

West Virginia Department of Health and Human Resources Information for the Public - Plague

What is plague?

Plague is an infectious disease of animals and humans caused by the bacteria *Yersinia pestis*. Widespread epidemics of plague have had an enormous impact on human history: the first recorded plague epidemic began in Egypt in 541 AD and spread throughout Africa, Europe, and Asia killing approximately 50% of the population; the “Black Death” or “Great Pestilence” that began in 1346 was responsible for approximately 50 million deaths in Africa, Asia, and Europe; and the 1855 epidemic that began in China ultimately killed over 12 million people in India & China. *Y. pestis* is found naturally in rodents (rats, ground squirrels, prairie dogs, and other rodents on every continent except Australia) and their fleas. Plague may be transmitted to humans through the bite of an infected flea. Use of plague as a biological weapon would most likely be as an aerosol of the bacteria, entering the body through the lungs, resulting in what is known as pneumonic plague.

What are the symptoms of pneumonic plague?

- Initial symptoms are fever, shortness of breath, and sometimes bloody or watery sputum.
- Nausea, vomiting, abdominal pain, and diarrhea may also occur.
- Pneumonia progresses to septic shock and death if not treated.
- The time from inhalational exposure to death in humans before antibiotics were available for treatment was 2-6 days.

How soon after exposure would symptoms begin?

Symptoms appear in approximately 2-4 days following inhalation exposure to *Y. pestis*, but may appear from 1-6 days following exposure.

Can pneumonic plague be spread person to person?

- Person to person transmission occurs only in face-to-face contact with ill persons.
- Wearing a simple facial mask by the infected person and all close contacts significantly decreases the likelihood of pneumonic plague spreading.
- Prophylactic antibiotic treatment is highly effective in preventing pneumonic plague in those having face-to-face contact with infected persons.

Can plague be treated?

Early administration of certain antibiotics can be effective.

How likely is it that I will be exposed to plague?

Plague does not occur naturally in West Virginia. Historically, in the United States, the individual risk of disease from a bioterrorist attack has been very, very low.

What could be done in the event of an intentional release of plague?

Early recognition is key to managing cases of plague. Ill persons could be treated and appropriately isolated to prevent further spread. Public health officials, working rapidly, may be able to identify exposed persons and recommend preventive antibiotics for those at risk.