

Brucellosis

This is a bacterial infection caused by a number of types of *Brucella* bacteria (*Brucella abortus*, *B. melitensis*, *B. suis*, and *B. canis*). The bacteria are usually found in cattle, pigs, goats, sheep, working dogs and domestic animals, and can cause illness in these animals.

B. abortus was successfully eradicated from cattle herds in Australia in 1989. *B. melitensis* and *B. canis* infections do not occur in Australia. Overseas travellers to areas where these infections are present may develop illness while overseas or on returning to Australia.

B. suis is found in some populations of feral pigs in Queensland and rarely spills over into domestic pigs. It remains a potential source of human infection in Australia.

Symptoms in humans include:

- > continuous or intermittent fever
- > headache
- > weakness
- > profuse sweats
- > chills
- > joint pains
- > aches
- > weight loss.

The infection can affect the liver and spleen, and may last for days or months, and sometimes for a year or more if not treated.

Joint complications and involvement of the testes and epididymis (storage tubes for sperm) are common. Recovery is usual but relapses can occur. Death can occur from inflammation of the lining of the heart (endocarditis) but this is very rare.

Diagnosis is made by growing *Brucella* bacteria from the blood, bone marrow or other infected body tissues or from discharges from infected body tissues. Blood tests are also used to make the diagnosis.

Brucellosis is mainly an occupational disease of farm workers, veterinarians and abattoir workers. Outbreaks can occur among consumers of raw or unpasteurised milk or milk products made from raw or unpasteurised milk from cows, sheep and goats. The infection is spread by contact of infected animal tissue with breaks in the skin (open cuts or sores) and the ingestion of untreated milk and dairy products from infected animals. The bacteria can also be inhaled in dusty animal enclosures, abattoirs and laboratories.

Incubation period

(time between becoming infected and developing symptoms)

Usually 5 – 60 days, occasionally several months.

Infectious period

(time during which an infected person can infect others)

There is no evidence of person to person spread.

Treatment

Human cases can be treated with a combination of antibiotics, usually for at least 6 weeks. If relapse occurs, 3 months of antibiotic treatment is needed.

Control of spread

- > Control is best achieved by eliminating the disease in animals.
- > Avoid drinking raw or unpasteurised milk and products made from raw or unpasteurised milk.
- > Educate farmers, abattoir workers and other occupational at risk groups on how to prevent infection when handling potentially infected animal products.
 - cover all cuts and sores with dressings
 - wear gloves, overalls and face masks when slaughtering animals or handling animal products.
 - thoroughly wash hands and arms after handling animals or their products.
 - take special care when handling animal birth products.
 - thoroughly clean all working areas.
- > Exclusion from work is not necessary.
- > A vaccine is not available for use in humans



Brucellosis is a notifiable disease

- > Hand hygiene
- > Keeping areas clean