Parasites

There are two main types of parasites that dogs and cats can be affected by – internal and external.

External Parasites

External parasites are parasites that live on the surface of the skin. Frequently, these can be seen on the animal's skin. External parasites include fleas, ticks, mites and lice. External parasites can cause dogs and cats to itch. Fleas and ticks can also carry various disease which they infect the animal through their bites. Some dogs and cats can develop allergies to fleas; this can be a severe allergy for some individuals. Mosquitos can also cause bites, irritations, and in some instances, allergies.

Fleas and ticks can be seen by parting a dog or cat's coat. Owners can also use a flea comb to comb through the pet's fur to try to find fleas or the black specks fleas create (flea poop). Because cats spend so much time grooming, it can be challenging to find fleas; however, combing a cat on a white sheet or towel makes finding the black specks fleas create much easier. Ticks are usually found attached to the pet's skin. As the tick feeds its body becomes bigger and more easily seen. When attempting to remove a tick use fine-pointed tweezers to grasp the tick where it is attached at the body and gently and slowly pull to remove the tick. If you pull too fast there is a chance that the tick's mouth parts may be left in the skin. The animal's body will expel this in 2-3 weeks; during this time, you may feel a firm bump at the bite site.

Ticks can carry a number of different diseases that affect primarily dogs. In Pennsylvania, tick diseases include Lyme disease, Anaplasma, Rocky Mountain Spotty Fever, and Erhlichia. The best way to prevent exposure to ticks which may carry these diseases is to use effective year-round tick control. At present the best recommendation is to use Nexgard, Credelio, Bravecto, Advantix or the Seresto collar on your dog to prevent fleas and ticks. The best recommendation for flea and tick control on cats is Bravecto, Credelio or Revolution.

Fleas can carry a bacterial disease that affects cats and causes lethargy and anemia. If there are high enough numbers of fleas, a dog or cat can become anemic from the fleas biting and drinking too much of the animal's blood. This is particularly concerning for puppies and kittens. Some fleas carry an intestinal parasite called tapeworms. If a dog or cat grooms a flea carrying tapeworms and ingests it, there is a chance that in three to six months, owner may see small segments from the tapeworm on the hair around the anus, on the poop or where the animal was sitting or sleeping; these segments can look like grains of rice or sesame seeds.

There are different types of mites which can infect dogs and cats. The most common type of mite is the ear mite which lives primarily in the ear. Ear mites cause head shaking and itching; they result in excess black discharge in the animal's ears. If an ear mite infestation is severe enough, the mites can travel all over the body. There are skin mites which cause skin disease in both cats and dogs. Demodex is a mite that can affect younger dogs or cats of any age. Scabies is a mite disease that can be spread from dog to dog to humans and even cats. Lice primarily affect cats that have spent time outside with other cats. Cat lice is a cat only problem. Cats and dogs cannot catch or spread lice to humans; lice are species specific. Diagnosing mite or lice infestation requires and exam by a veterinarian.

Internal Parasites

There are two main types of internal parasites: parasites that infect the gastro-intestinal tract and parasites that infect the blood stream.

Cats and dogs can both be infected with hookworms and roundworms. These worms commonly get passed from



'mom' to the babies. These worms can also cause infection by dogs and cats sniffing in areas where other animals have defecated. This can expose the worm eggs to the animal's nose; the animal then licks its lips and unknowingly swallows the worm egg where it matures in the gastro-intestinal tract. Once in the gastro-intestinal tract the adult worm causes damage to the lining of the intestines and reproduces releasing eggs. Dogs and cats can then spread new infection when the worm eggs are then passed in their stool. Wildlife, such as opossum and raccoons, expose dogs and cats to intestinal worms.

Roundworm and hookworm infections can cause vomiting, diarrhea, weight loss, abdominal pain, and in severe cases, anemia. If a puppy or kitten has a severe case of roundworms they may either vomit a adult worm or pass an adult worm in the stool. The adult roundworm looks like a curled piece of spaghetti. Hookworms are too small to see with the naked eye.

Dogs and cats can be infected with Tapeworms. Tapeworms generally come from animals ingesting a flea containing a Tapeworm larvae or from eating an animal with Tapeworms, such as a rabbit or mouse. Tapeworms attach to the lining of the intestines where they grow. As Tapeworms grow, they release small segments which pass from the dog or cat's anus. These segments look like pieces of rice or sesame seeds; if the segments have just come from the anus they may move. The segments can be found on the hair of the animal around the anus, on their bedding or on top of their stool.

Dogs, but not cats, can also be infected with whipworms. Whipworms are passed through exposure to an infected dog's feces. Whipworms can cause severe diarrhea, weight loss, anemia and weakness. Whipworm eggs can survive in the environment for up to two years. This makes the possibility of infection greater not only for a back-yard dog but also in dog parks.

Giardia and Coccidia are single cell parasites that cause diarrhea. These single cell parasites are commonly found in standing water, such as puddles, where a dog comes along and drinks or sniffs then licks their lips.

For all of the above intestinal parasites, except Tapeworms, a fecal test can determine the presence of these parasites by either looking for the parasite, the parasite eggs or the parasite's antigen in the feces. It is recommended that all pets have a yearly fecal test.

Heartworm is a parasite carried by mosquitos and transmitted by the mosquito bite. A dog or coyote must have heartworm in order for the mosquito to ingest the immature heartworm in the blood meal. The mosquito then spreads the immature heartworm when it bites the next dog or cat. The immature heartworm stays in the skin for some period and then travels in the blood stream until it reaches the major blood vessels in the lungs and heart where it matures and causes permanent damage to the heart and the pulmonary vessels. This results in heart disease in dogs which worsens over time and can kill infected dogs. There is a treatment for dogs with heartworm parasites but the damage to the heart and pulmonary vessels is permanent. The treatment is very difficult for dogs as the worms are killed within the blood vessels and need to be slowly absorbed so as to not cause fatal clots as they die. Cats are better able to clear the immature heartworm but can end up with significant inflammation from the immature worm or even have mature heartworms. When cats are infected with heartworm disease, the result is lung disease which can kill them. There is no treatment for cats infected with heartworm disease.

There is a blood test that can be performed to see if your dog has been exposed to heartworm disease. It takes 5 to 7 months for the heartworm to be detected by the blood test. It is recommended to have this test performed yearly for dogs. Testing for cats requires two tests to try to determine if the cat has heartworm infection. Testing for cats is only recommend if the cat is symptomatic (coughing). The best way to prevent any possible heartworm transmission is to keep your dog, and in some cases cats, on a year-round monthly heartworm preventative.

