

## Brucellosis

### Background Information

Brucellosis (also known as undulant or Mediterranean fever) is a highly transmissible bacterial infection, acquired from infected cattle, sheep, goats and their products.

### Organism

The following organisms can cause brucellosis:

- *Brucella abortus* (cattle, camels)
- *Brucella suis* (pigs)
- *Brucella ovis* (sheep, goats)
- *Brucella melitensis* (sheep, goats, camels) – not found in the UK
- *Brucella* species found in dogs and marine mammals occasionally cause human infections.

### Incidence and Transmission

Brucellosis in cattle was eradicated from Great Britain in 1979, but is sporadically reintroduced, with the last case reported in Cornwall in 2004. In Northern Ireland there remains a low level of endemic infection in cattle herds. The disease causes abortion and infertility in infected animals, although infected animals can remain healthy.

Human cases of brucellosis are very rare in the UK, with almost all cases acquired abroad. Infection can be via ingestion, inhalation or direct inoculation. Transmission is most commonly via direct or indirect contact with infected animals or ingestion of unpasteurised milk or milk products. Very small numbers of bacteria are required to cause infection.

Human to human spread can occur but is very rare, with occasional cases of mother to child or sexual transmission.

### Occupations and processes where brucellosis presents a risk

Occupational exposure to *Brucella* species may occur in those who:

- are in contact with infected animals; or
- work with materials or products from infected animals, in particular aborted foetuses and placentas.

Occupations where there may be a risk of occupationally acquired brucellosis include:

- farm workers;

- dairy workers;
- veterinary surgeons;
- zookeepers; and
- abattoir workers, meat processing plant workers and butchers.

### **Clinical Information**

The incubation period is usually 5–30 days but may be up to 6 months. Infection may be present for several months before onset of symptoms.

*Brucella* species cause a diverse range of symptoms. The major clinical features are prolonged fever, weight loss, sweating, headache, lethargy, joint pain, debilitation and anorexia. Arthritis affecting the large joints and the spleen is also common.

Anyone with these symptoms who has been in close contact with animals or their products should seek medical attention. Antibiotic treatment is available and the disease is only rarely fatal where no treatment is given.

### **Control**

The following control measures reduce the risk of infection:

- Good animal husbandry should be carried out.
- Animal birth products should be disposed of appropriately.
- Suitable protective clothing should be worn.
- Good occupational hygiene practices should be followed, especially washing with warm water and soap.
- Cuts and abrasions should be covered with waterproof plasters.
- A suitable disinfectant should be used.
- Unpasteurised milk or milk products should not be consumed.

### **Further Information**

[Public Health England – Brucellosis information](#)

[World Organisation for Animal Health – Brucellosis](#)