

# Plague

---

## Cause of Illness

Plague is a disease that primarily affects animals, such as rodents and rabbits, but can occur in humans. It is caused by bacteria called *Yersinia pestis*.

There are three different types of plague in humans: bubonic (infection in a lymph node), septicemic (infection in the blood stream), or pneumonic (infection in the lungs). Bubonic plague is most common and occurs after a bite from an infected flea. Rare cases of infection can also occur through direct contact with tissues and fluids of infected rodents or other animals. Septicemic plague occurs usually as a complication of bubonic plague, but it may also result from direct contact with infectious materials or the bite of an infected flea. If left untreated, bubonic and septicemic plague can lead to pneumonic plague, where the bacteria have infected the lungs. In some rare instances pneumonic plague can be contracted by inhalation of respiratory droplets from infected humans or animals.

Plague is found in many countries across the world. In the United States, plague has most often been reported throughout the west with the majority of cases occurring in New Mexico, Arizona, California, and Colorado. Plague cases usually occur more frequently during summers that follow mild winters and wet springs. These weather conditions help increase vegetation and rodent populations, both of which are very important for plague activity.

## Symptoms

- Fever
- Chills
- Headache
- Rapidly progressive weakness
- Painful swollen regional lymph nodes (buboes)

### Additional Symptoms, Septicemic

- Low blood pressure
- Acute respiratory distress
- Problems with blood clotting

### Additional Symptoms, Pneumonic

- Fever
- Cough
- Shortness of breath
- Coughing up blood

Plague is a very serious illness and can progress rapidly. If you have reason to believe that you may have plague, you should immediately consult with your health care provider. Plague can be treated, but treatment is most effective when provided early in the illness.

## Transmission

Transmission of plague to humans occurs when infected fleas from ground squirrels, prairie dogs, and other wild rodents bite a human. In addition, cats and dogs can also get plague or carry the infected fleas home to their owners. People can also become infected with plague directly from their cats.

## Incubation Period

2 to 6 days for bubonic plague  
2 to 4 days for primary pneumonic plague.

## Prevention and Control

The best method of prevention is to reduce the likelihood of being bitten by infected fleas. When possible, avoid areas that wild rodents inhabit. If you enter these areas, use an appropriate insect repellent, wear long pants, and tuck your pant cuffs into your socks to prevent flea bites.

Protect pets with flea powder or other flea repellent approved for animals. Contain pets inside and when hiking or walking, keep them on a leash and out of wild rodent habitats. Dogs are usually resistant to plague, but cats oftentimes will develop illness. If your pets become sick with a fever, lethargy, and refuse to eat, a veterinarian should see them immediately. Because plague activity is often associated with increased rodent populations, you should prevent rodent infestations around your house: clear plants and materials away from outside walls where rodents can harbor and reduce access to food items. It may also be effective to treat known rodent sites around your home with a flea powder or other flea repellent approved for animals.

## Treatment

Treatment for any communicable disease should always be done in consultation with your health care provider.

Treatment with antibiotics is effective during the early stages of disease. If diagnosis and appropriate treatment are delayed, life-threatening complications may follow. A doctor or hospital emergency room should be consulted as soon as symptoms appear and a history of exposure to potentially infected animals is very important in evaluating the risk from plague.

## Resources

[www.cdc.gov](http://www.cdc.gov)

Click on "Diseases and Conditions" and select the disease of interest.