

# Q fever



Q fever is an infection caused by *Coxiella burnetii*, a type of bacterium found worldwide, except in New Zealand.

The infection is almost always related to direct or indirect contact with animals such as cattle, sheep or goats, although a wide range of animals including cats, dogs and kangaroos may carry the infection. Infection in animals is probably common, but infected animals often have no signs or symptoms.



Q fever is a notifiable condition<sup>1</sup>

## How Q fever is spread

The bacteria pass into milk, urine and faeces of infected animals and during birthing, large numbers of organisms are shed in the birth products. Q fever organisms are resistant to heat, drying and many common disinfectants, allowing them to survive for long periods in the environment.

Infection of humans usually occurs by inhalation of the bacteria in air carrying dust contaminated by dried placental material, birth fluids, urine or faeces of infected herd animals. Contaminated clothing, wool, hides or straw may also be a source of infection. Person-to-person spread is extremely unlikely.

Usually, Q fever is an occupational disease of meat workers, farmers and veterinarians (vets). People living within 1 kilometre downwind of an abattoir are also at increased risk of infection.

## Signs and symptoms

Only about half of all people infected with *Coxiella burnetii* show signs of clinical illness. However, onset of symptoms is usually sudden, with one or more of the following:

- > fever, which may last up to 4 weeks
- > severe headache
- > sweats and chills
- > fatigue – and prolonged fatigue (post Q fever fatigue syndrome) may follow infection
- > muscle aches
- > confusion
- > sore throat
- > dry cough
- > chest pain on breathing
- > nausea, vomiting
- > diarrhoea
- > abdominal pain.

Up to half of symptomatic cases will develop pneumonia (lung infection or inflammation) and many people will have inflammation of the liver (hepatitis). However, most people will recover within several months without any treatment and only 1 to 2% of people with acute Q fever die of the disease.

Some people may develop chronic Q fever after exposure. Infection persists for more than 6 months and may not be apparent until many years after the initial infection. While rare, it can have serious complications such as endocarditis (infection of the heart valves).

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People most at risk of developing chronic Q fever include:

- > those with underlying heart abnormalities
- > transplant recipients
- > cancer patients
- > those with chronic kidney disease.

## Diagnosis

Diagnosis is made by a series of blood tests.

## Incubation period

*(time between becoming infected and developing symptoms)*

Usually 2 to 3 weeks, range 4 days to 6 weeks.

## Infectious period

*(time during which an infected person can infect others)*

Person-to-person spread occurs rarely.

## Treatment

Effective antibiotic therapy is available. With early diagnosis, treatment is simple and a good outcome can be expected.

## Prevention

Exclusion from childcare, preschool, school or work is not necessary.

Do not drink [unpasteurised milk](#)

## Immunisation

A Q fever vaccine is available in Australia and is 83 to 100% effective in preventing the disease. However, the vaccine can only be given to individuals 15 years of age and over.

Prior to immunisation, a blood and a skin test is recommended to see if the individual has previously been exposed to Q Fever – either naturally or by previous vaccination. Vaccinating those already exposed to Q fever can result in severe reactions.

Vaccination will not prevent disease in someone who has already been infected but is in the incubation period of the disease.

Q fever vaccination is recommended for:

- > abattoir workers and contract workers in cattle, sheep dairy and goat abattoirs (but not pig abattoirs)
- > farmers, stockyard workers and livestock transporters
- > agricultural college staff and students, and wildlife and zoo workers exposed to high-risk animals
- > shearers and wool sorters
- > veterinarians, veterinary nurses and students
- > professional dog and cat breeders, tanning and hide workers and laboratory personnel handling veterinary products or working with the organism
- > others exposed to cattle, camels, sheep, goats and kangaroos or their products.

People considering immunisation against Q fever should contact their doctor.

For further information, visit the [Australian Q Fever Register website](#).

# Q fever



## Useful links

- > [When you have a notifiable condition](#)
- > [Milk - pasteurised v raw](#)

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1 – In South Australia the law requires doctors and laboratories to report some infections or diseases to SA Health. These infections or diseases are commonly referred to as 'notifiable conditions'.

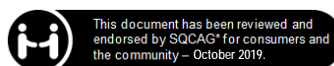
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