

Kent County Health Department Plague Fact Sheet



What is plague?

Plague is a severe disease caused by the bacteria *Yersinia pestis*. It is usually carried by rodents, mainly rats, and in the fleas that feed on them. Only one bacterium causes plague, but it can cause three different forms of plague – bubonic, septicemic, and pneumonic. Bubonic plague is the most common form.

How do people get infected with plague?

- People contract bubonic plague after being bitten by an infected flea or rodent.
- Septicemic plague is contracted the same way as bubonic plague – usually through a flea or rodent bite. The bacteria then multiply in the blood. Septicemic plague can also appear when bubonic or pneumonic plague spreads to the blood.
- Pneumonic plague occurs two ways. It occurs when the bacteria is inhaled, or spreads to the lungs from one of the other types.

What are the symptoms of plague?

Bubonic plague affects the lymph nodes.

Symptoms include:

- Fever
- Headache
- Chills
- Weakness
- Swollen, tender lymph glands (buboes)

Symptoms of septicemic plague are:

- Fever
- Chills

- Weakness
- Stomach pain
- Shock
- Bleeding underneath the skin or other organs
- Buboes do not develop

Symptoms of pneumonic plague are:

- Fever
- Headache
- Weakness
- Rapidly developing pneumonia with shortness of breath, chest pain, cough
- Sometimes bloody or watery sputum

Nausea, vomiting, and stomach pain may also occur. Without early treatment, pneumonic plague usually leads to respiratory failure, shock, and rapid death.

How soon do infected people get sick?

In bubonic plague, symptoms generally occur within two to six days of exposure to the bacteria. Within one to three days of exposure to airborne droplets of pneumonic plague, people begin developing symptoms.

Can plague be spread from person to person?

Bubonic and septicemic plagues are rarely spread from person to person. Pneumonic plague is contagious. When someone with it coughs, they release the bacteria in their respiratory droplets into the air. If an uninfected person breathes in the droplets, they can develop pneumonic plague.

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How is plague treated?

When the plague is suspected and diagnosed early, people can be treated with readily available antibiotics. To prevent a high risk of death from pneumonic plague, antibiotics should be given within 24 hours of the first symptoms.

Can a person exposed to pneumonic plague avoid becoming sick?

People who have had close contact with an infected person can reduce their chance of getting sick if they begin treatment within seven days of their exposure.

How can someone reduce the risk of getting pneumonic plague from another person or giving it to someone else?

People having direct and close contact with someone with pneumonic plague should wear tightly fitting and disposable surgical masks. Patients with the disease should be isolated and medically supervised for at least the first 48 hours of antibiotic treatment. People who have been exposed to a contagious person can be protected from getting plague by receiving prompt antibiotic treatment.

Is there a plague vaccine?

Currently, no plague vaccine is available.

Can plague be used as a weapon?

It is possible pneumonic plague could result from it being released through the air.

Once people have the disease, the bacteria can spread to others who have close contact with them. Because of the delay between being exposed to the bacteria and getting sick, people could travel over a large area

before becoming contagious and possibly infecting others. The *Yersinia pestis* bacterium occurs in nature. It could be isolated and grown in quantity in a laboratory. Even so, making an effective weapon using *Yersinia pestis* would require advanced knowledge and technology.