

Agent	<i>Brucella spp</i> bacteria (important zoonotic strains are <i>B. abortus</i> , <i>B. melitensis</i> and <i>B. suis</i>)
Susceptible species	<ul style="list-style-type: none"> • <i>B. abortus</i>: primarily cattle, elk, bison. Spillover in horses, sheep, goats, pigs, raccoons, dogs, coyotes • <i>B. melitensis</i>: primarily sheep and goats. Occasionally cattle, camels, dogs; rarely horses and pigs. Spillover into wild ruminants. • <i>B. suis</i>: Primarily pigs, reindeer and caribou. Can also infect moose, cattle, Arctic fox and wolves. Spillover into cattle, small ruminants, horses, dogs and others.
Occurrence in BC and the world	<ul style="list-style-type: none"> • Canada has eradicated brucellosis in livestock. The last confirmed outbreak was in 1989. • Wildlife reservoirs in Canada: bison in Wood Buffalo National Park (<i>B. abortus</i>) and barren ground caribou in northern Canada (<i>B. suis</i>) <ul style="list-style-type: none"> • No wildlife reservoirs currently identified in BC • There have been 10 documented human cases of brucellosis in BC, reported between 1993 and 2010 <ul style="list-style-type: none"> • All human cases likely acquired during international travel
Transmission	<ul style="list-style-type: none"> • Most common through contact with the placenta, fetus, fetal fluids and vaginal discharges from infected animals • Venereal transmission for <i>B. suis</i> and rarely for <i>B. melitensis</i> and <i>B. abortus</i> • Indirect transmission by fomites, including feed and water • Persistent infection, shedding may be lifelong
Diagnosis	Incubation period varies with the species and stage of gestation at infection
Clinical	Females: Abortion, stillbirth and weak offspring.. Males: Epididymitis, orchitis and sterility. Boars: reproductive signs plus lameness, incoordination, posterior paralysis
Laboratory	<i>Differential diagnoses: other causes of abortion; spinal cord diseases (pigs)</i> Serology, culture, smears
Prevention and control	<ul style="list-style-type: none"> • Infected countries may have eradication programs including quarantines, vaccination, test-and-slaughter and/or depopulation • Canada maintains freedom through import controls and slaughter surveillance program, as well as enhanced surveillance for cattle in proximity to infected wildlife.
Zoonotic implications	<ul style="list-style-type: none"> • Transmission may occur through: <ul style="list-style-type: none"> • Contact through breaks in the skin with infected tissues, blood, urine, vaginal discharges, fetuses, placentas • Ingestion of raw milk and dairy products from infected animals • Airborne infection in laboratories and abattoirs • Persons exposed to a potentially infected animal should seek immediate medical attention
Reporting	<ul style="list-style-type: none"> • Brucellosis caused by <i>B. abortus</i>, <i>melitensis</i>, <i>ovis</i> or <i>suis</i> is a reportable disease to the Chief Veterinary Officer (CVO) in BC <ul style="list-style-type: none"> • All <u>suspect or confirmed</u> cases should be reported within 24 hours (604-556-3013) • Veterinarians may be contacted by public health authorities for follow-up • Brucellosis in livestock is a reportable disease to the CFIA <ul style="list-style-type: none"> ○ Veterinarians must <i>immediately</i> report <u>suspect and confirmed</u> cases of brucellosis to a CFIA district veterinarian