



Johne's Disease

Prevention	<ul style="list-style-type: none"> • Implement a biosecurity plan that identifies sources of disease risk and strategies to avoid disease introduction • <u>Inquire about the Johne's status of a herd when purchasing new animals; important consideration must be given to bulls because they are with cows at a time that calves are highly susceptible</u> • Raise newborn animals in a clean environment • Avoid manure contamination of feed and water sources • Identify and remove affected animals • Maximize herd disease resistance through good nutrition and parasite control • Pasteurize pooled milk fed to calves
Cause	<ul style="list-style-type: none"> • <i>Mycobacterium avium</i> subspecies <i>paratuberculosis</i> (MAP) • Infects all species of ruminants • Shed in manure, colostrum or milk of infected animals and can also transmit <i>in utero</i> • Can survive up to a year in cool, wet environments • <u>No treatment/ no commercial vaccination</u>
Clinical signs	<ul style="list-style-type: none"> • Weight loss, chronic diarrhea, and death <ul style="list-style-type: none"> ○ Due to thickening of the intestine wall and reduced absorption of nutrients • Age of onset of clinical signs depends on age and dose at time of exposure, genetics, and stress; incubation period ranges from 6 months - 4 years • Clinical signs do not directly correlate with shedding risk. Animals likely shed bacteria in feces before showing clinical signs
Transmission	<ul style="list-style-type: none"> • PRIMARY: Ingestion of manure through contaminated feed or water (fecal-oral) <ul style="list-style-type: none"> ○ Also, colostrum or milk from infected cows and <i>in utero</i> transmission by infected cows • Animals <6 mos. of age have highest susceptibility to infection
Diagnosis	<ul style="list-style-type: none"> • Tests detect either the presence of MAP or the animal's response to the bacteria (antibodies) <ul style="list-style-type: none"> ○ Herd screening tests and diagnostic individual animal tests are available • Blood, feces, and/or tissues can be tested • Testing programs should address both clinically ill animals as well as subclinically infected animals (asymptomatic carriers of bacteria)