



## Q-FEVER

<b>Agent information:</b>	Q-Fever, a bacterial zoonosis, is caused by the rickettsia-like bacterium <i>Coxiella burnetii</i> . The bacteria are naturally occurring. Cattle, sheep, and goats are the primary reservoirs, although infection has been noted in a wide variety of other vertebrates. The organisms are resistant to heat, drying, and many common disinfectants. Because of the stability of the organism and its ability to be transmitted via inhalation, the aerosol form has the potential for use in bioterrorism.
<b>Transmission:</b>	Person-to-person transmission is rare. Infection occurs most often by inhalation of dust or aerosols derived from infected domestic animals (dried placental material, birth fluids, and excreta). Infection may also be transmitted from animals to humans by ticks. Humans are very susceptible to disease and very few organisms are required to cause infection. The incubation period is dose dependent; it is generally two to three weeks.
<b>Signs and symptoms:</b>	Only half of all infected people show signs of clinical illness. Acute Q fever is characterized by sudden onset of one or more of the following: high fevers (up to 104 degrees F to 105 degrees F), severe headache, malaise, myalgia, confusion, sore throat, chills, sweats, non-productive cough, nausea/vomiting, diarrhea, abdominal pain, and chest pain. Fever usually lasts one to two weeks. Following inhalation of bacteria, patients would likely present with atypical pneumonia. Q-Fever can also cause chronic symptomology with endocarditis appearing as the primary manifestation.
<b>Protective measures:</b>	Follow appropriate Body Substance Isolation (BSI) precautions, with use of Personal Protective Equipment (PPE). <b>Standard Precautions:</b> Hand washing before and after all patient contacts and contact with patient care equipment. <b>Contact Precautions:</b> Use of gloves, gown, and eye protection. <b>Airborne Precautions:</b> Initiate droplet precautions for persons with flu-like illness or confirmed infection, including wearing masks (fit tested, NIOSH-approved N-95 respirator) when in contact with the patient. If equipment is visibly soiled or significant contact has been made with the patient, remove the protective clothing <b>BEFORE</b> entering new areas to prevent transmission. Victims presenting immediately after aerosolized exposure require decontamination.

**Emergency Medical Services and Preparedness Section**  
**24/7 Emergency Contact Number: 1-888-295-5156**  
**Contact Number: 302-223-2999**

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- Decontamination of PPE and equipment:** Equipment can be decontaminated using soap and water. Also, 0.5% hypochlorite solution (one part household bleach to 10 parts water) can be used as appropriate or if gear was visibly contaminated. Note that bleach may damage some types of firefighter turnout gear (one reason why it should not be used for biological agent response actions). After removing gear, response workers should shower, using copious quantities of soap and water.
- Prophylaxis:** Vaccine is not licensed for use in the United States.
- Treatment:** The treatment of choice for acute Q-Fever is Doxycycline administered for 14 days. For children and pregnant women with acute Q fever, cotrimoxazole should be used. For patients with chronic Q fever, treatment of choice is a combination of doxycycline and hydroxychloroquine.
- Reporting:** Immediately report any suspect cases to the Division of Public Health, Office of Infectious Disease Epidemiology: 1-888-295-5156.
- Additional information:** Visit the Centers for Disease Control and Prevention website: [www.cdc.gov/qfever/](http://www.cdc.gov/qfever/).