Prevention: The Key to Dealing with Intestinal Parasites

Most pet owners are aware that worms can be a serious problem for pets. This is particularly true in young puppies and kittens, but also holds true for adult animals. Since most pets are treated for intestinal parasites early in their lives, owners assume worms no longer pose a threat. Unfortunately, nothing could be further from the truth. Sticky eggs can be picked up by pets as they contact surfaces where other pets with worms have dropped egg-laden feces. Regular checks for parasites and appropriate deworming should continue throughout the lifespan of the pet.

Roundworms
The most common type of worm is roundworms. Their significance lies not only in being very common, but also in their ability to cause serious signs such as weight loss, vomiting, diarrhea, coughing, and in very rare cases, death. Roundworms also pose a public health hazard, especially when children accidentally ingest eggs.

When eggs of roundworms are ingested by young pets, hatching microscopic larvae burrow through the intestinal wall and enter the body’s tissues. A larva is the immature form of the worm (plural larvae). This “visceral larval migration” takes a minimum of three weeks and can occur until the young pet reaches six months of age. During this time, the larvae continue to develop and eventually re-emerge into the intestine and develop into the larger, spaghetti-like adult worms. By six months of age, the immune system stops this visceral migration and arrests the larva in the form of tissue cysts. These may remain dormant for the life of the pet, but will be reactivated in a pregnant female, liberating new microscopic larva back into the tissues.
These larvae enter the milk and penetrate the placenta (tissues around the fetus), effectively infecting developing offspring before and shortly after birth. Treatment for roundworms requires a dose every two weeks until 12 weeks of age, and then once a month until six months of age, because the dewormer only kills the parasites emerging back into the intestine, and not visceral larva or cysts.

**Hookworms**
Hookworms colonize the digestive tract and suck blood. They damage the lining of the intestines, leading to bloody diarrhea and, in some cases, can cause serious blood loss and death. These worms also pose a public health risk because larval forms can cause a skin rash or creeping eruption in humans. Repeat treatments are also necessary to eliminate this parasite.

**Tapeworms**
Tapeworms are quite common in both dogs and cats. The flea tapeworm may get into your pet when they swallow infected fleas. Outdoor cats often get a hunting tapeworm that is transmitted by eating rodent prey. Few pets actually suffer serious ill effects from tapeworms unless they carry heavy worm burdens. Owner disgust when segments are seen crawling around the floor, or in the fur at the back end of the pet, is usually the prime motivator for treatment. Owners also observe tapeworms as dried worm segments ("rice particles") around their pet's environment.

*Echinococcus* species are less common but are emerging tapeworm threats, and are found in certain parts of North America, including Canada. These small tapeworms are dangerous to people, so regular fecal parasite checks are very important!

**Whipworm**
A less common type of worm, called whipworm, can infect dogs. These worms often cause bloody diarrhea, leading to dehydration, unhealthy appearance, long-term weight loss and anemia.
**Single-Celled “Microscopic” Intestinal Parasites**

*Toxoplasma* and *Giardia* are examples of “single-cell” parasites, and though not visible “worms”, they are intestinal parasites.

**Toxoplasmosis**

Cats can shed toxoplasma cysts in the stool, and contact with cysts by pregnant women can lead to serious problems with the pregnancy and offspring. Other much more common but much less known sources of human toxoplasma exposure include handling uncooked or undercooked meats during meal preparation, youngsters playing in sandboxes, and gardening in flowerbeds contaminated with infected cat feces.

It is important to wear gloves during gardening and handling uncooked meat, and to eat only fully cooked meat. Pregnant women should not clean cat litter boxes as a preventive measure. Risk of transmission from your feline friends can be reduced by keeping your cat as an indoor denizen so they do not hunt rodents. Cats only shed the parasite for a few weeks after exposure to the parasite via hunting, so cats are a much maligned but, in fact, a very minor source of this parasite!

**Giardiasis**

*Giardia* is a single-celled microscopic parasite that has human health significance, causing so-called “beaver fever” in people. Water is the usual source; evidence points to only very rare transmission between pets and humans. Diarrhea, bloating and stinky feces (poop) are typical signs in all animals. Avoiding exposure to water contaminated with wild animal feces is a helpful prevention strategy, as is avoidance of direct contact with feces. If petting an animal with giardia, note that cysts can be present in fur especially around the back end, so wash hands after petting animals — especially if a pet has diarrhea.
**Treatment**

Medications are generally regarded as safe and many products have a wide spectrum of activity, often killing several types of parasites. It is important to have your pet’s stools tested, as recommended by your veterinarian. Routine treatment with appropriate deworming medication may be a recommended alternative for pets that are at high risk, such as pets that spend a lot of time outdoors. Individualized plans should be discussed with your veterinarian.

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