



# EquiPage



***NUTRITION AND OTHER TOPICS OF INTEREST TO THE HORSE INDUSTRY.***

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## *Lawsonia intracellularis*: A Review

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*Lawsonia intracellularis* has emerged as a significant pathogen in the equine in the past decade. Cases are often isolated and the pattern of infection is random, usually affecting only a single horse or a few horses on a farm, although a few herd outbreaks have been described. While survivability is generally good, quick diagnosis and proper treatment are essential in recovery.

The causative organism is a bacterium that affects the cells lining the small intestine and sometimes the large intestine. This leads to loss of protein and compromises nutrient absorption, particularly protein absorption. The method of infection and transmission of the disease in the horse is still largely unknown, although the fecal-oral route is probable. Some believe deer, rabbits, rodents or birds are possible sources of infection, while others believe that the organism is not transmitted between species. Regardless, both theories support fecal contamination of the environment, whether by horse or another species, as the likely source of the *L. intracellularis* for infection in clinical cases.

The most common scenario is a foal or weanling that presents in the late fall to early winter. Typical clinical signs include weight loss; diarrhea; lethargy; fever; colic; and edema in the throatlatch, pectoral area, and/or scrotal area. Ultrasound of the horse's abdomen may reveal edema, or thickening, of the intestinal walls. Diagnosis can be done by PCR on a fecal sample or serology on a blood sample. Presumptive diagnosis and initiation of treatment often occurs if a foal or weanling has typical clinical signs and a very low serum protein or albumin level.

Treatment consists of antimicrobials against the bacteria such as oxytetracycline, doxycycline, chloramphenicol, metronidazole, or clarithromycin, as well as supportive care including intravenous fluids and supplemental nutrition. In addition, equine plasma and hetastarch may be given to help increase the horse's protein level. These horses often require treatment for several weeks and typically lose significant body condition due to the damaged gastrointestinal tract and secondary malabsorption.

Note: Equine proliferative enteropathy, caused by *L. intracellularis*, has been reported as sporadic isolated cases in the United States, Canada, Australia, South Africa and parts of Europe.

## Feeding Horses Diagnosed with *Lawsonia intracellularis*

Amy Parker, M.S., McCauley Bros., Inc.

The small intestine is the major site of nutrient absorption in the horse. Because *Lawsonia intracellularis* damages this portion of the digestive tract, special nutrient support is necessary. A diet with easily digestible sources of nutrients, specifically high in protein, will help to compensate for the compromised nutrient absorption and protein loss. Such a diet also will be helpful in re-gaining body condition. A high quality alfalfa or mostly alfalfa hay harvested at an immature stage with soft stems and lots of leaves should be the basis of the diet. As for feed, McCauley's Foal and Weanling™ is designed with high concentrations of easily absorbable nutrients and will provide elevated dietary protein and calories. Feeding approximately 1 pound of Foal and Weanling per 100 pounds of body weight per day is recommended until the horse's weight is fully recovered. Once the horse has fully recovered its body condition and blood parameters have returned to normal, the feed and forage may be slowly returned to the customary routine.

Prompt veterinary diagnosis and treatment along with specialized nutritional support can help facilitate the recovery of a horse diagnosed with *L. intracellularis*. If you suspect your horse has *L. intracellularis*, immediately contact your veterinarian. Should your horse be diagnosed, follow your veterinarian's medical advice for treatment, and contact Dr. John Lew or Amy Parker at McCauley Bros. for further nutritional advice.

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  - young, growing horses recovering from intestinal damage, such as those diagnosed with *Lawsonia intracellularis*



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