How is it spread to humans?

People who are exposed to large numbers of bacteria are at highest risk for becoming sick. The most common way humans become infected is through direct contact with birthing fluids, canine abortion products, or vaginal discharge from an infected dog. *B. canis* can be transmitted if these infectious materials contact a person's mouth or eyes, scratched skin, or any open wounds. Those at highest risk are those assisting with birthing or whelping and have direct contact with the bodily fluids from an infected dog.



Should I be worried?

Human infection with *B. canis* is uncommon and considered low risk, but the disease is likely underdiagnosed because symptoms are vague, and testing is difficult. Practicing proper hygiene, washing hands, and wearing personal protective equipment around infected dogs minimizes risk for transmission.

Need more information?

Call Montana Department of Livestock at (406)444-2976 or visit our *Brucella canis* webpage at https://liv.mt.gov/Animal-Health/Reportable-Animal Diseases/ Brucella-canis

If you have concerns that your dog may have originated from a high-risk area or has symptoms consistent with *B. canis* infection, please call your primary care veterinarian to discuss testing.

If you suspect that you have been exposed to canine brucellosis, contact your primary care provider immediately. You can also contact The Department of Public Health and Human Services at (406)444-0273 for more information or with questions on human health.







Montana Department of Livestock

Brucella canis

What is Brucella canis (B. canis)?

Canine brucellosis is a contagious infection in dogs which is caused by the bacteria *Brucella canis*. Domestic dogs are only significant host of this disease.

Why is this disease concerning?

Canine brucellosis causes reproductive problems, leads to painful symptoms, and is a lifelong infection with no cure.

This disease <u>can be transmitted to</u> <u>humans</u>.

What are the signs of *B. canis* infection in dogs?

Reproductive problems: abortion/miscarriage, stillbirth, weak puppies that die soon after birth, and infertility

Other problems: inflammation of the testicles, severe intermittent back pain, swollen lymph nodes, shifting leg lameness, inflammation within the eyes, and other symptoms associated with not feeling well (no energy and loss of interest in eating)

How do you test for infection? Your veterinarian can perform a screening test using a small blood sample.

B. canis testing is a serial process – meaning that multiple tests are needed to get a diagnosis. If the first test reveals a positive result, your dog may need additional testing to confirm infection.

How is *B. canis* spread between dogs?

Large amounts of *B. canis* bacteria can be found in birthing fluids, especially after a miscarriage or whelping of still born puppies.

The disease is typically spread through breeding. However, it can also be transmitted through ingestion of, or oral contact with, infected bodily fluids including breeding/birthing fluids, semen, urine, saliva, blood, and feces. The disease can also spread from mom to puppy during pregnancy.



Which dogs are at highest risk?

Dogs from areas with large numbers of sexually intact and stray animals are at the highest risk.

Dogs in breeding programs are also high risk unless proper testing and prevention practices are in place.

What is the treatment? There is no cure for *B. canis*.

This bacterium generally hides in areas of the body in which antibiotics cannot fully penetrate. Antibiotics may reduce symptoms and decrease shedding of bacteria in bodily fluids, but the bacteria will never be eliminated.

Because this disease is incurable, causes painful symptoms in dogs, and can be transmitted to humans, the recommendation is to euthanize positive dogs.

How is B. canis prevented?

Increased testing of dogs from high-risk populations and appropriate management of positive cases will help reduce the risk for continued spread. Dogs with *B. canis* infection should be euthanized to prevent spread of disease (to other dogs and humans). Those that are positive but not euthanized are expected to be in lifelong isolation from other dogs and have limited interactions with people. Additionally, spaying/neutering will help decrease spread of the bacteria through breeding and may decrease shedding through urine.

Unfortunately, there is no vaccine to prevent *B. canis*.