



# Q Are You At Risk Of Q Fever?

## What is Q fever?

Q fever is a severe, acute febrile illness, which is a major problem in Australia and around the world. It is a zoonotic disease (i.e. spread from animals to humans) caused by the organism *Coxiella burnetii*.

Cattle, sheep and goats are the main reservoirs for infection in humans – although bandicoots, kangaroos and dogs also can be infected. Several species of ticks are infected and parasitic bush animals.

VACCINATE AGAINST Q FEVER



Pioneer Health Albany  
2 Pioneer Road  
Centennial Park WA 6330  
(08) 9842 2822  
admin@pioneerhealth.com.au  
[www.pioneerhealth.com.au](http://www.pioneerhealth.com.au)



## Human beings are infected with *C burnetii* by direct or indirect contact with infected animals, or products from these animals.

Infected animals shed *C burnetii* in: urine, milk, faeces and birth products (in particularly high numbers). The most common route of infection is via the respiratory tract after inhalation of contaminated aerosols (fine droplets or dust) generated during parturition, or during the slaughtering process. Soil and dust in animal holding areas may be contaminated with the organism from infected birthing animals, and the infected dust may be carried on work clothing, hair, straw, and other fomites, or on working dogs.

Once infected, 40% of patients develop Acute Q fever, which is a severe flu like illness. Patients may have liver and lung involvement as well as neurological manifestations. Whilst the initial acute illness resolves in 2 to 6 weeks, return to full health may be slow in many patients. Many have headache, joint and muscle pain, unusual fatigue, night sweats, mood changes and loss of libido during the next 6-12 months. 10 to 30% of patients with Acute Q fever go on to develop Chronic Q fever.

### Chronic Q fever can take one of three forms:

- i. Post Q fever fatigue syndrome (QFS): fatigue and disability lasting beyond a year and frequently more than 5 to 10 years.
- ii. Q fever endocarditis: infection and damage to the heart valves which may lead patients to require open heart surgery to have damaged valves replaced.
- iii. Continuing granulomatous infection: areas of infection in bones, liver, testes or other organs.

## Who is at risk of Q fever?

Q fever is principally an occupational infection particularly for workers in the livestock rearing and meat processing industries and in their dependent trades. However, individuals in the community may be infected – e.g. by direct or indirect airborne infection from parturient animals, visits to stock sale yards, exposure to animal transporters, or residence near feed lots or abattoirs.

### Examples of persons at risk of Q fever

- Shearers
- Shepherds
- Wool sorters
- Dairy workers
- Farm workers
- Abattoir workers
- Veterinary personnel
- Pelt and hide tanners
- Livestock transport workers
- Staff in veterinary microbiology labs
- Maintenance engineers, electricians, plumbers, etc in risk environments
- Visitors to at-risk environments – e.g. research workers, teachers, school students, insurance agents, sales people, etc

## Heart and Pregnancy

Women entering an at-risk occupation should be advised to seek Q fever vaccination before considering pregnancy – to avoid possible devastating risks to the foetus.

Persons with cardiac abnormalities are at increased risk of Q fever endocarditis and should be offered vaccination.

**Pregnant women and children should not receive Q fever vaccination.**

### Should I have a Q fever vaccination?

The main way of preventing Q fever is through vaccination. An effective vaccine against Q fever (Q-VAX) has been available since 1989.

If you fall into one of the at risk categories described, a Q fever vaccination is recommended for you. Ideally, vaccination should occur at least 2 to 3 weeks before the person starts working in an at-risk environment (as the risk of infection is highest in the first few years).

### What does a Q fever vaccination entail?

#### Q fever vaccination requires two visits to Pioneer Health spaced 7 days apart.

At the first visit the doctor will undertake a pre-vaccination screening to ensure that you have not already been exposed to Q fever. This is achieved via an interview, a blood test and a skin test. It is very important for the doctor to ensure that you have had no previous exposure to Q fever, as vaccination of previously exposed patients can lead to severe adverse reactions like significant swelling at the vaccination site.

At the second visit the doctor will interpret your blood test and skin test. **It is important that the second visit occurs 7 days after the first visit**, in order to allow reliable interpretation of the skin test. If the doctor has confirmed that you have no previous exposure to Q fever, you will receive the Q fever vaccine via a subcutaneous injection.

The Q fever vaccine is strongly protective with an estimated vaccine efficacy of 83-100%. Duration of immunity is unknown, but is believed to be in excess of 5 years.

**You will never require a booster of the Q fever vaccine.**

Reactions to the vaccine are usually minor and include tenderness and redness at the vaccination site. You will be provided with a comprehensive list of potential vaccine adverse reactions prior to vaccination.

### How much does Q fever vaccination cost?

See our website for an up to date fee structure [www.pioneerhealth.com.au/qfever/fee](http://www.pioneerhealth.com.au/qfever/fee) The fee is payable at the first consultation and covers costs for the two consultations with the doctor, the skin and blood tests, and the vaccine. If the vaccine cannot be administered a refund for the vaccine will be made.

*Please note that some employers may bear the cost of the vaccination.*

