

What is plague?

Plague is a disease that affects humans and other mammals. It is caused by the bacterium, *Yersinia pestis*.

There are three types of plague: bubonic, septicemic and pneumonic.

How is plague spread?

Bubonic plague and septicemic plague are spread through bites from infected fleas and handling infected animals. Pneumonic is spread through contact with humans or animals that have plague pneumonia and cough.

What are the signs and symptoms of plague?

Symptoms of bubonic plague include sudden high fever, chills, headaches, weakness and one or more swollen lymph nodes (called buboes) in the groin, armpit or neck. These become painful, pus-filled, and may rupture and ooze fluid.

Septicemic plague occurs when bacteria enter the blood stream. Symptoms may include fever, chills, extreme weakness, stomach pain, shock and sometimes bleeding into the skin and other organs. The skin may turn black and die.

Symptoms of pneumonic plague include cough, high fever, and chills. A person with pneumonic plague may cough up bloody or watery mucous.

How long after infection do symptoms appear?

Bubonic plague: Swollen lymph nodes typically develop in the first week after you become infected, usually 2 to 6 days.

Septicemic plague: If bubonic plague is left untreated, it can spread to the bloodstream rapidly.

Pneumonic plague: Pneumonic plague progresses rapidly and may cause respiratory failure and shock within two days of infection.

Who is most at risk?

People who are sick and live in, or have recently traveled to, the western United States or any other plague-infested are at greater risk. Plague epidemics have occurred in Africa, Asia, and South America, but most human cases since the 1990s have occurred in Africa. Almost all of the cases reported in the last 20 years have occurred among people living in small towns and villages or agricultural areas rather than in larger towns and cities.

What type of health problems are caused by plague?

Any form of plague can be deadly, if not treated. Septicemic and pneumonic plague are more often fatal than bubonic plague because they are harder to recognize. Fortunately, these types of plague are less common. Other complications may include gangrene (blood clots) and meningitis (inflammation of the membranes surrounding your brain and spinal cord).

How is plague diagnosed?

In many cases, particularly in septicemic and pneumonic plague, there are no obvious signs. Diagnosis is made by taking samples from the patient, especially blood or part of a swollen lymph gland, and submitting them for laboratory testing.

How is plague treated?

Plague is treated by strong antibiotics and treatment should begin immediately.

How can plague be prevented?

No effective vaccine is available. Antibiotics can help prevent infection if you are at risk of or have been exposed to plague. Take the following precautions if you live or spend time in areas where plague outbreaks occur:

- **Rodent-proof your home.** Remove potential nesting areas, such as piles of brush, rock, firewood and junk. Don't leave pet food in areas that

rodents can easily access. If you become aware of a rodent infestation, take steps to control it.

- **Keep your pets free of fleas.** Ask your veterinarian which flea-control products will work best.
- **Wear gloves.** When handling potentially infected animals, wear gloves to prevent contact between your skin and harmful bacteria.
- **Use insect repellent.** Closely supervise your children and pets when spending time outside in areas with large rodent populations. Use insect repellent.
- **Report large numbers of dead or sick rodents to your local or state health department.**

Where can I get more information?

- Your personal healthcare provider
- [Centers for Disease Control & Prevention](#)
- [Utah Department of Health](#)

Rev. 12/2019

