

Q fever

Information for the Public

What is Q fever?

Q fever is a disease caused by the bacteria *Coxiella burnetii*. In people, the bacteria can cause a serious or a mild infection, or no symptoms at all. Q fever is classified as a 'zoonotic disease' because people can get the infection from animals. Infected animals shed the bacteria in milk, urine, and feces. During birthing, high numbers of bacteria are shed in the birthing fluids and the placenta.

Which animals get Q fever?

Cattle, sheep, and goats are the primary reservoirs. Cats, dogs, rodents, rabbits, marsupials, other mammals and wild and domestic birds can also carry the bacteria. Animals often do not show symptoms except for an increased risk of spontaneous abortion. Ticks are thought to help spread the infection from one animal to another.

How do people get Q fever?

Most cases occur after breathing in aerosols generated during birth of an animal. Persons most at risk for Q fever are farmers, veterinarians and others who work directly with animals or animal products. In addition, *Coxiella* bacteria can live for a very long time in the environment. Barnyard dust can become contaminated with *Coxiella* bacteria from animal excreta or birth fluids or placentas. Dust contaminated with the bacteria can spread through the wind over a wide area, causing infection in persons who have had no direct contact with animals. Consumption of unpasteurized milk or milk products can also cause infection in humans.

What are the symptoms of Q fever?

The incubation period for Q fever is 2-3 weeks, although about half of humans infected with *C. burnetii* do not have any symptoms.

People with Q fever can have high fevers, headache, muscle aches, chills, sweats, dry cough, nausea, vomiting, diarrhea, abdominal pain, chest pain, and other symptoms. Symptoms vary widely from one person to another.

Most persons with acute Q fever infection recover, but a few percent may have serious complications involving the lungs, liver, heart, and nervous system. Pregnant women who are infected may be at risk for pre-term delivery or miscarriage.

Chronic Q fever is a severe disease occurring in <5% of acutely infected patients. Pregnant women, persons with weakened immune systems and patients with heart valve defects or vascular defects are at highest risk for development of chronic Q fever. Endocarditis (bacterial infection of a heart valve) is the most common form of Q fever. Other forms of chronic Q fever include aortic aneurysms and infections of the bone, liver or the testes in males.

Division of Infectious Disease Epidemiology

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How do I know if I have Q fever?

Every case is different, and Q fever may be very difficult to diagnose. Your doctor will talk to you about blood tests and other tests. Sometimes a biopsy or a blood or tissue culture may be necessary for diagnosis. Many laboratories do not run tests for Q fever because the disease is so unusual, so your doctor will need to work with a specialized laboratory. Because the testing takes a while and the disease responds best if treated early, your doctor may recommend treatment before test results return.

How is Q fever treated?

Doxycycline is the treatment of choice. Young children, pregnant women and others may receive an alternative antibiotic. Persons with chronic Q fever require many months of treatment. Talk to your doctor about the best treatment for you. Many times, your doctor will consult with a specialist to determine the best options.

What is the best way to prevent Q fever?

People who work directly with animals such as cattle, goats and sheep - veterinarians, meat processing plant workers, farmers – should take extra precautions to prevent exposure to Q fever.

The following measures should be used in the prevention and control of Q fever:

- Appropriately dispose of placenta, birth products, fetal membranes, and aborted fetuses at facilities housing sheep and goats. Bury birth products if no other method of disposal is available.
- Restrict access to barns that house animals that might be infected.
- Use only pasteurized milk and milk products.
- Farmers and directors of other facilities that house animals should talk to their veterinarians about other means of prevention.

Questions?

Talk to your local health department or your doctor or veterinarian for more information. You can also call the Division of Infectious Disease Epidemiology at (800)-423-1271 or (304)-558-5358.

Also, look for more information at www.dide.wv.gov or www.cdc.gov

Based in part on:

CDC

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