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Clostridium perfringens

Exhibiting frighteningly violent and rapidly progressing symptoms, *Clostridium perfringens*-induced intestinal diseases have confounded livestock producers and veterinarians around the world, along with medical doctors who at times have been stunned to diagnose in humans what is more commonly considered an animal disease.

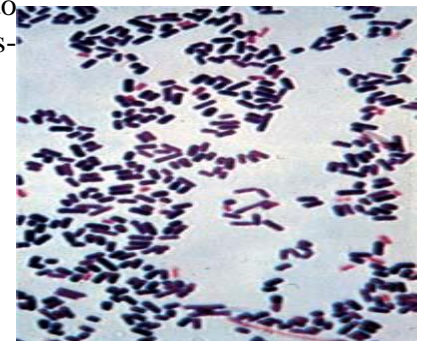
"The organism is so promiscuous in terms of its hosts that it's found wherever there are domestic animals," says Glenn Songer, a veterinary scientist in the College of Agriculture at The University of Arizona. "It makes a lot of toxins, and it's almost always lethal."

Once an animal contracts a disease caused by *Clostridium perfringens* it's often too late to do anything about it, according to Glenn Songer, UA veterinary scientist. Death comes quickly and violently. This type of bacteria, occurring in five different strains identified by toxin type, produces a host of toxic proteins; nearly twenty have been described scientifically and there may be more. These toxins can act rapidly in the body, causing severe diarrhea, dysentery, gangrene, muscle infections and various other forms of enteric (gut) disease. The symptoms vary in intensity and variety depending on the individual toxin and its host.

C. perfringens can cause disease in most domestic animals and some wildlife, including horses, poultry, sheep, birds, rabbits, goats, hogs, cattle, mink, ostrich, emu, dogs, cats, and others. Humans have also become infected, although cases of enteritis have been localized, most notably in the highlands of Papua New Guinea where it occurs as a severe, usually fatal form of food poisoning that kills the small intestine.

In spite of its potential danger as an infectious agent, the avirulent forms of bacillus are commonly found in the intestinal tracts of warm-blooded animals, and it also inhabits terrestrial, marine and aquatic environments. The trouble starts when the balance of bacteria in the gut is disrupted, giving *C. perfringens* a chance to proliferate unchecked. It may contaminate soil, animal feed and litter, or be transmitted directly from infected to healthy animals.

C. perfringens related livestock infections have been reported in every state in the nation and in most parts of the world. Although surgery can save human victims, it is often not feasible to perform it on domestic animals. The most practical way to handle perfringens-related illnesses in animals is to prevent them in the first place.



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1998 Arizona Experiment Station Research Report
<http://ag.arizona.edu/pubs/general/resrpt1998/clostridium.html>

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