

# Plague

## What is plague and what causes it?

Plague is a severe disease caused by the bacteria, *Yersinia pestis* (Yur-sin-EE-ah pes-tis). Many animal species, including humans, can get the disease. Various forms of disease can occur such as swollen glands (lymph nodes), severe respiratory (lung) problems and possibly death. During the Dark Ages, the plague caused the death of over 1/3 of the European population. Today, occasional cases occur in the southwestern United States. The bacteria is also listed as a potential agent of bioterrorism.

## What animals get plague?

Many animals (over 200 species) can get plague. The virus is maintained in nature by wild rodents, such as prairie dogs, chipmunks, wood rats, ground squirrels, deer mice and voles. Cats can easily get plague. Other species include rabbits, wild carnivores (e.g., coyotes, bobcats), goats, camels, and sheep.

## How can my animal get plague?

Animals usually get plague from the bite of an infected flea. Carnivores and domestic cats can also get plague by eating rodents that are infected with the bacteria.

## How does plague affect my animal?

In rodents, plague usually causes mild illness but can be fatal during an outbreak in the population. Wild carnivores with the disease do not usually appear sick. Cats and other animals may have fever, swollen lymph nodes, and abscesses in internal organs, or they may die suddenly.

## Can I get plague?

Yes. People can become infected three different ways: flea bite (**vector**) (most common), **direct contact** with an infected animal (hunters touching infected internal organs), or by inhaling (**aerosol**) the bacteria.

Bubonic (boo-bon-ic) plague is the most common form of illness seen and occurs after being bitten by an infected flea. Signs include fever, chills, and very swollen, painful lymph nodes, called "buboes" (boo-bows). Septicemic (sep-ti-seem-ik) plague occurs when the bacteria enter the bloodstream and spread throughout the body. This phase can follow after bubonic plague.

Pneumonic (new-mon-ik) plague is less common but the most deadly form. It occurs when the bacteria infect the lungs, after being inhaled or being carried by the blood (septicemic form). This form can be spread to other people by coughing. Signs of illness include fever, chills, headache, and coughing-up blood. Treatment must be received immediately (within 24 hours) for survival.



## Who should I contact, if I suspect plague?

**In Animals** – Contact your veterinarian immediately. Any animals suspected of having plague should be isolated.

**In Humans** – Contact your physician immediately.

## How can I protect my animal from plague?

Cats and dogs should not be allowed to roam free or hunt wild animals, especially rodents and rabbits. Flea control for dogs and cats is important. If fleas are brought into the house or yard, use commercial products to kill them. Use rodent control measures, such as removing food sources and nesting places, to eliminate rodents around homes, work places and recreation areas.

## How can I protect myself from plague?

Protect yourself against flea bites. Have cats and dogs treated with a flea control product on a regular basis. Tuck pants into socks when working or playing outside. Wear gloves when touching any animal with an oozing wound. Avoid touching wildlife. Avoid areas where large groups of rodents suddenly die.

## For More Information

CFSPH Technical Fact Sheets. Plague at <http://www.cfsph.iastate.edu/DiseaseInfo/default.htm>

CDC website at <http://www.cdc.gov/ncidod/dvbid/plague/index.htm>

WHO website at <http://www.who.int/mediacentre/factsheets/fs267/en/>