



Brucellosis and Humans

What is Brucellosis?

Brucellosis is a serious infectious disease, caused by bacteria of the genus *Brucella*, Brucellosis affects both humans and animals. The disease is more common in countries that do not have effective public and animal health programs. Brucellosis is common in Afghanistan.



Figure 1. Brucellosis can spread to humans directly from the animal or from consuming contaminated milk or meat (Source: Photo Who.int)

How do humans get brucellosis?

1. **Intake.** Humans are most likely to get brucellosis from eating or drinking contaminated unpasteurized milk products or uncooked meat.
2. **Working with animals.** Veterinarians and livestock workers may be exposed through direct contact with aborted fetuses, placenta, and uterine discharges from infected animals, tissues from infected carcasses, or contaminated environments (Figure 1). Exposure can occur through accidental ingestion, inhalation, and contamination of mucous membranes or skin abrasions and cuts.

Transmission from human to human is rare, but possible.

Human Symptoms

Symptoms of brucellosis can vary widely, but commonly include fever, excessive sweating, fatigue, headaches, back pains and physical weakness. Many individuals develop an intermittent or undulating fever. Gastrointestinal signs are more common in adults than children, including vomiting, anorexia, nausea, diarrhea or constipation. Brucellosis can also cause long-lasting symptoms including recurrent fever, joint pain and fatigue. Brucellosis can lead to abortions by pregnant women. If left untreated, brucellosis infection can lead to serious complications affecting the central nervous system, heart and other organs.

Prevention

Avoid consuming raw milk or meat products. When handling livestock suspected of being infected, wear gloves, protective clothing, eye protection (e.g., glasses) and an N95 respirator (Figure 2). Wash hands thoroughly with soap and water after handling livestock, livestock carcasses, and raw milk or meat. Clean and disinfect livestock birthing areas.



Figure 2. An N95 particulate respirator (Source: Uline.com)

Treatment

Brucellosis can be successfully treated with antibiotics. The earlier the diagnosis and treatment, the less likely there will be complications or long-lasting effects. If you have symptoms of brucellosis, see your doctor as soon as possible.

More Information

- National and international health organizations provide good information regarding brucellosis with regard to human or animal infection. See the following resources for more information:
World Health Organization (WHO) - www.who.int/csr/resources/publications/Brucellosis.pdf
<http://www.who.int/zoonoses/diseases/brucellosis/en/index.html>
- US Centers for Disease Control and Prevention (CDC) -- <http://www.cdc.gov/brucellosis/>
- USDA-APHIS -- www.aphis.usda.gov/animal_health/animal_diseases/brucellosis/
- OIE (World Animal Health Organization) -- www.oie.int/fileadmin/Home/eng/Media_Center/.../BCLS-EN.pdf

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