

## Q Fever

Q Fever is an immediately reportable disease – report to 1-800-821-5821

Background	Role of the School Nurse
Signs and Symptoms	Exclusions
Transmission	Reporting
Diagnosis/Treatment	Resources/References

### Definition

Q fever is a disease caused by infection with *Coxiella burnetii*,<sup>[1]</sup> a [bacterium](#) that affects humans and other animals. This organism is uncommon, but may be found in [cattle](#), [sheep](#), [goats](#) and other [domestic mammals](#), including [cats](#) and [dogs](#). The infection results from [inhalation](#) of a spore-like small cell variant, and from contact with the milk, urine, feces, vaginal mucus, or semen of infected animals. Rarely, the disease is tick borne.<sup>[2]</sup> The [incubation period](#) is 9–40 days.<sup>1</sup>

Q Fever outbreaks have resulted mainly from occupational exposure involving veterinarians, meat processing plant workers, sheep and dairy workers, livestock farmers, and researchers at facilities housing sheep.

Humans are vulnerable to Q-fever, and infection can result from even a few organisms.<sup>[3]</sup>

CDC data reported in 2010 shows no incidence of cases reported in New England. This is not indicative of an absence/presence of Q fever.

### Signs and Symptoms

People with Q Fever usually get high fevers (up to 105°F), bad headaches, feel tired, and have muscle aches. Some people also get confused, a sore throat, chills, sweats, cough, nausea, vomiting, diarrhea, stomach pain, and chest pain. The fever usually lasts for 1 to 2 weeks. Weight loss can occur and last for some time. Some (30-50%) people with symptoms can get pneumonia (a lung infection). Some people also develop hepatitis (inflammation of the liver). Chronic Q fever is more serious and can harm valves of the heart. It is more common in people with heart disease, cancer, chronic kidney disease, or organ transplants. Children with Q Fever are less likely to have symptoms than adults and might have a milder illness.

### Transmission

Q Fever usually occurs when a person breathes in dust containing the dried wastes of infected animals. Direct contact with infected animals – most commonly cows, sheep, and goats - and their blood, feces, urine, soiled materials such as straw or other bedding materials. Unpasteurized milk from infected cows or goats may also cause infection. Direct person-to-person spread is not very common but can happen. The risk of infection is greatest close to the source of bacteria, but there have been cases in people miles away from the source. This is because infected dust can travel in the air for several miles.

### Diagnosis

Q Fever is diagnosed through lab tests on blood or tissues.

### Treatment Recommendations

- Antibiotics are used to treat Q Fever.
- Long lasting (chronic) Q Fever infection of the heart is very difficult to treat. Sometimes surgery is needed to remove damaged heart valves.

### Role of the School Nurse

#### Prevention

- Educate students and staff on these Q Fever prevention messages when appropriate:
  - Use only pasteurized milk and milk products.
  - Do not enter barns housing potentially infected cows, sheep, and goats.

**Exclusions**

- None

**Reporting Requirements**

- Q Fever is an immediately reportable disease – report to 1-800-821-5821

**Resources**

- Maine CDC Q Fever website (including fact sheet)  
<http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/zoonotic/q-fever.shtml>
- Federal CDC Q Fever website <http://www.cdc.gov/qfever/>

**References**

1. [http://en.wikipedia.org/wiki/Q\\_fever#History](http://en.wikipedia.org/wiki/Q_fever#History)