

## Brucellosis

### Undulant Fever

#### What is brucellosis and what causes it?

Brucellosis is an infectious disease caused by bacteria called *Brucella* (bru-CELL-a). Many different animal species and humans can become ill. Brucellosis is primarily a reproductive disease in animals, but it can also cause reoccurring fevers, arthritis or udder infection (mastitis).

#### What animals get brucellosis?

Brucellosis can affect sheep, goats, cattle, pigs, horses, and dogs. Brucellosis can also affect rats and wild animals including deer, bison, elk, moose, camels, water buffalo, and marine mammals.

#### How can my animal get brucellosis?

In animals, *Brucella* are usually spread through contact with infected birthing tissues and fluids (e.g., placenta, aborted fetuses, fetal fluids, vaginal discharges). The bacteria can also be found in the milk, blood, urine and semen of infected animals.

Animals can get the bacteria by ingestion (**oral**), **direct contact** with mucous membranes (eyes, nose, mouth), or breaks in the skin. *Brucella* can also be transmitted by contaminated objects (**fomites**) such as, equipment, clothing, shoes, hay, feed or water.

Some animals are carriers; they will have the bacteria but show no signs of illness. These animals can shed the bacteria into the environment for long periods of time, infecting other animals in the herd.

#### How does brucellosis affect my animal?

Brucellosis causes reproductive problems (e.g. abortions, stillbirth, infertility) in most species of animals. Other signs can include arthritis in cows and pigs, mastitis and lameness in goats, and oozing skin lesions in horses ("fistulous withers").

#### Can I get brucellosis?

Yes. People can become infected by eating or drinking (**oral**) raw milk or unpasteurized milk products that contain the *Brucella* bacteria. **Direct contact** or **aerosol** exposure to infected animal fluids are additional ways to be infected. People who work with animals (e.g., livestock producers, veterinarians) may be at higher risk of exposure to *Brucella*.

Infection in people causes flu-like signs (fever, night sweats, headaches, back pain). Arthritis (joint pain) and re-occurring fevers may occur with long term infection. Rarely, cases of brucellosis can involve the nervous system, eyes, or heart.

#### Who should I contact, if I suspect brucellosis?

**In Animals** – Contact your veterinarian immediately.

**In Humans** – Contact your physician immediately.

#### How can I protect my animals from brucellosis?

*Brucella* can survive for months in the environment under optimum conditions but can be destroyed by heat and some disinfectants. Thoroughly clean and disinfect areas exposed to infected animals, their urine, blood, milk, or discharges. Keep sick animals away from other animals to avoid spreading the disease.

In the United States, a vaccination program is used to control brucellosis in cattle. Control programs exist for wildlife (bison and elk) in Yellowstone National Park.

#### How can I protect myself from brucellosis?

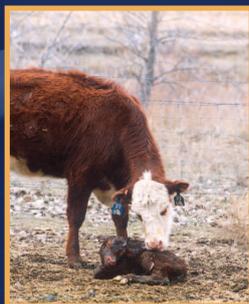
Do not eat or drink raw milk or unpasteurized dairy products. Wear protective clothing (gloves, masks) when handling reproductive tissues (assisting delivery of newborn animals). Always wash your hands after touching animals.

#### For More Information

CFSPH Technical Fact Sheets. Brucellosis at <http://www.cfsph.iastate.edu/DiseaseInfo/>

CDC website. Brucellosis at [http://www.cdc.gov/ncidod/dbmd/diseaseinfo/brucellosis\\_g.htm](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/brucellosis_g.htm)

USDA-APHIS-VS. Brucellosis at <http://www.aphis.usda.gov/vs/naahps/brucellosis/>



**Brucellosis**  
is a bacterial disease that  
can affect many animals  
and humans.

Photo from USDA ARS Photo Gallery