

What is brucellosis?

Brucellosis is a disease caused by a group of bacteria called *Brucella*. This disease may affect various organs of the body.

Who is at risk for brucellosis?

Everyone is susceptible to the bacteria and may contract the disease if exposed; however, certain occupations that may come in direct contact with infected animals are at an increased risk. People are typically infected in one of 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 ways to be infected include eating or drinking contaminated, non-pasteurized milk products, and working with infected animals or their tissues.

What are the symptoms of brucellosis?

Symptoms of brucellosis include irregular fevers of varying lengths, headache, weakness, swollen lymph nodes, excessive sweating, chills, weight loss and generalized aching.

How soon do symptoms appear?

The time period for symptoms to occur after infection ranges from less than a week to several months, but symptoms usually appear within three to four weeks of exposure.

How is brucellosis spread?

Direct person-to-person spread of brucellosis is extremely rare. Rare instances of person-to-person spread have been reported, including the spread from infected mothers who are breastfeeding, sexual transmission and contaminated tissue transplantation. Typically, brucellosis is spread by consuming non-pasteurized milk and other dairy products from infected cows and goats. People may also become infected when they work with or handle blood, urine, discharges and aborted fetuses from infected cattle, pigs or goats. In this case, infection occurs through cuts and scrapes in the skin or breathing the bacteria in the air.

When and for how long is a person able to spread the disease?

It is unlikely that this disease could spread from person-to-person.

How is a person diagnosed?

Brucellosis may be diagnosed in a laboratory by looking at samples of blood or bone marrow. If you think you have brucellosis, contact your healthcare provider.

What is the treatment?

Brucellosis can be treated with antibiotics, but treatment can be difficult. Doctors may prescribe a combination therapy to prevent reoccurring infection. All antibiotics should be taken exactly as prescribed by your physician to avoid relapses. Depending on the timing of treatment and severity of illness, recovery may take a few weeks to several months. Fewer than 2 percent of people who have the disease die.

Does past infection make a person immune?

It is unlikely that an individual will get brucellosis again but some people's symptoms never go away or will reoccur.

Should children or others be excluded from child care, school, work or other activities if they have brucellosis?

No. Infants, toddlers and school-age children should not be excluded unless the staff determines the child is unwilling or unable to participate in activities. They should also be excluded if the staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.

All others can attend work and other functions as long as they are well enough to do so.

What can be done to prevent the spread of brucellosis disease?

Although human brucellosis is rare in the United States, the control of the human disease depends on the removal of the disease in cattle, goats, swine and other animals. Pasteurization of milk and milk products, including soft cheeses, which are for human consumption, is important to prevent disease. The certification of raw milk does not eliminate the risk of transmission of *Brucella* bacteria. People who handle animal tissues should protect themselves by using rubber gloves, goggles, gowns or aprons to prevent the bacteria from potentially infected animals getting into your eyes, or any broken skin.

Additional Information:

Additional information is available by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resources:

American Academy of Pediatrics. [Children in Out-Of-Home Child Care]. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2018 Report of the Committee on Infectious Diseases*. 31st ed. Itasca, IL: American Academy of Pediatrics; 2018:[122-136].

American Academy of Pediatrics. [Brucellosis]. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2018 Report of the Committee on Infectious Diseases*. 31st ed. Itasca, IL: American Academy of Pediatrics; 2018:[255-257].

Heymann, D. L. (2015). *Control of Communicable Diseases Manual, 20th Edition*. E. coli Diarrheal Diseases. American Public Health Association. 2015: [78-81].