



## PLAGUE

### What is plague?

Plague is an infectious disease that affects animals and humans. It is caused by the bacterium *Yersinia pestis* (*Y. pestis*). This bacterium is found around the world in rodents and their fleas. Plague can take three forms. Depending on the circumstances, these forms may occur separately or in combination:

- **bubonic** (the most common)
- **pneumonic**
- **septicemic**

A bioweapon carrying *Y. pestis* is possible because the bacterium occurs in nature and could be isolated and grown in quantity in a laboratory. However, manufacturing an effective plague weapon would require advanced knowledge and technology.

### What are the symptoms?

Within 2 - 6 days, people with **bubonic** plague develop swollen, tender lymph glands, fever, headache, chills and weakness. The first signs of **pneumonic** plague are fever, headache, weakness, and rapidly developing pneumonia with shortness of breath, chest pain, cough and sometimes bloody or watery sputum. People with **septicemic** plague have fever, chills, abdominal pain, shock and bleeding into the skin and other organs.

### How is it spread?

**Bubonic** plague occurs when an infected flea bites a person or when materials contaminated with *Y. pestis* enter through a break in a person's skin. It does not spread from person to person.

**Pneumonic** plague occurs when *Y. pestis* infects the lungs. It can spread from person to person through the air. Transmission can take place if someone breathes in aerosolized bacteria, which could happen in a bioterrorist attack. It is also spread by breathing in *Y. pestis* suspended in respiratory droplets from a person (or animal) with pneumonic plague. Becoming infected in this way usually requires direct and close contact with the ill person or animal. Pneumonic plague may also occur if a person with bubonic or septicemic plague is untreated and the bacteria spreads to the lungs.

**Septicemic** plague occurs when plague bacteria multiply in the blood. It can be a complication of pneumonic or bubonic plague or it can occur by itself. When it occurs alone, it is caused in the same ways as bubonic plague. Septicemic plague does not spread from person to person.

### How is it treated?

**Early treatment of pneumonic plague is essential.** To reduce the chance of death, antibiotics must be given within 24 hours of the first symptoms. Antibiotic treatment for seven days will protect people who have had direct, close contact with infected patients. A plague vaccine is not currently available for use in the United States. Plague is curable, but without early treatment, patients may die.

### What is Tarrant County doing about it?

Tarrant County Public Health works with local, state and federal organizations to reduce the risk of illness due to plague and conducts educational initiatives for health care professionals and the community.

**What can I do to protect myself and my family?**

People usually get plague from being bitten by a rodent flea that is carrying the plague bacterium or by handling an infected animal. Avoid rodent nests, burrows and areas where you are likely to come into contact with sick or dead animals. Take personal protective measures, such as the use of insect repellents containing DEET on skin and clothing. Clothing also can be treated with insecticidal sprays.

**Where can I get more information?**

You can visit us online (<http://health.tarrantcounty.com>); call our Epidemiology and Health Information office at 817-321-5350; contact the Centers for Disease Control and Prevention at 1-888-246-2675 ([www.bt.cdc.gov](http://www.bt.cdc.gov)).