Although most common parasites of people, like pinworms and head lice, only infect people, some intestinal helminths (worms) of dogs and cats can also occasionally infect people, especially children. How this occurs depends on the species or type of worm.

The common dog and cat ascarids (commonly referred to as roundworms), *Toxocara canis* and *Toxocara cati*, respectively, pass eggs in the feces of an infected pet. These eggs develop to the infectious form in the soil and can survive in the environment within a thick-shelled egg for many years. When these infective eggs are ingested by another dog or cat, the adult worms develop in the intestine. However, when the eggs are ingested by a child - usually because the child eats dirt from an area contaminated with animal feces sometime in the past – the larvae migrate in the tissues of that child, creating severe inflammation. The larvae may go to the liver and cause damage there (visceral larva migrans), or they can even go to the eye, where a condition known as ocular larva migrans can develop. When severe, hospitalization and treatment to control the inflammation may be necessary.

Hookworms in the intestine of dogs and cats also pass eggs in the feces. Once in the environment, the larvae of hookworms hatch out of the eggs and crawl around looking for another pet to infect. Hookworm larvae can infect dogs and cats directly by penetrating the skin. However, when a person inadvertently comes in contact with the larvae in the soil, they penetrate the skin of that person instead and begin to migrate about creating linear tracts of inflammation, a very itchy condition referred to as cutaneous larva migrans. A dermatologist can recognize the characteristic lesions and prescribe appropriate topical treatment to alleviate the condition.

Some tapeworms of dogs and cats, such as the flea tapeworm *Dipylidium caninum*, can also infect people. In this case, it is not the pet feces that serves as the source of infection but a flea which acts as an intermediate host. Dogs and cats are infected with “flea” tapeworms when they ingest fleas during normal grooming. If a person, usually a child, inadvertently ingests an infected flea instead, the tapeworm can develop in the intestine, causing mild gastrointestinal discomfort in the child and great psychological stress to the parents when proglottids or pieces of the tapeworm are discovered in the diaper or stool of the child.

Fortunately, all of the common parasites of dogs and cats that can infect people can be readily prevented with routine veterinary care. Current recommendations are that all pets over 6-8 weeks of age should be maintained on monthly parasite control products that protect against infection with roundworms, hookworms, and fleas which serve as a source of tapeworms, as well as other common parasites of pets, like heartworms, whipworms, and ticks. Doing so not only protects the pets from parasitic diseases, it also protects the people with whom those pets live. With the high standard of care now routinely available from veterinarians, well cared for dogs and cats need not serve as a source of infection for other pets or people.

For more information, check out www.petsandparasites.com , a website developed and maintained by the Companion Animal Parasite Council.

This column is provided by the faculty of the OSU Boren Veterinary Medical Teaching Hospital. The large volume of questions does not allow us to directly respond to specific email questions so please watch for your answer in the column. Email your questions for the column to dvmon call@postoffice.cvhs.okstate.edu

and watch for your answer.

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