up to one hour, depending on conditions.

The pneumonic plague is different from the bubonic plague in the way it is passed on and in symptoms. Both diseases are caused by the same bacterium. Pneumonic plague can be passed from person to person; bubonic plague cannot. Bubonic plague is passed on through the bite of an infected flea or exposure to infected material through a break in the skin. Symptoms include swollen, tender lymph glands called buboes. If bubonic plague is not treated, the bacteria can spread through the bloodstream and infect the lungs, causing pneumonic plague.

How Dangerous Is Pneumonic Plague?

Without early treatment, pneumonic plague usually leads to breathing failure, shock, and rapid death.

The World Health Organization reports 1,000 to 3,000 cases of plague worldwide every year. About 5 to 15 cases occur each year in the western U.S. These cases are usually scattered and occur in rural to semi-rural areas. Most cases are of the bubonic form of the disease. Naturally occurring pneumonic plague is uncommon, although small outbreaks do occur. With standard public health response measures, it is easy to control both types of plague.

What Are the Symptoms?

Patients usually have fever, weakness, and quickly developing pneumonia with shortness of breath, chest pain, cough, and sometimes bloody or watery sputum. Nausea, vomiting, and abdominal pain may also occur.



How Soon Do Infected People Get Sick?

Someone exposed to *Y. pestis* through the air—either from an aerosol release or from close and direct exposure to someone with plague pneumonia—would become ill within 1 to 6 days.

How Is Pneumonic Plague Treated?

To prevent a high risk of death, antibiotics should be given within 24 hours of the first symptoms. Several types of antibiotics are effective for curing the disease and for preventing it. Early in the response to a bioterrorism attack, these drugs would be tested to determine which is most effective against the particular weapon that was used.

National and state public health officials have large supplies of drugs needed in the event of a bioterrorism attack. These supplies can be sent anywhere in the U.S. within 12 hours.

Can Pneumonic Plague Be Prevented?

Currently, there is no plague vaccine in the U.S.. Research is in progress, but we are not likely to have vaccines for several years or more.

People having direct and close contact with someone with pneumonic plague should wear tightly fitting, disposable surgical masks. Patients with the disease should be isolated and medically supervised for at least the first 48 hours of antibiotic treatment. People who have been exposed to a contagious person can be protected from the plague by getting prompt antibiotic treatment.

People who have had close contact with an infected person can greatly reduce the chance of getting sick if they begin treatment within 7 days of their exposure. Treatment consists of taking antibiotics for at least 7 days.

What Should I Do if I Think I *Have* Pneumonic Plague?

If you are showing symptoms of pneumonic plague infection, call your health-care provider right away. To prevent illness, a person who has been exposed to pneumonic plague must receive antibiotic treatment without delay. If an exposed person becomes ill, antibiotics must be administered within 24 hours of their first symptoms to reduce the risk of death.

What Should I Do if I Think I Have Been *Exposed* to Pneumonic Plague?

Get immediate medical attention. Tell the authorities: Immediately notify local or state health departments so they can begin to investigate and control the problem right away. If bioterrorism is suspected, the health departments will notify the CDC, FBI, and other authorities.

Excerpted from the CDC website: <http://www.bt.cdc.gov/agent/plague/index.asp>