

Q Fever

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Q fever is a bacterial zoonosis (disease capable of being transmitted from animals to people) caused by *Coxiella burnetii*, a rickettsial organism. Q fever in humans is usually either asymptomatic or mistaken for an acute viral illness due to the symptoms of fever, chills, headache, weakness, malaise (a general sick feeling), and severe sweats. In most cases, the illness is of short duration, lasting less than two weeks, even without treatment. Rare complications include pneumonitis (inflammation of the lungs), neurologic problems and, among people with abnormal or prosthetic heart valves, endocarditis (inflammation of the heart). Complications are more likely to occur among people who have weakened immune systems.

While Q fever is rarely reported, anyone can get the disease if they are infected with *C. burnetii* bacteria. People at highest risk for Q fever are those who work with infected animals, including veterinarians, researchers, meat workers, sheep workers and farmers. The incubation period is variable, although 2-3 weeks is considered common. Blood tests can be used to diagnose Q fever.

C. burnetii may be found in sheep, cattle, goats, cats, dogs, some wild animals (including many wild rodents), birds and ticks. Animals shed the organism in their urine, feces, milk and especially in their birth products. Most infected animals do not show signs of illness. Q fever is spread to people primarily through airborne dissemination of contaminated dust. Dust becomes contaminated from the tissues or bodily fluids of animals infected with *C. burnetii* bacteria. Direct contact with infected animals or materials that they have contaminated (such as straw or other bedding materials) may also cause an infection. Raw or unpasteurized milk from infected cows or goats may be capable of spreading *C. burnetii*. Direct person-to-person spread is not likely.

Prevention is based on the control of this disease in domestic animals. People who work with animals who may be infected need to know the signs and symptoms of Q fever and seek treatment if they feel they could be infected. There is a Q fever vaccine that is currently not available for general use, but may be available through the Department of Defense for persons who are known to be at high risk of exposure. Q fever is listed as a potential bioterrorism agent because it can be spread to people through an airborne route.

A documented cluster of Q fever in Florida occurred during 1999 in Alachua County among researchers exposed to an infected sheep. Q fever was made a reportable disease during 1999.

References

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