



# Plague

## Definition:

Plague is a disease caused by *Yersinia pestis* bacteria. In the United States, most human cases of plague occur sporadically in the Western USA. Plague also exists in Africa, Asia, and South America. The animal hosts are rodents and rat fleas.

## Signs and symptoms:

Plague symptoms depend on how the patient was exposed to the plague bacteria. Common symptoms are fever, headache, chills, and weakness.

- **Bubonic plague:** Swollen, tender, and painful lymph nodes (called buboes) occur.
- **Septicemic plague:** Abdominal pain, shock, and possibly bleeding into the skin and other organs may occur. Skin and other tissues may turn black and die, especially on fingers, toes, and the nose.
- **Pneumonic plague:** Rapidly developing pneumonia with shortness of breath, chest pain, cough, and sometimes bloody or watery mucous occurs. The pneumonia may cause respiratory failure and shock. Pneumonic plague is the most serious form of the disease.

## Transmission:

People can get this disease from bites of infected fleas or from handling an infected animal. Pneumonic plague can be spread by inhaling in droplets that have the bacteria in them from an infected person or animal. These bacteria could also be used as a biologic weapon and released into the air intentionally.

## Diagnosis:

Laboratory tests to find the bacteria in body fluids or other specimens are required to confirm the diagnosis.

## Role of the School Nurse:

### Prevention

Educate students and staff to:

- Take measures to avoid rodents and fleas when traveling.
- Use insect repellent and do not handle rodents.
- Do not camp near rodent burrows.
- Have your cat or dog treated with an insecticide.
- Wear gloves when hunting or handling animals.

### Treatment Recommendations

- Cases should be referred to their medical provider for appropriate antibiotic treatment.
- Contacts would be referred to their medical providers for evaluation for prophylaxis.

### Exclusions

- Cases would likely be hospitalized for treatment and placed on specific isolation precautions.

### Reporting Requirements

- Plague is immediately reportable to 1-800-821-5821.

**Resources:**

- Maine CDC Plague website [www.maine.gov/dhhs/plague](http://www.maine.gov/dhhs/plague)
- Federal CDC Plague website <https://www.cdc.gov/plague/>