

## **Ascarid infection**

### *Roundworm infection*

#### **Affected Animals:**

Cats or dogs. Kittens are affected more commonly than adult cats. Outdoor cats are more likely to become infected with roundworms, especially if they hunt.

#### **Overview:**

The intestinal parasite that affects cats most often, feline roundworms are an especially common problem among kittens and outdoor cats that hunt. There are two species of the roundworm, or ascarid, which infect cats: *Toxocara cati* and *Toxocara leonina*. These worms can be passed on to kittens in the milk they nurse from their infected mother; cats also may get them by eating small animals that harbor the parasite. In addition, a cat may become infected by licking its paw after walking on soil contaminated with infective roundworm eggs.

Diarrhea and vomiting are common symptoms of roundworm infestation, and, when severe, can lead to dehydration. Generally, the infection has a more serious impact on kittens than on adult cats, which may show no outward symptoms of the disease. Nevertheless, all cats and kittens, even those who are asymptomatic, should be dewormed because roundworms can cause illness in humans.

Young children who play in uncovered sandboxes or dirt where outdoor cats have been known to defecate are especially at risk for contracting the parasite. Although uncommon, roundworm infection can lead to serious diseases in humans, including blindness and disorders of the central nervous system.

#### **Clinical Signs:**

Usually, signs are noted only in kittens with moderate to heavy worm burdens. Abdominal discomfort, vomiting, diarrhea, potbellied appearance, dull haircoat, unthriftiness, and stunted growth can occur. Adult roundworms sometimes can be seen in vomit or diarrhea. Cats with mild infections usually will be asymptomatic or have a loss of body condition.

#### **Symptoms:**

Usually, signs are noted only in kittens that are moderately to heavily infested

with roundworms. Abdominal discomfort, vomiting, diarrhea, potbellied or bloated appearance, dull or unkempt fur, general appearance of poor health, or stunted growth can occur. The white, tubular adult roundworm sometimes can be seen in the vomit or diarrhea. These adults have been said to look like half pieces of spaghetti noodles. Cats with mild infections usually will have no signs or mild loss of body condition.

**Description:**

The most common intestinal parasite found in cats, roundworms most often infect kittens and outdoor animals. Adult cats can become infected by eating small animals that harbor the parasite or by licking their paws after walking on soil contaminated with the infective roundworm larvae. While adult cats usually have no notable signs of infection or very mild symptoms, kittens -- who usually get the worms while nursing from an infected mother cat -- are likely to develop gastrointestinal problems, such as vomiting and diarrhea. Additional serious complications may occur when the roundworms, or ascarids, migrate within the wall of the gastrointestinal tract or through other organs, such as the liver, lungs, and eyes. Roundworms are treatable with medication.

There are two species of the ascarid that infect cats, *Toxocara cati* and *Toxocara leonina*. The *Toxocara cati* roundworm also can affect humans, particularly young children who come into contact with the parasite when playing in a sandbox contaminated with feces from an infected cat; outdoor cats often use a sandbox or other area of loose soil as a litter box. While direct contact with an infected cat is not likely to lead to human exposure to the disease, litter boxes should be cleaned out daily so that any roundworm eggs shed into the feces will not pose a danger.

Humans who become infected with roundworms can suffer severe symptoms, including skin rash, fever, abnormalities of the central nervous system, coughing, enlargement of the liver or spleen, and vision problems such as blindness. Although human infections are rare, all kittens should be dewormed to prevent transmission of the parasite. Outdoor cats should have a periodic test for worms and be treated as needed.

**Diagnosis:**

The veterinarian will diagnose a roundworm infection by evaluating the symptoms, physical exam, and assessing the results of a routine fecal floatation test. This test involves looking for floating roundworm eggs using a microscope. Roundworm adults usually produce large numbers of eggs, making detection of them fairly easy.

**Prognosis:**

The prognosis is good if cats and kittens are treated before infected with a large number of worms. Some kittens can have stunted growth if the worm infection overwhelms the ability to ingest enough nutrients. Although uncommon, some

roundworm infestations can be numerous enough to cause intestinal blockage and possible death.

**Transmission or Cause:**

Roundworm infection can occur when a mother cat infected with the parasite nurses her kittens. The stress of pregnancy results in the mother cat becoming re-infested by roundworms. As the mother's immune system weakens, the larvae -- infective stage of a worm -- that were being held dormant in her muscle tissues can become active again or new larvae can be ingested. These are then passed through the milk to the nursing kittens.

In addition, adult cats that ingest infective eggs -- usually by cleaning their paws after stepping on the eggs -- will get roundworms. Outdoor cats that hunt may develop a roundworm infection if they eat prey that hosts the parasite. If infective roundworm eggs are picked up from the soil onto the paws, a cat can become infected by ingesting them while grooming.

**Treatment:**

Several dewormers are effective against roundworms. The examining veterinarian usually gives kittens pyrantel pamoate or some other medication safe for use in young animals. Use caution if purchasing over-the-counter dewormers since many do not eliminate all of the types of ascarids that commonly infect cats. Cats and kittens can be sensitive to medications and only should be given ones known to be safe. The examining veterinarian will know which products are safe and most effective.

**Prevention:**

Young kittens should receive multiple treatments with a safe and effective dewormer in order to eliminate and prevent disease and contamination of the environment with roundworm eggs. Roundworm prevention is essential because of the potential human health threat.