



# Plague

## Background

Plague was introduced into the United States from Asia through shipping ports in the early 1900s. It can now be found in small wild animal populations throughout the western states. Plague is a zoonotic disease caused by the bacterium *Yersinia pestis*. Plague exists naturally through a complex flea-rodent cycle where fleas become infected by feeding on animals such as chipmunks, prairie dogs, rabbits, ground squirrels, tree squirrels, mice, and woodrats that are infected with the bacteria. Infected fleas then transmit the plague bacteria to other mammals and humans during the blood feeding process. Carnivores typically get plague by ingesting infected animals or from flea bites. Other routes of exposure may include contact with contaminated soil or inhalation of aerosolized bacteria in respiratory droplets from infected animals.

Plague can be a very severe disease in humans, with a fatality rate of 50 percent if left untreated. Humans can contract the disease through a flea bite, direct contact with plague-infected rodents, or direct contact with affected non-rodent hosts such as rabbits and cats. Symptoms in humans typically appear within 2-6 days after exposure. Symptoms include sudden onset of fever, chills, headache, nausea, vomiting, stomach and/or back pain, and weakness.

## Management

Plague is naturally occurring in Arizona, mostly in animal die-offs. Flea control techniques for wildlife species are limited and in the early stages of development, but include placing powdered insecticides in animal burrows, and offering medicinally-laced food. Large scale die-offs can result in the sudden loss of entire colonies of prairie dogs or other mammals, and should be reported immediately.

Care should be taken to avoid contact with mammals such as rabbits, rodents, and prairie dogs. Protect pets by keeping them indoors or administering flea control for outdoor pets or animals. Rodent-proof your home, vehicles, and other buildings. To manage the risk of becoming infected, apply insect repellent to clothing and skin, and wear a mask and gloves if handling rabbits, rodents, or other dead animals that may have fleas. Plague may be identified microscopically by examination of bodily fluids.

## Reporting

To report dead wildlife, please call the Wildlife Disease Hotline at 877-972-8426. Wildlife health personnel will respond Monday through Friday during normal business hours. You can leave a message if it is before or after business hours. Fresh samples are required for testing. A recently dead small animal can be collected by using a shovel or other object to bag the animal while wearing gloves, long sleeves, pants, and then placed into a freezer. If you have a wildlife related emergency, please call our 24 hour dispatch center at (623) 236-7201. If the animal you are calling about has been shot and you are reporting possible illegal activity, call Operation Game Thief 800-352-0700.

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**azgfd.gov | 602.942.3000**

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