

### What is Q fever?

Q fever is an infection caused by the bacteria *Coxiella burnetii* (*C. burnetii*). Q fever is usually a mild disease with flu-like symptoms. Many people have no symptoms at all. In a small percentage of people, the infection can reoccur years later.

### How is Q fever spread?

Q fever is spread to humans by animals, most commonly sheep, goats and cattle. When you inhale dust particles contaminated by infected animals, you may become infected. Drinking raw or unpasteurized milk from infected cattle can also cause infection. *C. burnetii* can survive for long periods of time in the environment and may be carried long distances by wind.

### What are the signs and symptoms of Q fever?

Many people infected with Q fever never show symptoms. If symptoms do occur, they may show up between three and 30 days after exposure to the bacteria. Signs and symptoms may include:

- High fever, up to 105°F (41° C)
- Severe headache
- Fatigue
- Chills
- Cough
- Nausea, vomiting, diarrhea
- Sensitivity to light

### Who is most at risk?

People who work with animals, including veterinarians, meat workers, dairy workers and farmers are at the highest risk to exposure.

Simply being near a farm or farming facility may put you at higher risk of Q fever, because the bacteria can travel long distances, accompanying dust particles in the air.

The risk of developing the more serious form of Q fever, called chronic Q fever, is more likely in people who have heart valve disease, blood vessel defects, weakened immune systems, or impaired kidney function. Chronic Q fever develops months or years following initial Q fever infection.

### What type of health problems are caused by Q fever?

A recurrence of Q fever can affect your heart, liver, lungs and brain, causing serious complications, such as:

- Endocarditis. An inflammation of the membrane inside your heart, endocarditis can severely damage your heart valves.
- Pneumonia. Infection or inflammation of the lungs can lead to acute respiratory distress, a medical condition in which you are not getting enough oxygen.
- Liver damage. Some people who have Q fever develop hepatitis, an inflammation of the liver that interferes with its function.

- Meningitis. Q fever can cause meningitis, an inflammation of the membrane surrounding your brain and spinal cord.
- Women infected during pregnancy may be at risk for miscarriage, stillbirth, pre-term delivery, or low infant birth weight.

### How is Q fever diagnosed?

To diagnose Q fever, your healthcare provider will perform one or more blood tests, along with additional tests if chronic Q fever is suspected. A chest X-ray can be used to see if your lungs look healthy. If chronic Q fever is suspected, your healthcare provider may take an echocardiogram to check for problems with your heart valves.

### How is Q fever treated?

Q fever is treated with the antibiotic doxycycline. How long you take the medicine depends on whether or not you have acute or chronic Q fever. For acute infections, antibiotic treatment lasts two to three weeks.

People who have chronic Q fever usually must take a combination of antibiotics for at least 18 months. Even after successful chronic Q fever treatment, you will need to go back for follow-up tests for years in case the infection returns.

Mild or non-symptomatic cases of acute Q fever often get better with no treatment. However, if you have symptoms of Q fever or

if you are pregnant, antibiotic treatment is recommended. Your treatment plan may vary if you are unable to take doxycycline.

### How can Q fever be prevented?

A Q fever vaccine has been developed in Australia for people who have high-risk occupations, but it is not available for the general public in the U.S. The vaccine may be available (in some areas) for people who work around pregnant sheep and goats.

Regularly clean and disinfect, particularly of areas where animals give birth. Avoid activities that may cause bacteria to contaminate the air, such as manure spreading, during windy conditions. Good tick control is also generally recommended.

Whether you are at high risk of Q fever or not, it is important to use only pasteurized milk and pasteurized milk products. Pasteurization is a process that kills bacteria.

### Where can I get more information?

- Your personal healthcare provider
- [Centers for Disease Control and Prevention](#)
- [Mayo Clinic](#)
- [The Center for Food Security & Public Health](#)

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