

Q-Vax Patient Information



What is Q-fever?

Q-fever is a common and very unpleasant illness. It is caused by infection with a small bacterium called *Coxiella burnetii*. Q-fever infection can result in death but this is rare. More commonly Q-fever infection can damage the heart valves or cause chronic fatigue.

Q-fever occurs all over the world and is common in Queensland.

The bacteria are present in cattle, sheep, goats and many wild animals such as kangaroos and wild pigs. The infection can be acquired by inhaling small droplets of the bodily fluids of an animal carrying the bacteria or more commonly by inhaling dust particles containing the bacteria.

Why test before vaccination?

A very safe and effective vaccination to prevent Q fever, called Q-vax, is available in Australia.

Many people have had contact with Q-fever previously and don't realise it. It's not safe to give Q-vax to people who already have some immunity to Q-fever as they may develop an abscess or boil at the vaccination site due to their immunity attacking the vaccine under the skin.

Two tests are performed on people presenting for the Q-fever vax to make sure vaccination is safe.

If one or both tests are positive, it is unsafe and unnecessary to proceed with the vaccination as this means the person already has some immunity.

In this case, the person will be given documentation which will allow them to attend placements involving animal work.

Facts about testing

The two tests performed on people presenting for the Q-fever vax are a blood test and a skin test.

Both tests are performed on the first day of the program and the patient then returns to the clinic a week later for the results to be assessed.

The first test is an ordinary blood test looking for antibodies to the bacteria.

The second test is a skin test using diluted Q-fever vaccine. The skin test doesn't contain any live material so it can't cause Q-fever or any other infection.



"A small amount (0.1ml) of the skin test solution is injected into the skin of the forearm. A stinging sensation may be felt for a couple of seconds and a small lump will appear immediately, but will disappear within minutes of the injection.

To ensure the skin test is accurate it is very important not to bandage, scratch or be bitten by insects on or near the skin test site until the test is read on the second visit one week later.

If a person has some immunity or an adverse reaction to the Q-vax, a tiny lump usually no larger than 5mm in diameter, will appear as a delayed event a few days afterwards at the site of the skin test and will remain for a few weeks. It is usually pink in colour and can be mildly itchy.

If the person has no immunity to Q fever or the vaccine, no lump will appear at the skin test site.

Who shouldn't be vaccinated?

- X** The Q-vax is not given if the blood or skin test is positive.
- X** The vaccine is also not given to pregnant women, as there is no data about its safety in this group.
- X** The vaccine is not given to people who have very serious allergic reaction to eggs. If a person can eat food such as cakes and biscuits containing egg then it is safe to have the vaccine.
- X** The vaccine is not given to persons with impaired immunity as the vaccine might not work and interpretation of the skin test might be very difficult in this group.

After the vaccination

It is common to experience some local soreness and redness at the vaccination site (up to 50% of people having the Q-vax).

The vaccine strongly boosts the immune system and this can cause about 10% of people to feel mildly unwell possibly with a mild headache for a few hours a day or two after being vaccinated.

Some lumpiness at the vaccination site is relatively common and can be very delayed (appearing weeks or months after the vaccination) especially in small or low bodyweight people.

If concerned consult a doctor experienced with Q-fever vaccination as almost always these lumps are harmless and disappear without any treatment. These lumps should not be removed surgically as this is unnecessary and will result in scarring.

It takes approximately two weeks to be protected against Q fever following vaccination. No vaccination is 100% effective in preventing infection but Q-vax has a very low failure rate. Q-fever vaccination is a once in a lifetime treatment providing a high level of protection for many years, therefore boosters aren't necessary and could cause a severe local reaction.