

Bovine Tuberculosis (TB)

What is bovine tuberculosis and what causes it?

Bovine tuberculosis is a disease caused by the bacterium *Mycobacterium bovis* (my-ko-back-TEER-EE-um bov-us). It can infect many species of animals; cattle and buffalo most commonly. Bovine tuberculosis can spread to humans. It is still common in developing countries, a source of economic loss, and a serious health threat to humans.

What animals get bovine TB?

Cattle and buffalo are the maintenance hosts for the bacteria. Infections have also been described in many other animals including sheep, goats, horses, pigs, deer, dogs, cats.

How can my animal get bovine TB?

Bacteria are shed by infected animals in respiratory secretions, feces, milk, and, less commonly, other bodily fluids. Cattle are infected by inhaling droplets (**aerosol**) that contain the bacteria. Infection also occurs by ingestion (**oral**) if an animal swallows the bacteria.

How does bovine TB affect my animal?

Bovine tuberculosis is usually a slowly progressive and debilitating disease, but can occasionally have a quick onset and progress rapidly. Early stages of the infection often show no signs. As the disease progresses, weight loss, lack of appetite, weakness, and a low-grade fever are common. If the disease involves the lungs, animals will have a cough that is worse in the morning, during cold weather or activity, and they may have difficulty breathing. If the diges-

tive tract is involved, animals may develop diarrhea that comes and goes or become constipated.

Can I get bovine TB?

Yes. Bovine tuberculosis can infect humans and the most common route of infection is from drinking (**oral**) raw (unpasteurized) milk or eating dairy products made from raw milk. Less commonly, the bacteria can enter the body by breathing in (**aerosol**) or through breaks in the skin (**direct contact**). Infected humans may show no signs, develop infection in the chest and lungs, or have infection in other parts of the body such as the kidney, spine, and brain. The symptoms of chest and lung infection can include fever, chest pain, and a cough. Infected individuals often cough up blood.

Who should I contact, if I suspect bovine TB?

In Animals –

Contact your veterinarian.

In Humans –

Contact your physician.

How can I protect my animals from bovine TB?

This is a federally regulated disease and veterinarians must report suspected cases. Animals in states where there has been TB diagnosed in the last year have to perform a skin test to see if they have been exposed. If found positive, they will be slaughtered and tracing and containment of animals that have had contact with them will occur. Some wild animal species (e.g. deer, elk) can serve as reservoirs for bovine tuberculosis, so limit their contact with cattle. There is not an effective vaccine and treatment is not advisable.

How can I protect myself from bovine TB?

Do not drink raw milk or eat dairy products that contain raw milk (e.g. imported cheeses). Pasteurization is effective at preventing the spread of bovine TB in milk. Similar to preventing spread in animals, early diagnosis and the slaughter of known infected animals will minimize the risk of human disease from exposure to these animals.

For More Information

CFSPH Technical Fact Sheets. Bovine Tuberculosis at <http://www.cfsph.iastate.edu/DiseaseInfo/default.htm>

CDC website. Division of Tuberculosis Elimination at <http://www.cdc.gov/nchstp/tb/default.htm>



Bovine Tuberculosis
bacteria may be found in
raw milk and some cheeses.
The disease can affect
animals and humans.

Photo from Danelle Bickett-Weddle, CFSPH