Whipworms (Trichuris vulpis)

Drs. Foster & Smith Educational Staff

Whipworms (*Trichuris vulpis, Trichuris campanula*) are common in dogs and found throughout the United States. *Trichuris serrata* may rarely be found in cats. Whipworms get their name from the whip-like shape of the adult worms. The front portion of the worm is very thin (the whip) and the posterior end is thick (whip handle). Whipworms live in the large intestine and cecum (a small 'dead-end' portion of intestine lying at the junction of the small intestine and large intestine).

How are whipworms transmitted and how is whipworm infection diagnosed?

A dog or cat becomes infected by ingesting food or water contaminated with whipworm eggs. The eggs are swallowed, hatch, and in a little less than three months, the larvae mature into adults in the cecum and large intestine where they burrow their mouths into the intestinal wall and feed on blood. Adult worms lay eggs that are passed in the feces. The eggs must remain in the soil for about a month to mature and be capable of causing infection.

An infection is diagnosed by finding the eggs in the feces. The eggs must be differentiated from those of the bladder worm (*Capillaria plica, Capillaria felis cati*) and *C. aerophilia*, a parasite of the respiratory system, but whose eggs may be found in the feces. The female worms do not produce eggs every day, and the egg numbers are usually small, so repeat fecal exams may be necessary to find the eggs.

What are the signs of whipworm infection?

The signs of infection vary with the number of worms in the intestine. Small numbers of worms cause no signs, but larger numbers can result in inflammation of the intestinal wall. Large amounts of mucus are produced by the inflamed intestine. Sometimes hemorrhage into the intestine occurs, and anemia can result. Animals may have diarrhea and loss of weight.

Are whipworms a health hazard to people?

There have been reports of people being infected with *T. vulpis*. Humans are much more often infected with *T. trichiura*, the human whipworm.

How is a whipworm infection treated?

Common wormers are listed below; those that are effective against whipworms have a 'W' in the 'Effective Against' column.

Oral Treatments for Gastrointestinal Parasites in Dogs			
Ingredient(s)	**Example**	**Effective Against***	**Minimum Age/Weight**
diethylcarbamazine	Only compounded products available*	R	> or = 8 weeks
piperazine salts	Hartz Advanced Care Liquid Wormer/Sergeants Worm Away	R	> or = 6 weeks
ivermectin/pyrantel pamoate	Heartgard Plus** Tri-Heart Plus** Iverhart Plus**	R,H	> or = 6 weeks
pyrantel pamoate	Drs. Foster & Smith ProWormer-2, Nemex-2	R,H	> or = 2 weeks

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pyrantel pamoate/praziquantel	Virbantel	R,H,TT	> or = 12 weeks or 6 lbs
milbemycin oxime	Interceptor**	R,H,**W**	> or = 4 weeks or 2 lbs
milbemycin oxime/lufeneron	Sentinel**	R,H,**W**, F (immature forms only)	> or = 4 weeks or 2 lbs
imidacloprid/moxidectin	Advantage Multi**	R,H,**W**,F	> or = 7 weeks or 3 lbs
fenbendazole	Panacur-C, SafeGuard	R,H,**W**,TT	> or = 6 weeks
febantel/praziquantel/pyrantel pamoate	Drontal® Plus	R,H,**W**,TT,FT,ET	> or = to 3 weeks or 2 lbs
ivermectin/pyrantel pamoate/praziquantel	Iverhart MAX**	R,H,FT,TT	> or = 8 weeks
praziquantel	Droncit, D-Worm	TT,FT, ET	> or = 4 weeks
epsiprantel	Cestex	TT,FT	> 7 weeks

*Effective against these parasites:
R = Roundworms
H = Hookworms
W = Whipworms
F = Fleas
T = Taeniid tapeworms
F = Flea tapeworms
E = *Echinococcus granulosus* tapeworms
**Also prevents heartworm

> means greater than

How do we prevent and control whipworm infections?

Whipworm eggs are very resistant and can live in soil for years, even resisting freezing. Because of this, animals should be restricted from contaminated areas. There is no effective method for killing whipworm eggs in the soil. The only alternative is to replace the soil with new soil, gravel, and pavement. To prevent exposure, any feces in the yard should be picked up on a daily basis.

Floors in kennels and dog runs should be impervious so they are easier to clean. Kennels, runs, and litter boxes should be cleaned thoroughly, and if possible, be allowed to dry in direct sunlight.

Routine fecal examinations and deworming can help control this widespread parasite.

Because of the possible zoonotic potential of *T. vulpis*, care should be taken when cleaning, and people should wear gloves

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and wash their hands well after these duties.

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