

## Toxocariasis: Infection in Humans with Dog & Cat Roundworms

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### ❑ WHAT IS IT?

- ✓ Toxocariasis is infection of people and animals with intestinal roundworms from dogs (*Toxocara canis*) and cats (*Toxocara cati*).
- ✓ *Toxocara* roundworms can infect dogs and cats of all ages, but infection is particularly common in young puppies and kittens. Most animals show no signs of illness but some may have diarrhea.
- ✓ Infected animals shed large number of eggs in their stool.
- ✓ Roundworm eggs can survive in the environment for many years.
- ✓ About 14% of the U.S. population has been infected with *Toxocara* roundworms. Infection may be more common in areas with humid and warm climates.

### ❑ HOW IS IT SPREAD BETWEEN ANIMALS?

- ✓ It is spread between animals by ingestion of eggs that are shed in the stool of infected animals.
- ✓ Infected female dogs can pass roundworms to their puppies before birth or through the milk when nursing.
- ✓ Infected female cats can pass roundworms to their kittens through nursing, but not before birth.

### ❑ HOW IS IT SPREAD TO HUMANS?

- ✓ Humans can get infected when they ingest soil, sand or plants contaminated with roundworm eggs.
- ✓ Young children (under 5 years of age) are at higher risk of infection because they often play in areas that may have been contaminated by dog or cat stool and put their hands in their mouths.
- ✓ Infection is not spread from person to person.

### ❑ WHAT ARE THE SYMPTOMS IN HUMANS?

- ✓ When roundworm eggs are swallowed, they enter the gut and can hatch into larvae (immature worms) that move to other parts of the body.
- ✓ Symptoms of infection may occur weeks or months after ingestion of eggs.
- ✓ Symptoms depend on the number of larvae and the body parts they migrate to. Most people have no symptoms and serious disease is rare.
- ✓ Visceral larva migrans (VLM) can occur when the movement of larvae causes swelling of internal organs (for example, liver, spleen, heart and lungs) or the brain or spinal cord.

- ✓ VLM symptoms can include fever, weakness, coughing (sometimes resembling asthma), pneumonia, abdominal pain, nausea, and vomiting. Symptoms may persist for months.
- ✓ In rare instances larvae migrate into the eye causing serious eye disease (ocular larva migrans, OLM).

### ❑ HOW IS IT DIAGNOSED?

- ✓ Infection in people is diagnosed by the symptoms, physical examination, and by blood tests.
- ✓ Roundworm infection in dogs and cats is diagnosed by testing a stool sample.

### ❑ HOW IS IT TREATED?

- ✓ Human infection is treated with medications that kill the worms. Treatment of OLM may include surgery.
- ✓ Infection in dogs and cats is easily treated with worm medication.

### ❑ PREVENTION

- ✓ Establish regular veterinary care for new pets, including early and regular deworming, especially of puppies and kittens.
- ✓ Clean up after pets and immediately dispose of their stool.
- ✓ Wash hands thoroughly after playing with pets, after cleaning up their stool, after all outdoor activities, and before preparing food and eating.
- ✓ Scrub all fruits and vegetables before eating.
- ✓ Don't let children play in areas soiled by animals.
- ✓ Don't let children eat dirt.
- ✓ Cover children's sandboxes when not in use.

### ❑ FOR MORE INFORMATION SEE:

- ✓ [www.cdc.gov/ncidod/dpd/parasites/toxocara/default.htm](http://www.cdc.gov/ncidod/dpd/parasites/toxocara/default.htm)
- ✓ [www.avma.org/animal\\_health/brochures/default.asp](http://www.avma.org/animal_health/brochures/default.asp) and click on "What you should know about Internal Parasites In Cats & Dogs."

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