



Q Fever

(*Coxiella burnetii*)

What is Q fever?

Q fever is a disease caused by the bacteria *Coxiella burnetii*, which is commonly found in environments associated with animals. Many wild and domestic animals can carry this microorganism, often without showing signs of illness. The bacteria can survive for months in a contaminated environment and can be transported in contaminated products or through the air.

Who is at risk for Q fever?

People of all ages can get Q fever, but people who have extensive exposure to infected animals, such as sheep, goats and cows, are at higher risk of contracting the illness. Other animals, such as dogs, cats, rodents and other mammals, have also been shown to transmit the disease to humans.

Women who are pregnant should try to minimize their exposure to goats, sheep and cows because Q fever during pregnancy has been associated with miscarriage, premature birth and low birth weight.

What are the symptoms of Q fever?

Symptoms may include fever, chills, sweating, severe headache, muscle pain, general discomfort, loss of appetite, and sometimes nausea or vomiting. Some infected people develop respiratory symptoms that may include a dry cough or chest pains. Long-term problems, such as cardiac infections, can occur.

Q fever typically lasts from five to 14 days, but symptoms can persist as long as eight weeks. Older people may develop more severe and longer-lasting infections than younger people.

How soon do symptoms appear?

Symptoms appear 14 to 22 days after exposure, but can be as early as nine or as long as 39 days post-exposure. Chronic Q fever can develop months or years after initial infection.

How is Q fever spread?

Infection can occur by direct exposure to infected animals or tissues; contaminated materials such as wool, straw, fertilizer or clothing; or unpasteurized milk from infected animals. Infection can also occur by airborne particles in the dust from places that are contaminated by the birthing materials of an infected animal.

When and for how long is a person able to spread the disease?

Q fever is not spread directly from person to person. Rare cases have been documented showing spread from mother to fetus and by contaminated blood or marrow transfusion.

How is a person diagnosed?

Several laboratory blood tests that detect Q fever may be used to confirm the diagnosis. If you have symptoms of Q fever following animal exposure, contact your health-care provider.

What is the treatment?

Most people generally recover from Q fever without any treatment. However, Q fever can be treated with antibiotics. In the case of chronic infection of the heart, antibiotic therapy must be continued for long periods of time.

Does past infection make a person immune?

Immunity following recovery from the illness may be life-long.

Should children or others be excluded from child care, school, work or other activities if they have Q fever?

No. Infants, toddlers and school-age children should not be excluded unless the staff determines the child is unwilling or unable to participate in activities. However, children should be excluded if the staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.

All others can attend work and other functions as long as they are well enough to do so. As always, good hand washing and respiratory etiquette is recommended.

What can be done to prevent the spread of Q fever?

- The best Q fever prevention is to keep the environment free from contamination.
- Placentas and uterine discharges, along with soiled straw and bedding from infected animals, should be burned or buried.
- Drink only pasteurized milk.
- Mechanical filter respirators (including certified dust masks) may be worn when cleaning buildings and other areas (calving barns or lambing sheds) where potentially infected animals have given birth.
- Your best safeguard against Q fever is to be aware of risks in your farming/ranching operation and to take the necessary precautions to protect yourself.

Additional Information:

For more information, call the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resources:

1. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [Children in Out-Of-Home Care]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 132-151.
2. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [Q fever]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 656-658.
3. Heymann, D. L. (2015). *Control of Communicable Diseases Manual, 20th Edition*. Q fever. American Public Health Association. 2015: 493-497.