



## Hawaii State Department of Health

### Disease Investigation Branch

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## Brucellosis

(undulant fever, Bang's disease)

### What is brucellosis?

Brucellosis is a disease caused by *Brucella* bacteria, which are mainly spread among animals. Brucellosis is found in many parts of the world and can be spread easily through the air. This organism is of concern as a possible bioterrorist weapon.

### How do you get it?

Humans can become infected by coming in contact with animals or animal products that are contaminated with the *Brucella* bacteria. This can occur in three ways: eating or drinking something that is contaminated with *Brucella*, breathing in the organism (inhalation), or having the bacteria enter the body through skin wounds.

The most common way humans become infected is by eating or drinking contaminated milk products. When sheep, goats, or cows are infected, their milk is contaminated with the bacteria. If the milk is not pasteurized (heated), these bacteria can be spread to persons who eat or drink the milk products.

Breathing in *Brucella* organisms is not a way of becoming infected, but it can be an important danger for people in certain jobs, such as those working in laboratories where the organism is grown.

Contamination of skin wounds may be a problem for persons working in slaughterhouses or meat packing plants or for veterinarians. Hunters may be infected through skin wounds or by accidentally ingesting the bacteria after cleaning infected animals. Hunters should use rubber gloves when skinning and gutting animals.

This disease is not usually spread person to person. However, there have been rare cases of sexual and breast-feeding spread.

### What are the symptoms of brucellosis?

Symptoms include fever, sweats, headaches, back pain and physical weakness. Severe infections of the central nervous system (brain and spinal cord) or lining of the heart may occur. Sometimes, brucellosis can cause long-lasting or chronic symptoms that include repeated fevers, joint pain, and fatigue (tiredness).

### When do symptoms start?

The symptoms usually begin 5 to 60 days after exposure to the bacteria with onset of 1-2 months commonplace.

### What is the treatment for brucellosis?

Early treatment is important in brucellosis cases. A doctor can prescribe the appropriate medicines to treat the infection.

### How can you keep from getting it?

- Do not drink unpasteurized (raw) milk or eat dairy products (including cheese) made from unpasteurized milk.
- Avoid contact with tissues, blood, urine, and aborted fetuses from infected animals.
- Dogs can become infected and spread brucellosis. If you think your pet has been infected, call your veterinarian. People with immune system deficiencies should not handle dogs infected with brucellosis.

For more information, see the CDC's website at [http://www.cdc.gov/ncidod/diseases/submenus/sub\\_brucellosis.htm](http://www.cdc.gov/ncidod/diseases/submenus/sub_brucellosis.htm)