

### **What is plague?**

Plague is a disease caused by *Yersinia pestis* that affects rodents (e.g., squirrels, prairie dogs, or mice), other mammals (e.g., rabbits or hares), and humans. These bacteria are found in many areas of the world, including the western United States. There are three forms of plague: bubonic (lymph node infection), pneumonic (lung infection) and septicemic (bloodstream infection).

### **Who gets plague?**

Plague is rare in the United States, with an average of 7 human plague cases reported each year (range: 1- 17 cases per year). Cases in the United States generally occur in rural and semi-rural areas in the west and southwest, particularly Arizona, California, Colorado, and New Mexico. Worldwide, about 1,000- 2,000 cases of plague are reported each year.

### **How is plague spread?**

Plague bacteria are usually spread to people by the bite of an infected flea. The bacteria can also spread to people when they handle infected tissue or body fluids from an infected animal or when they inhale cough droplets from a person or animal with pneumonic plague.

### **What are the symptoms of plague?**

Symptoms of plague can include fever, chills, nausea, headache and body aches. Specific types of plague can also lead to other symptoms. Patients with bubonic plague develop swollen, painful lymph nodes (called “buboes”) usually in the groin, armpit, or neck. Patients with septicemic plague develop abdominal pain, shock, and organ failure. Patients with pneumonic plague develop cough with bloody or watery sputum.

### **How soon after exposure do symptoms appear?**

Symptoms of plague usually appear 1-6 days after exposure, depending on the form of plague.

### **How is plague diagnosed?**

Laboratory tests of samples from a patient are needed to confirm the diagnosis of plague.

### **What is the treatment for plague?**

Plague can be treated effectively with antibiotics, but an infected person must be treated quickly to avoid serious complications and death. About 11% of all plague cases in the United States are fatal. Plague can lead to death even if treated with effective antibiotics, though the death rate is lower for bubonic plague than for septicemic or pneumonic plague.

### **How can plague be prevented?**

Travelers to and residents of areas where plague is more common should avoid contact with rodents and fleas, avoid handling sick or dead stray animals, and stay away from rodent-infested places. Insecticides or insect repellents effective against fleas should be used. Eliminating nesting places for

rodents around the home, garages, or recreational areas can also reduce the risk of infection. Sometimes antibiotics will be prescribed to prevent plague in close contacts of someone who has the disease. Currently, a plague vaccine is not available.

### **Could plague be used for bioterrorism?**

*Yersinia pestis* is considered a possible bioterrorism agent because the bacterium occurs in nature and it could be isolated and grown in a laboratory. If *Yersinia pestis* were used in an aerosol attack, people would develop the pneumonic form of plague that can cause severe disease and spread from one person to another.

### **How can I get more information about plague?**

- If you have concerns about plague, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at <https://www.vdh.virginia.gov/local-health-districts/>.
- Visit the Centers for Disease Control and Prevention website at <https://www.cdc.gov/plague/>.

### **[Plague: Overview for Health Care Providers](#)**

Two page summary of: Organism, Reporting, Infectious Dose, Occurrence, Natural Reservoir, Route of Infection, Communicability, Case-fatality Rate, Risk Factors, Incubation Period, Clinical Manifestations, Differential Diagnosis, Laboratory Tests/Sample Collection, Treatment, Vaccine

### **[Plague: Guidance for Health Care Providers](#)**

Key Medical and Public Health Interventions After Identification of a Suspected Case

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