



# ZOONOTIC DISEASE AND INTESTINAL PARASITES

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## WHY DO A FECAL EXAMINATION?

### *Background:*

Roundworms, hookworms, whipworms, and tapeworms are commonly encountered intestinal parasites in dogs and cats. In addition to causing harm to the animal, these parasites also pose a zoonotic threat to people. Humans can become infected through direct or indirect contact with infective stages of zoonotic parasites shed to the environment (parks, playgrounds, yards, sandboxes) from dog and cat feces. Children are more prone to infection as they are more likely to play in and touch infected dirt or sand and then put their hands into their mouths. Ingestion of roundworms (*Toxocara canis* and *felis*) can cause visceral, ocular and neural larva migrans. Ocular larva migrans can lead to blindness. Hookworms (*Ancylostoma caninum* and *tubaeforme*) typically infect the skin (cutaneous larva migrans), but can cause visceral disease as well. Echinococcus tapeworm infections are starting to become more

common in areas of Canada and the United States where they had not been recognized previously. Transmission to humans can result from ingestion of eggs released in an infected dog's feces, potentially resulting in a severe, usually liver, infection.



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## PREVENTION:

Regular veterinary care is important for the health of every animal. Because dogs and cats of any age can become infected with parasites, an annual exam including a fecal exam is recommended. Treatment for intestinal parasites depends on the type of parasite and therefore, fecal examination is an essential tool



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for accurate parasite identification. This will allow the establishment of the best treatment protocol. Follow up fecal exams are also recommended post treatment to ensure eradication of the parasite. In some cases, parasite resistance has been reported, so alternative drug treatment may be required. Broad spectrum treatment for intestinal parasites without regard for specific classification can lead to this drug resistance. In addition, lack of routine fecal examination would prevent identification of resistant parasites. A fecal exam is the only way to determine if your pet's treatment has been effective, especially since parasites are not always visible to the naked eye.

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## HERE ARE SOME WAYS TO HELP PREVENT ZOONOTIC DISEASE FROM INTESTINAL PARASITES:

- Promptly clean up pet waste. Many parasites or bacteria are not infectious in fresh pet waste, but become infectious over time and can contaminate the soil, sand or grass if allowed to sit.
- Practice good hygiene. Wash your hands thoroughly with hot, soapy water after playing with your dog or handling their waste. Wear gloves when gardening or working in areas where dogs, cats, or other animals may have urinated or defecated. Children should wash

hands thoroughly after playing in areas where pet waste may have been deposited. Keep sandboxes covered when not in use.

- With the advice of your veterinarian, establish a preventative drug program for deworming on a regular basis along with routine fecal



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exam. Flea control is also advised to prevent tapeworm infections. Should your dog or cat develop diarrhea or parasites are noted in their feces, prompt fecal examination is advised.



*Prior to achieving her DVM at Tufts University School of Veterinary Medicine, Dr. Terry Taylor obtained a Master in Public Health from Boston University and was a microbiologist and epidemiologist at several hospitals in the Boston medical complex. She was a staff veterinarian at a small animal practice before completing residency training in anatomic pathology at Angell Memorial Animal Hospital. She served as staff pathologist at Angell Memorial Animal Hospital, assistant professor of pathology at Tufts University School of Veterinary Medicine, contract pathologist at Primedica Corporation in Worcester, MA, and senior anatomic pathologist at Tufts University Cummings School of Veterinary Medicine. She was a consultant diagnostic pathologist at Marshfield Laboratories, Marshfield WI, IDEXX Laboratories, Florida Vet Path, the University of Minnesota School of Veterinary Medicine and Heska Corporation. She served on the Admissions Committee at Tufts University Cummings School of Veterinary Medicine for 23 years, where she is an Adjunct Assistant Professor. Dr. Taylor is a diplomate of the American College of Veterinary Pathologists in anatomic pathology.*

