

Tapeworms

Have you ever noticed what looks like rice in your pets' fur around the rectum or on their fresh stool? Chances are that they have tapeworms and also fleas (more on this later). Tapeworms received their names because the segments and the body are very flat and look like a piece of tape. There are two types of tapeworms, *Dipylidium caninum* and *Taenia hydatigena*. They hook onto the intestinal wall with a structure called a rostellum. This structure looks like a hat with hooks on it. The tapeworm also has six rows of teeth that are used to grab onto the intestinal wall and the tapeworm absorbs nutrients through its skin from the intestinal tract of the host. Tapeworms can be six inches or longer while the individual segments are the size of a grain of rice.

Once the tapeworm is attached to the intestinal wall they begin to grow a long tail. The body of the tapeworm consists of the head segment to hold on with, a neck and several tail segments. Each tail segment contains its own digestive tract and reproductive system; they are basically separate individual bodies. The newest segments are located closer to the neck and the older segments get pushed further down on the tail. Once the segment reaches the end of the tail only the reproductive tract is left. The segment is then separated from the body and at that time the segment which looks like a sac only contains tapeworm eggs.

The sac is then passed from the host through the rectum and can be found on either the hosts' fur or in their stool. This is what most owners notice.



Dipylidium caninum
(Tapeworm egg)

The sac looks like a grain of white rice and can move.

Eventually the sac dries up and will look more like a sesame seed. The sac breaks open and the tapeworm eggs are released. At this point in their lifecycle the tapeworm eggs are



Taenia hydatigena
(Tapeworm egg)

not infectious to mammals. They must reach a specific developmental stage before they can become infectious. This is where the fleas come into play.

Larval fleas that hatch in the vicinity of the tapeworm eggs ingest the tapeworm eggs along with other organic debris. The flea and the tapeworm develop together. By the time the flea reaches its adult form the tapeworm is ready to infect a host. This is the only time in the development of the tapeworm that they are infectious to mammals. The flea that has a developed tapeworm in it must be ingested by the host. The flea typically becomes ingested through normal day to day grooming activities. Once the flea is ingested it is digested away releasing the tapeworm and the cycle begins again. It takes 3 weeks from the time the flea is ingested for segments of the tapeworm to be seen in the stool of the host.

Most of the time the tapeworm eggs are not able to be seen on a fecal exam because they are contained within the tapeworm segment and the segment needs to be broken down for the eggs to be seen. Most of the time seeing the segment in the fresh stool sample or on the fur around the rectum of the animal is confirmation enough. Often maggots can be misinterpreted as tapeworm segments. Maggots are not found on fresh stool samples and maggots are not flat.

The only way for your pet to get tapeworms is for them to come into contact with fleas. If your pet has tapeworms they have also come into contact with fleas and should also be

treated with a product such as Frontline or Vectra to eliminate the fleas. This treatment should be done every two weeks for two months. Clean any areas that your pet frequents in your home as well. The treatment for tapeworms is a dewormer that can be picked up from your veterinarian. We do recommend that if you notice tapeworm segments in one animal in your household that you treat any other animals in your household with both the dewormer and the topical flea and tick product.

It is possible for people to come into contact with tapeworms but they would have to come into contact with them the same way your pets do; through the ingestion of a flea that is infested with the tapeworm.

For more information feel free to call Cedar Grove Veterinary Services at 920-668-6212 or go to www.veterinarypartner.com.