

PLAGUE

Plague is an infectious disease of animals and humans caused by the bacterium *Yersinia pestis*. There are two types of plague: bubonic and pneumonic.

TRANSMISSION

Plague is a zoonotic disease of rats, mice, and ground squirrels caused by the Gram-negative bacterium *Yersinia pestis*. Fleas can become infected by feeding on the rodents and can transmit the disease to humans. Humans would develop the bubonic form of plague, with a swollen, extremely tender lymph node or “bubo”. The bubonic form may progress to the bloodstream (septicemic plague) or the lungs (pneumonic plague). An intentional aerosol dissemination of *Yersinia pestis* would produce an outbreak of primary pneumonic plague.

SYMPTOMS

The incubation period for plague is 1 to 7 days. Primary plague pneumonia is 1 to 4 days. Bubonic plague: Initial signs and symptoms may be non-specific with fever, chills, malaise, myalgia, nausea, prostration, sore throat, and headache. The initial symptom is commonly a swollen, inflamed, and tender lymph gland in the body. Secondary involvement of the lungs results in pneumonia.

Pneumonic plague: Respiratory droplets may serve as the source of transmission in those with pneumonic plague. Symptoms begin with fever, malaise, and a feeling of tightness in the chest. Cough, productions of sputum, dyspnea, and cyanosis develop later in the course.

WHO IS AT RISK?

Bubonic and septicemic plague does not spread person to person. Large respiratory droplets transmit pneumonic plague. You can breathe tiny particles into your lungs if you have close contact with somebody with the disease.

TREATMENT

Early administration of antibiotics is critical, as pneumonic plague is inevitably fatal if therapy is not begun within 24 hours of the onset of symptoms. Streptomycin, gentamicin, doxycycline, or ciprofloxacin should be given for 10-14 days. Chloramphenicol is the drug of choice for plague meningitis.

PREVENTION

Anyone exposed to pneumonic plague should be provided chemoprophylaxis and monitored daily for seven days. In addition to standard precautions, use and limit the movement and transport of the patient from the room to essential purposes only. Use droplet precautions by wearing the appropriate mask when working within three feet of the patient.