

## Campylobacteriosis – frustrating and costly to deal with!

*Campylobacteriosis* is an infectious diarrheal disease that's found in both animals and people. *Campylobacter* can be found in 20 to 30% of dogs or cats with diarrhea, and 10% of the normal dogs or cats in an infected cattery, kennel or humane/rescue kennel. It's also referred to as "Show Crud" since it's very common in show dogs.



### Transmission to Neonates:

The bacteria are shed in the feces of infected and asymptomatic carrier animals and are the biggest issue in kennel or cattery. The most common way *Campylobacter* is transmitted is by ingesting feces contaminated food and water. Many chicken flocks and birds are natural reservoirs, infected but showing no signs of illness. *Campylobacter* is easily spread through an infected water source or raw meats especially chicken. Puppies or kittens under six months of age are the most susceptible. Dogs and cats over 6 months are quite resistant and may become asymptomatic carriers, keeping the organism in the cattery or kennel.

### Clinical Picture:

Neonates often break with the disease in the weaning period or shortly after arriving at a rescue or kennel. Recently *Campylobacter* has started affecting puppies 4 weeks of age. They eat nurse and drink but are lethargic and have mucoid progressing to diarrhea with blood tinge. Clinical signs vary from mild to severe depending on the stress level of the neonate. We may see loose feces, watery diarrhea or bloody mucoid diarrhea. This makes the owner worry about Parvo, but quickly realize it is not the same. Unlike many viral infections, puppies and kittens generally do not have a fever, vomit or lose their appetite. This helps you distinguish *Campylobacter* from Parvovirus or Panleukopenia.

In humans, *Campylobacter* is one of the most common causes of diarrheal illness in the United States. The best prevention is hand washing with soap and water. Some studies have even shown soap to be superior to antibacterial products, which means mechanical washing is important!

### Treatment:

There are many different treatments available that have shown varying amounts of success. You should talk to your veterinarian to find the best option for your dogs. You need to keep them on the medication for a minimum of 21 days to clear *Campylobacter* - we don't want to create carriers by stopping treatment too early. In addition to treatment, [electrolytes](#) are especially important with any diarrhea to prevent dehydration and this is one disease probiotics have helped speed recovery!

- Antibiotics such as [azithromycin \(Zithromax®\)](#) or erythromycin are the best choice for eliminating the symptoms if it's

given early in the illness. Azithromycin (Zithromax®) 5 mg/lb daily for 3 days then every 3 days for three treatments.

- Erythromycin is recently available in the powder form and should be given 10mg/lb, twice a day.
- [Cephalexin](#) at 15 mg/lb twice daily has also been used successfully.
- [Tylan](#)® at 10mg/lb given twice a day can be given orally or mixed in the water, using it as the only water source. You need to keep them on the medication for a minimum of 21 days to clear *Campylobacter* - we don't want to create carriers by stopping treatment too early.
- [Baytril](#)® has been effective, but fluoroquinolones are contraindicated due to the cartilage damage that may occur with long term use in neonates. Avoid using Baytril in puppies and never use it longer than one week in neonates.
- Chloramphenicol has been used effectively in humans, but has not been reliable in dogs.
- Lab studies show sensitivity to gentamicin, neomycin, clindamycin, and tetracycline, however, resistance to tetracycline is high and should not be used.
- Ineffective antimicrobials are penicillins, ampicillin, polymyxin B, trimethoprim, and vancomycin and should not be used.
- Probiotics have been helpful in preventing and in treatment of puppies. Kennels have used probiotics in mom 30 days before whelping and after whelping. It has shown benefits in eliminating the carrier moms from transferring *Campy* to puppies.

### Whole kennel treatment:

We need to remember there are carriers in the kennel or cattery that are seeding the bacteria to the neonate. In treating the whole kennel, we can target the asymptomatic carriers and eliminate the bacteria out of the kennel.

- Tylan or lincomycin can be used in the nursery or whelping area. Both can be used in a self medicator for automatic watering systems or added to water bowls.
- Tetracycline in the water of non-pregnant adults has been tried, but monitoring is necessary as resistance is quickly seen. Never use tetracycline in neonates or pregnant moms as it will stain the non-erupted teeth brown.

By understanding the disease and eliminating it from the adult carriers we can control new cases in future puppies or kittens - the goal is no treatment in the next litter!

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