

# Q fever vaccination



**Q fever is an infection spread to humans from animals, mainly cattle, sheep and goats. It can cause a severe flu-like illness and long-term health problems. Vaccination is the most effective way to prevent infection and is recommended for those who work, live in or visit high risk environments. Talk to your doctor to see if vaccination is right for you.**

## What is Q fever?

Q fever is a disease caused by bacteria that is spread to humans from animals. It can cause flu-like symptoms that can be severe. Some people experience long-term health issues following infection.

Cattle, sheep and goats are the main sources of infection; however, a wide range of domestic and wild animals can spread the infection to humans. Infected animals usually do not appear to be sick.

Most infections occur from breathing in air or dust contaminated with Q fever bacteria from animal birth fluids, tissues or excretions. The bacteria survive well in air, soil and dust and can infect animal products and materials such as clothing and straw.

## Who should be vaccinated?

People whose work puts them in contact with high-risk animals or animal products have a high risk of getting infected with Q fever. The vaccine is strongly recommended for people aged 15 years and over who work in high-risk occupations.

People can also be infected outside of work especially in regional and rural areas by breathing in infected particles and dust in the environment. Vaccination is also recommended for anyone aged 15 years and over who may come into contact with Q fever bacteria during activities outside of work or in the areas in which they live, work or visit. Your doctor will help you decide if vaccination is right for you.

## Who should not be vaccinated?

Not everyone can be vaccinated. Those with a known allergy to egg proteins should not be vaccinated. Pregnant women, children under 15 years of age and those with weakened immune systems should obtain specialist advice before considering vaccination. For all others, pre-vaccination screening is necessary to identify who can be vaccinated.

## Is the Q fever vaccine effective?

The Q fever vaccine (Q-VAX®) has been licensed for use in Australia since 1989 and has shown to be highly effective in preventing Q fever infection in humans. Since the introduction of the vaccination for high-risk occupations, the rates of Q fever infection have dropped markedly. The vaccine is made in Australia.

## What is pre-vaccination screening?

To avoid the risk of a severe reaction the vaccine should only be given to those who have not been in contact with the bacteria in the past. Pre-vaccination screening has 3 stages:

1. an interview with your doctor about Q fever infection or past vaccination
2. blood test to check for immunity
3. skin test to check for immunity

It is possible to have been in contact with Q fever bacteria and not get sick so pre-vaccination screening is essential. Both tests are needed as they are looking for different types of immunity.

## What happens at the skin test?

If you don't know that you have been infected with Q fever or vaccinated in the past, your doctor will carry out a skin test. This involves a small injection of dilute Q fever vaccine given under the skin on the inside of your forearm. Seven days later your doctor will examine the injection site. A lump or swelling at the injection site is a positive reaction.

## What does a positive result on blood test or skin test mean?

A positive skin test or blood test indicates that you have been in contact with Q fever bacteria in the past. In this case, you cannot be vaccinated as you are at an increased risk of a serious reaction to the vaccine. It is likely that you are immune to Q fever infection. You may commence work immediately in a high-risk occupation.

It is possible to be positive on either the skin test or blood test and negative on the other. To avoid the risk of a severe reaction, the vaccine should only be given to those who are negative on both tests.

## Is the Q fever vaccine safe?

The vaccine has been shown to be safe provided the screening tests mentioned above are done. Minor skin reactions are common 3 to 4 days after the initial skin test, however, these reactions generally resolve by day 7 when the skin test is read by your doctor. Common side effects to the vaccine include injection site reaction (pain, heat, swelling and redness), flu-like symptoms, headache and fever. Serious side effects are very rare. The vaccine is not a live vaccine and cannot cause Q fever infection.

If you are concerned about any side effect after vaccination you should discuss this with your doctor.

## What should be considered before vaccination?

- Check that your GP offers Q fever screening and vaccination before booking an appointment
- Allow two GP visits to complete both pre-vaccination screening (including a blood test and a skin test) and vaccination. These visits should be 7 days apart
- Only book the first appointment when you are able to return in 7 days to have the injection site examined by a doctor. If eligible, vaccination can be given at the second appointment. The vaccine is a single injection given in the upper arm
- The vaccine and the skin testing is not government funded. Speak to your doctor or employer about the costs involved. Costs are tax deductible for most at-risk occupations

## What should be considered after vaccination?

- Allow 15 days after vaccination before starting work in an at-risk environment. Under work health and safety legislation you will be refused entry to high risk areas of the workplace until 2 weeks from the date of vaccination
- Keep the record provided by the GP in a safe place as you may be asked for it at a later date, particularly if you change jobs as your new employer will need this evidence

## Are there other ways to prevent Q fever if vaccination is not possible?

Vaccination is the most effective way of protecting yourself against Q fever. For those who are unable or choose not to be vaccinated there are other measures that you can take to reduce your risk of infection. Read the factsheets for [Q fever](#) and [Q fever and farms](#) for advice.

### Further information

See related factsheets [Q fever](#), [Q fever and farms](#) and [Q fever for veterinary staff](#).

For further information call your local public health unit on **1300 066 055**.

See the [ATO decision for tax deductibility of Q fever vaccination](#).