

# Roundworm Disease



# GUIDE

## Overview

- Pets are at risk for roundworm disease in all 50 states. Areas with high concentrations of dogs such as dog parks may increase the risk of pets contracting this disease.
- Roundworms are common parasites in cats and dogs, even among well cared for pets.
- Roundworm eggs are **very hardy and long-lived in the environment**. Preventing egg shedding through early and **year-round administration of broad-spectrum parasite control** is critical to prevent environmental contamination.
- Roundworms infect dogs and cats through ingestion of larvated eggs or an infected paratenic host such as rodents or birds. They can also be transmitted directly from the mother to puppies and kittens through the placenta or nursing.
- Roundworms can enter a dormant phase and encyst in muscles and internal organs, activated into adult phase with pregnancy or stress.
- Disease in dogs caused by roundworms **is most severe in puppies**. Signs of infection may include failure to thrive, inability to gain weight, poor haircoat and pot belly. Severe infections in puppies can result in death.
- **In kittens**, roundworms can cause failure to thrive and a pot-bellied appearance. Infected cats may expel adult roundworm through vomiting.

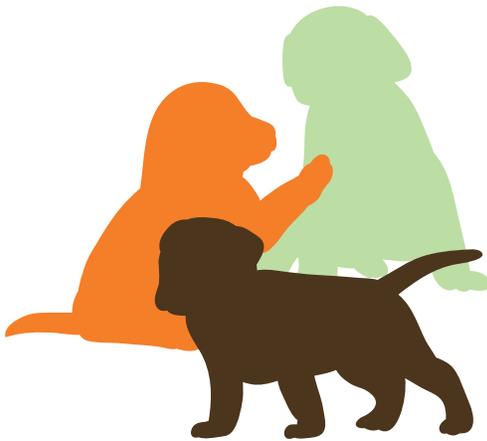


*Roundworms are common parasites in cats and dogs, even among well cared for pets.*



## Protect Your Pets, Protect Your Family

- As a parasite with **potential to infect humans**, when you protect your pet against roundworms, you help reduce exposure risk to your whole family.
- Infection in people from dog and cat roundworms is **most common in children** and occurs from ingestion of larvated eggs in the environment. When ingested by humans, larvae from roundworm eggs then migrate to organs such as the liver or lungs, to the eye or even the brain, and cause disease.



Surveys show

**30%**

of dogs younger than 6 months of age are shedding *Toxocara canis* eggs

## Close to Home

- A 2018 study of GI parasite transmission in dog parks in the southeast US revealed **27% of samples collected contained GI parasites** (whipworms, hookworms, and roundworms)<sup>1</sup>. **That is why broad-spectrum year-round protection against intestinal parasites is vital.**
- Dog parks are quickly becoming a standard feature in many communities. A recent study by the Trust for Public Land reported **744 off-leash dog parks** in the top 100 cities in the US in 2018. This is a 40% increase since 2009.<sup>2</sup>
- Surveys using samples collected from across the United States show that more than **30% of dogs younger than 6 months of age are shedding *T. canis* eggs**. Due to the high prevalence of roundworms, it can be assumed that virtually every puppy or kitten is infected.
- In 2019, CAPC maps reported **positive cases of roundworm infection in all 50 states** for dogs and cats tested.
- Any outdoor areas that dogs and cats have access to can potentially become reservoirs for roundworm eggs. Sandboxes, playgrounds and parks are examples of common areas of contamination. Pets can become infected through ingestion of roundworm eggs in a contaminated environment or through eating infected prey, especially rodents.

The most common roundworm in dogs may produce

**200,000** microscopic eggs per day!<sup>4</sup>

# Roundworm

## Why monthly prevention and regular testing matters

- Roundworm infections exhibit seasonality and are most prevalent during the winter months (November-January).<sup>3</sup> Other intestinal parasites such as hookworms are more active in the summer, therefore **broad-spectrum, year-round protection** should be practiced.
- Roundworms produce an incredible number of eggs on a daily basis. Therefore, the risk of environmental contamination and infection is high. The most common roundworm in dogs may produce **200,000 microscopic eggs** per day!<sup>4</sup>

## Environmental Control

- Avoiding environmental contamination is extremely important to prevent exposure. Once present, infective **roundworm eggs can survive in the environment for years** and can only be removed through extreme measures such as paving, burning, treating with steam or removing topsoil in contaminated areas. Cleaning up waste after your pet is an important part of preventing the spread of roundworms.
- Adhere to leash laws to prevent dogs from areas where dog waste is not cleaned up.



**Every pet tested and protected**



# Roundworm Lifecycle *Toxocara spp. (T. canis and T. cati)*



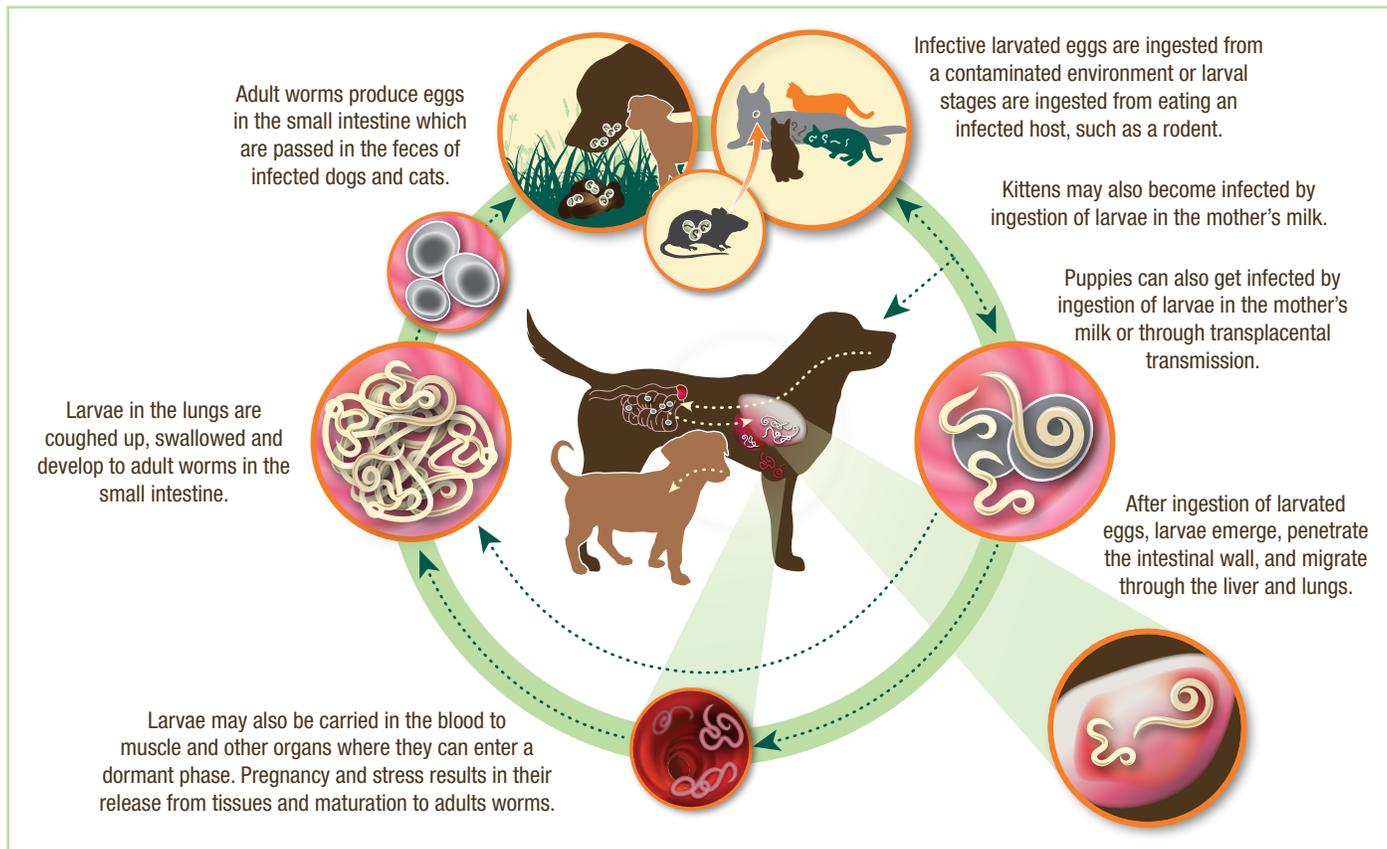
AFFECTS HUMANS



DOGS

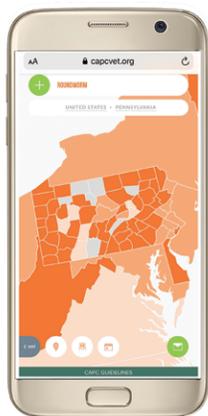


CATS



*Larvae from ingestion of vertebrate tissues do not migrate in the cat or dog, but instead travel to the small intestine to become adult worms. In dogs, transplacental transmission of Toxascaris leonina has not been shown to occur. In cats, transplacental transmission has not been shown to occur with either T. cati or Toxascaris leonina.*

## All pets tested and protected



- CAPC recommends that puppies and kittens be tested at least four times in the first year of life for intestinal parasites, including roundworms, and at least two times per year in adults, even if they are on year-round preventives.
- Administer monthly broad-spectrum parasite control with efficacy against roundworms year-round. Your veterinarian can recommend an effective preventive that's right for your pet.
- To help pet parents and veterinarians identify the risk for roundworms and other parasite infections in your geographic area, CAPC the Parasite Prevalence maps ([capcvet.org](http://capcvet.org)) which provide roundworm disease prevalence for the U.S. at the county level.

## References

1. Savadelis, Molly & Evans, Chris & Mabry, Kristen & LeFavi, Leanne & Klink, Bruce & von Simson, Cristiano & Moorhead, Andrew. (2019). Canine gastrointestinal nematode transmission potential in municipal dog parks in the southeast United States. *Veterinary Parasitology: Regional Studies and Reports*. 18. 100324. 10.1016/j.vprsr.2019.100324.
2. [https://cloudtpl.s3.amazonaws.com/images/landingpages/ccpff/2018/City%20Park%20Facts\\_Dog%20Parks%202018.pdf](https://cloudtpl.s3.amazonaws.com/images/landingpages/ccpff/2018/City%20Park%20Facts_Dog%20Parks%202018.pdf)
3. Drake, J., Carey, T. Seasonality and changing prevalence of common canine gastrointestinal nematodes in the USA. *Parasites Vectors* 12, 430 (2019) doi:10.1186/s13071-019-3701-7
4. **Azam et al 2012 stated that "Toxocara canis females my produce 200,000 eggs per day, and these eggs are passed to the environment in the feces.** Azam D, Ukpai O, Said A, Abd-Allah G, Morgan ER. 2012. Temperature and the development and survival of infective *Toxocara canis* larvae. *Parasitol Res* Vol 110 pp 649-656.

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