

Q-Fever on the Farm

What is Q Fever?

Q Fever is a disease caused by the bacteria *Coxiella burnetii*. This bacterium is most frequently found in ruminants (cattle, sheep and goats) but can also be found in wildlife and pets.

How is Q Fever spread?

Q fever can be transmitted to people by breathing in dust that has been contaminated by infected animal feces, urine, milk, and birth products. Direct contact (e.g. touching, being licked) with infected animals (especially during birthing process) or materials contaminated with by-products of infected animal (e.g. used bedding, birthing fluids and tissues. Clothing soiled by animal fluids, excrement, or manure). People may also get sick with Q fever by eating contaminated, unpasteurized dairy products.

Where is Q Fever found on the farm?

C. burnetii bacteria are found in the birth products (i.e. placenta, amniotic fluid), urine, feces, and milk of infected animals.

How can I prevent the spread of Q Fever and other germs from animals to humans?

The organism can survive for long periods in the environment, and because animals may be infected but not have symptoms, these guidelines should be followed:

- Pregnant women, immune compromised persons, or those with prosthetic heart valves should ideally not have contact with the herd, and should definitely not assist in any birthing processes.
- Limit visitor access to animals. Personal protective equipment (PPE) is required to enter animal housing areas.
- Wash hands frequently, especially after direct contact with animals or animal by-products.
- Do not consume unpasteurized milk.
- When assisting with birthing, always wear gloves and other protective clothing (e.g., coveralls).
- Always remove soiled clothing and boots before entering the house.
- Dispose of fetuses, placentas and bedding contaminated with birthing fluids by deep burial rather than putting them in a manure or compost pile. Animal carcasses should be incinerated or digested.

What are the symptoms?

About 5 out of 10 people infected with *Coxiella burnetii* will get sick. Illness typically develops 2-3 weeks after being exposed to the bacteria. Signs and symptoms of Q fever may include:

- Fever
- Chills or sweats
- Fatigue (tiredness)
- Headache
- Muscle aches
- Nausea, vomiting, or diarrhea
- Chest pain
- Stomach pain
- Weight loss
- Non-productive cough

Symptoms can be mild or severe. People who develop severe disease may experience infection of the lungs (pneumonia) or liver (hepatitis).

Women who are infected during pregnancy may be at risk for miscarriage, stillbirth, pre-term delivery, or low infant birth weight.

How long does it last?

- Q fever can be successfully treated with antibiotics and recovery is quick

Risk factors for chronic Q fever

A very small percentage of people (less than 5%) who become infected with *C. burnetii* bacteria develop a more serious infection called chronic Q fever. Chronic Q fever develops months or years following initial Q fever infection. Chronic Q fever is serious and can be deadly if not treated correctly.

Chronic Q fever infection requires months of antibiotic treatment. Chronic Q fever is more likely to occur in people with heart valve disease, blood vessel abnormalities, or in people

with weakened immune systems. Women infected during pregnancy may also be at risk for developing chronic Q fever.

What should I do if I have symptoms?

Contact University Health Services at 608-265-5610 or your personnel care physician immediately.

References:

Centers for Disease Control and Prevention: <https://www.cdc.gov/qfever/index.html>

Colorado State University Extension:

<http://extension.colostate.edu/docs/pubs/livestk/08022.pdf>

Mayo Clinic: <https://www.mayoclinic.org/diseases-conditions/q-fever/symptoms-causes/syc-20352995>

The Center for food Security & Public Health:

<http://www.cfsph.iastate.edu/DiseaseInfo/disease.php?name=q-fever&lang=en>