



Hawaii State Department of Health Disease

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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 that humans become infected is by eating or drinking contaminated milk products. When sheep, goats, or cows are infected, their milk is contaminated with *Brucella*. If the milk is not pasteurized (heat-purified), persons who eat or drink the milk products can swallow *Brucella*.

Breathing in *Brucella* organisms is not a common way of becoming infected, but it can be a hazard for people in certain jobs, such as persons 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.

Direct person-to-person spread of brucellosis is very rare. However, sexual and breast-feeding transmission of *Brucella* has been reported.

What are the symptoms of brucellosis?

Symptoms include fever, sweating, 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, *Brucella* can cause long-lasting (chronic) symptoms that include repeated fevers, joint pains, and fatigue (tiredness).

When do symptoms start?

Symptoms usually begin 5-60 days after exposure to *Brucella*. 1-2 months is common. Sometimes, it takes several months for symptoms to appear.

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 <https://www.cdc.gov/brucellosis/index.html>