

## Q Fever in humans

People get infected by breathing in dust or airborne droplets containing the bacterium *Coxiella burnetii* when having direct or indirect contact with infected sheep and goats.

After an infection with *Coxiella burnetii* 60 % of infected people are asymptomatic, however 40 % show clinical symptoms for Q fever such as:

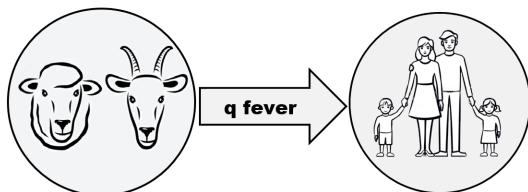
- Flu-like symptoms like e.g. heavy retroorbital headache, high temperature, weariness, aching limbs, chills
- Pneumonia
- Inflammation of liver

If you believe you or your family members are suffering from any of the above symptoms, consult your general practitioner or the local health authorities. Q fever can be detected by means of a blood test.

When Q fever is detected the disease can be targeted effectively by antibiotics.

Testing for Q fever as well as early and targeted therapy in humans are important .

Protect your health and your family's health !



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## Who can I turn to?

### Q-GAPS

Q-Fever GermAn Interdisciplinary Program for ReSearch

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# Q-Fieber

A Risk for Humans and Animals



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Information on Q Fever  
in Humans &  
Small Ruminants



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# Q Fever

## What is it all about?

The bacterium *Coxiella burnetii* is a pathogen which causes a human and animal disease called Q fever or coxiellosis .

The pathogen can be transferred from animals to humans.

In Germany, humans mainly get infected by the pathogen during lambing season. Cattle and other species are less frequently the source of Q fever infections in humans.

## Q fever in sheep & goats

Sheep and goats can get infected with *Coxiella burnetii* by inhaling dust or droplets containing bacteria in the environment or get infected via other routes.

Infected small ruminants shed *Coxiella burnetii* in large quantities together with birth fluids and the afterbirth, especially when giving birth. In addition, there is shedding of bacteria via milk, urine and faeces.

Especially sheep can experience an infection with *Coxiella burnetii* without any clinical signs of disease. However, the following symptoms indicative of Q fever should be taken seriously in small ruminants:

- Abortion
- Stillbirths
- Delivery of weak offspring (lambs/ calves)
- Delayed expulsion of the afterbirth

## Q fever in my herd/flock - What to do if Q fever is suspected?

Should your sheep or goats show signs of Q fever, have your animals examined by your veterinarian.

The most meaningful test for verifying Q fever is the molecular biological analysis of afterbirth material, dead lambs/kids/calves, vaginal swabs or preputial swabs for detecting pathogen DNA.

Using this analysis, a current shedding of *Coxiella burnetii* can be detected .

Blood analysis of antibodies does not reliably detect an acute infection, however, shows a recent infection.

## What to do after a diagnosis?

Q fever is a reportable animal disease in Germany. When Q fever is detected in your herd/ flock spreading of infection to other animals and to humans should be prevented .

**Q fever is a risk for the health of humans  
and small ruminants**

**Take measures  
in veterinary herd health management  
as well as in hygiene!**

## Q Fever Control Measures:

- ✓ Make sure births and shearing occur in closed premises .
- ✓ Store afterbirth material in a closed container until they will be disposed of by rendering plants (animal by-products processing plants) .
- ✓ Disinfect your working clothes and working material .
- ✓ Inform your colleagues and family members about necessary protective and hygiene measures. Special care should be taken with pregnant women. Their presence and the exercise of activities should be avoided in the event of Q fever outbreak.
- ✓ Post a sign near your stables:  
"Valuable livestock – Do Not Enter. – Authorized Personnel Only."
- ✓ Prevent non-authorized people from getting access to your sheep and goats.
- ✓ Don't offer raw milk or raw milk products to consumers and stand down from drinking raw milk and eating raw milk products. The process of pasteurisation results in inactivation of the pathogen .
- ✓ Store sheep and goat manure under foil for 9 months as well as away from the population, before manure is applied to fields .
- ✓ Have your flock/herd vaccinated against *Coxiella burnetii*.

**TIP** Further information as to Q fever:  
[www.q-gaps.de](http://www.q-gaps.de) or [info@q-gaps.de](mailto:info@q-gaps.de),  
Flyer "Information for the General Public on Q Fever in Humans"