What is **Q** fever

Q fever is an illness caused by a bacterium called *Coxiella burnetii* (*C. burnetii*) which can be caught by humans via direct or indirect contact with infected animals or animal products.

Although infected animals can transmit disease to humans, most animals do not show symptoms or get sick.

The illness in humans is usually mild, but may sometimes be severe with long lasting consequences.

Who is at risk?

People at increased risk of Q fever infection include:



Farmers, shearers, abattoir and stockyard workers



Livestock transporters, tanning and hide workers



Veterinarians, veterinary staff and veterinary students



Professional cat and dog breeders and handlers



Wildlife and zoo-workers working with high-risk animals



People living in at-risk environments



Laboratory personnel handling veterinary specimens or working with the bacteria

How can you help prevent Q fever?

Preventative measures for Q fever include reducing the spread of the bacteria. These involve:



Washing hands and arms thoroughly in soapy water after handling animals or carcasses.



Washing animal body fluids from the work site and equipment.



Minimising dust and rodents in slaughter and animal housing areas.



Keeping yard facilities for sheep and cattle well away from domestic living areas.



Removing protective and/or other clothing that may carry the bacteria before returning to the home environment.



Properly disposing of animal tissues including birthing products.



When working in at-risk environments, wearing disposable face masks that are properly fitted (P2/N95 masks) to help filter small air particles and reduce the risk of airborne transmission of Q fever.



Vaccination can also help prevent Q fever infection, and may be recommended for those who are at risk and are appropriate candidates for vaccination.

More Information

For more information on Q fever and ways to help protect against Q fever, please speak to your doctor or visit **www.qfeverfacts.com.au**

SeqirusTM (Australia) Pty Ltd. ABN 66120398067.63 Poplar Road, Parkville Australia 3052. www.seqirus.com.au SeqirusTM is a trademark of Seqirus UK Limited or it's affiliates. Date of preparation July 2019. SEQ/QVAX/0617/0025(2)





Australian Government Department of Health

ARE YOU CATCHING MORE THAN GRASS CLIPPINGS?



WAKE UP TO THE FACTS ON **Q FEVER**

ACTIVITIES IF YOU ARE AT RISK

www.qfeverfacts.com.au

Q FEVER IS MAINLY SPREAD FROM ANIMALS TO HUMANS VIA INHALATION OF INFECTED PARTICLES IN THE AIR.

How does Q fever spread?

Q fever is mainly spread from animals to humans via inhalation of infected particles in the air; however other less common routes of infection include contact with infected animal products such as birth products (placenta), milk, urine and faeces.

Cattle, sheep, goats, camels, cats, dogs and even native animals such as bandicoots and kangaroos can transmit the disease to humans.

What are the symptoms?

Following infection by *C. burnetii*, at least 50% of people show no symptoms. However, some people experience 'acute' symptoms that are often described as being similar to having the 'flu'.

Clinical features of acute Q fever can present as:

- high fever
- shivering or shaking
- profuse sweating
- extreme fatigue
- muscle and joint pain
- severe headache
- sensitivity to light
- nausea and diarrhoea
- weight loss



Other forms of Q fever

Furthermore, in 10-15% of individuals who have suffered from an acute case of Q fever, a condition known as post Q fever fatigue syndrome (QFS) may develop, characterised by incapacitating fatigue amongst other symptoms.

Another form of Q fever, called 'chronic Q fever', sometimes develops months or even years after the initial episode of Q fever, even in patients that did not have any symptoms to start with.

INFECTION BY C. burnetii

Either

May develop either or both

Typically after 2-3 weeks

Acute Q fever

Following infection by

C. burnetii, at least 50% of people show no symptoms.

pople show no symptoms.

Typical symptoms of acute Q fever are often described as being similar to having the flu, and if untreated, can last 1 to 6 weeks. People may also develop inflammation of the liver or infections of the lungs.

After 1 month - several years

No symptoms

Chronic Q fever

Q fever may also develop into a persistent infection with long lasting symptoms, even without an acute illness. This can occur in 2-5% of infected people, but is more common for pregnant women, people with weakened immune systems or previous problems with heart or blood yessels

After > 12 months

Post Q fever fatigue syndrome (QFS)

Approximately 10-15% of individuals who have suffered from an acute case of Q fever may develop persistent fatigue amongst other symptoms, including joint pain, muscle pain, memory and concentration problems, sleeping problems, sweats or headaches.

Persistent infection of *C. burnetii* can involve:

Heart

An infection involving the heart valves occurs in about 2% of acute Q fever patients, which more commonly develops in people with certain heart problems.

Bone and joints

Infections in multiple locations of the bone and joint areas occurs in <1% of hospitalised Q fever cases and may commonly present with pain in various bones and joints, amongst other symptoms.

Blood vessels

Infection of the blood vessels can occur in infected patients who have had pre-existing conditions or surgery of the blood vessels.

This can remain a severe disease.

References: 1. Australian Immunisation Handbook Online. Q fever. 2. CDNA. National Guidelines for Public Health Units: Q fever. Nov 2018. Available via https://www.health.gov.au/internet/main/publishing.nsf/Content/56DFBAB2346 8BF7ICA258352000IF02F/\$File/Q-fever-SoNG2018.pdf [cited 24 July 2019] 3. Ammersorffer A. et al. In: Simoes JCC et al., editors. The Principles and Practice of Q fever. New York: Nova Sciences Publishers Inc. 2017. p. 91-106 4. Million M. et al. Recent advances in the study of Q fever epidemiology, diagnosis and management. Journal of Infection 2015; 71, Suppl 1, S2-59.