



# THE WINN FELINE FOUNDATION

## For the Health and Well-Being of Cats

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## 30th Annual Feline Symposium

### *Tritrichomonas foetus* infection:

#### What you need to know

**Speaker: Jody Gookin, DVM, PhD, DACVIM**

*North Carolina State University*

#### Synopsis

*Tritrichomonas foetus* is a single-celled, motile parasite that can colonize and reside inside the colon of cats. The infection causes inflammation of the colon and chronic, foul-smelling, pudding-like diarrhea. *T. foetus* infection is very common in U.S. catteries: 31% of 117 cats from 89 catteries sampled at an international cat show were positive for the infection.

Cats with diarrhea caused by *T. foetus* infection are usually young and purebred. The cats maintain good health and body condition but suffer from chronic, waxing and waning, semi-formed to cow-pie diarrhea. The diarrhea often improves during antimicrobial treatment, but quickly resumes when drugs are discontinued. *T. foetus* is frequently mistaken for *Giardia*. If your cat is diagnosed with *Giardia* and just doesn't seem to get better, consider the possibility that your cat may really have *T. foetus*.

There are 3 ways to diagnose *T. foetus* infection 1) by visualizing the organisms swimming in a liquid drop of feces under a microscope, 2) by culturing the organisms from the feces in special growth media, and 3) by detecting the DNA of the organisms in feces using a molecular test called a PCR assay. *T. foetus* will not survive refrigeration and is not observed using routine fecal flotation or sedimentation techniques. Fecal samples must be diarrheic and obtained while the cat is not receiving any antibiotics. Samples must be *freshly* voided, obtained directly from the rectum using a fecal loop, or obtained by flushing approximately 10 cc of saline into the proximal colon with a red-rubber catheter followed by gentle aspiration.

- A video depicting how to differentiate between *T. foetus* and *Giardia* infection can be viewed on the author's website ([http://www.cvm.ncsu.edu/docs/jody\\_gookin.html](http://www.cvm.ncsu.edu/docs/jody_gookin.html)).
- Fecal culture for *T. foetus* can be performed using the In Pouch™ TF culture system from Biomed Diagnostics ([www.Biomeddiagnostics.com](http://www.Biomeddiagnostics.com)). Although feces may be shipped out for cultivation, given the fragile nature of the organisms it is strongly recommended that this user-friendly culture technique be performed in-house for best results.

- A sensitive and specific PCR for detection of *T. foetus* is commercially available through the author's laboratory. Submission forms and instructions can be found on our website ([http://www.cvm.ncsu.edu/docs/jody\\_gookin.html](http://www.cvm.ncsu.edu/docs/jody_gookin.html)) or call Maria Stone at 919-513-6365.

If left untreated, 88% of cats with *T. foetus* infection will have spontaneous resolution of diarrhea within 2-years. However, stressful events may be associated with a relapse in diarrhea (e.g. surgery, oral antimicrobial therapy, travel, or a change in diet). The wait-for-resolution approach to treatment of *T. foetus* infection is best suited for a stable, low-number-cat household where further spread of infection is contained and owners are willing to tolerate the long course of diarrhea. Importantly, despite resolution of diarrhea most cats remain infected with the organism for an indefinite period of time.

The only treatment yet identified to be effective in treating *T. foetus* infection is ronidazole (RDZ). We currently recommend treating infected cats with 30 mg/kg once a day, PO for 14-days. Several pharmacies will compound chemical grade RDZ for veterinary use. Due to its foul taste, compounding into gelatin capsules (rather than flavored liquids or mixing into food) is recommended. RDZ is not registered for human or veterinary use in the U.S. and is banned for use in food-producing animals due to human hazards. Veterinarians are advised to obtain informed consent prior to use of this drug in cats. Neurological toxicity may be a serious side effect of RDZ and treatment should only be considered in cases of confirmed *T. foetus* infection and with close monitoring. Cats should be isolated during treatment to decrease the risk of re-infection. It is suspected that asymptomatic infections are common in multiple-cat colonies and isolation of only those cats with clinical signs may not be sufficient to avoid re-infection. A prolonged follow-up period is necessary to determine if infection has been eradicated. Testing by PCR at 1-2 weeks and 20+ weeks after completion of treatment is recommended.

To find out everything there is to know about feline *T. foetus* infection check out "An owners guide to diagnosis and treatment of *T. foetus* infection" ([http://www.cvm.ncsu.edu/docs/jody\\_gookin.html](http://www.cvm.ncsu.edu/docs/jody_gookin.html)).