

## ROLE OF PUBLIC HEALTH OFFICIALS

State and local health agencies monitor plague activity throughout the State. Rangers, park personnel and others are trained to watch for sick or dead rodents or other evidence that plague may be active in a particular area and to report their findings to health authorities.

Health authorities institute preventive measures when animal plague is found in areas with human exposure. Warning signs are posted. After careful evaluation, the area may be quarantined and insecticides may be used to reduce the risk of flea bites to humans.

Insecticide dust is applied into rodent burrows and/or into tube-like containers called "bait stations." Rodents enter the bait stations and get flea powder in their fur. They also carry the insecticide in their fur back to the nest, killing fleas inside the burrows. This method of flea control is very effective, uses a minimum of insecticide, and does not harm the rodents.

**IF YOU SEE A BAIT STATION, PLEASE DO NOT DISTURB IT.**

Additional information on plague and other vector-borne diseases can be obtained from your local health department.

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## FACTS ABOUT PLAGUE IN CALIFORNIA



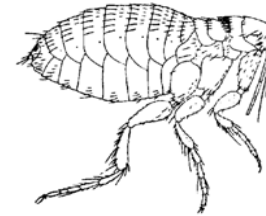
Plague is a highly infectious bacterial disease which affects primarily rodents. Humans and their pets (especially cats) can get plague if they visit or live in areas where wild rodents are naturally infected.

Historically, plague caused thousands of deaths throughout Europe in the 6th Century (the Plague of Justinian) and again in the 14th Century (the Black Death). Today, plague in humans is rare and can be treated successfully with modern antibiotics. However, it is vital that the disease be diagnosed and treated in its early stages. If not, the infection can spread to the blood and lungs (plague pneumonia) and be fatal.

## EXPOSURE TO PLAGUE

People can get the disease from animals in several ways. The most important routes of transmission are:

### 1. BITES OF FLEAS FROM INFECTED RODENTS



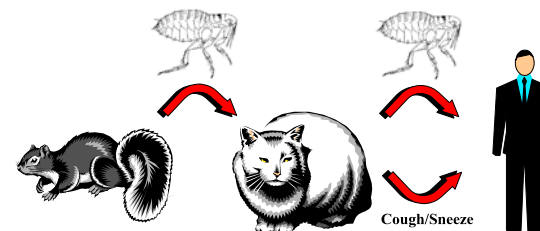
Hungry fleas will leave a sick or dead rodent to find another host and can bite people.

### 2. DIRECT CONTACT WITH SICK ANIMALS.



The bacteria in the blood or other body fluids of an infected animal can enter through cuts and abrasions on the hands or the mucous membranes.

### 3. PET INVOLVEMENT. (1) Plague pneumonia can be caught from a sick cat that is coughing or sneezing. (2) Infected rodent fleas can be brought into the home or campsite by a dog or cat.



## RISK OF PLAGUE

Plague in California occurs in the foothills, plateaus, mountains and coast (shaded areas on map). Plague is absent from the southeastern desert region and the Central Valley.



When plague was first introduced to North America, it was principally associated with domestic rats in urban areas. The last known human cases of rat-associated plague occurred in Los Angeles in the 1920s.

Today, wild rodents in rural areas are the principal source of plague in California. The major threat of plague to humans is in the rural recreational and wilderness parts of the state, as well as the suburban foothills of some larger cities.

You can minimize your exposure to plague in these areas by educating yourself about plague and carefully following the precautions listed in this pamphlet.

## WHICH ANIMALS CARRY PLAGUE?



Chipmunk



Golden-Mantled Ground Squirrel

The most important wild rodents that can carry plague are squirrels (especially ground squirrels), chipmunks, woodrats, mice, and marmots. Plague is lethal to many rodents; therefore, any sign of sick or dead rodents is a warning that plague may be in the area. Other wild animals -- especially rabbits, carnivores (coyote, bobcat, badger, bear, gray fox, and skunk), and wild pigs -- can also acquire plague but usually with no signs of illness.

Domestic animals can acquire plague and pose a direct threat to humans. Dogs rarely become ill, but cats are highly susceptible and can suffer a severe illness. Pets can transport rodent fleas from the field into homes or campsites. If a cat develops plague pneumonia, it can infect humans by coughing and sneezing.

# Ways to Protect Your Family From Plague

### General Precautions

- < If you become ill within seven days after being in a plague area, contact a physician immediately.
- < Use caution when handling a sick pet that has been in a plague area, especially a cat. Avoid close face-to-face contact. Consult a veterinarian and inform them that the animal has been in a plague area.
- < Avoid all contact with rodents and their fleas. Do not touch sick or dead rodents. Report them to rangers or health authorities.

### Where You Live

- < Keep rodent populations down around homes and other inhabited areas. Prevent them from entering buildings. As much as possible, remove, or deny rodents access to, any source of food or shelter.
- < Minimize pet contact with rodents and their fleas. A bell on a cat's collar may help. Protect pets with flea powder. Flea collars are helpful, but, if used alone, are too slow acting.

### Where You Work or Play

- < Do not camp, sleep, or rest near animal burrows.
- < Do not feed rodents in campgrounds and picnic areas. Store food and refuse in rodent-proof containers.
- < Wear long pants tucked into boot tops to reduce your exposure to fleas. Apply insect repellent to socks and trouser cuffs.
- < LEAVE PETS AT HOME if possible. If not, keep pet confined or on a leash. Do not allow pets to approach sick or dead rodents or to explore rodents burrows. Protect pets with flea powder.
- < HUNTERS AND TRAPPERS: Use rubber gloves when skinning and cleaning rodents, rabbits, wild pigs, coyotes and other carnivores. Cook these animals thoroughly.

## SYMPTOMS OF PLAGUE

In humans, the initial symptoms of plague include fever, chills, muscle aches, weakness, and, commonly, swollen and tender lymph nodes (called "buboes"). This stage is called bubonic plague.

**Contact a physician immediately if you become ill within 7 days of being in a plague area.**

Plague is curable when diagnosed early. You can help with the diagnosis by telling your doctor where you have been and what you have done that may have exposed you to plague.

If it is not treated in time, bubonic plague can progress to septicemic plague (bloodstream infection) and/or pneumonic plague (lung infection).

A cat with plague will become very ill, may stop eating, and will have a fever. Swollen lymph nodes may occur, generally in the neck area.

**Inform your veterinarian if a sick pet has been in a plague area.**

