

Mastitis

Mastitis is an inflammation of the mammary gland. In the cow, the inflammation is almost always the result of infection by *pathogenic* (disease-causing) bacteria although other microorganisms such as yeast and mycoplasmas may occasionally be involved. Common pathogens fall into 2 categories:

- Contagious bacteria, including *Streptococcus (Strep) agalactiae* and *Staphylococcus (Staph) aureus*. The main sources of these organisms are infected udders and they are commonly spread from cow to cow at milking time by milking machines, wash cloths and milkers' hands. They usually establish mild, subclinical infections of long duration but new infections can be minimized through proper milking procedures.
- Environmental bacteria include several types of streptococci (*Strep uberis* and enterococci) and coliforms (*Escherichia (E.) coli*, *Klebsiella* species, *Enterobacter* species and others). These exist in the cows' environment: in feces and in soil and plant material. Passage of infection between cows is less common than transfer directly from contaminated surroundings. Control is more difficult than for contagious mastitis, but maintenance of clean facilities is a critical factor in reducing the rate of new infections.

Strep dysgalactiae is a common cause of mastitis which may behave both as a contagious and as an environmental type of pathogen. Other bacteria such as *Pseudomonas aeruginosa*, *Corynebacterium pyogenes* and some species of *Nocardia* are less common but can cause severe individual cases or herd outbreaks.

Several factors must be considered in deciding whether to treat an infected cow with antibiotics:

- her current and probable future economic value in the herd;
- her present value as a cull;
- the availability of replacement animals;
- the costs and likely long-term success of antibiotic treatment;
- the value of discarded milk;
- the risk of contaminating milk and meat.

for more information:

Current Concepts of Bovine Mastitis, *The National (US) Mastitis Council*
[Premilking Udder Preparation](#), *Alberta Dairy Management*
[Clinical Mastitis - to Treat Or Not to Treat](#), *Advances in Dairy Technology*