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**ORAL PASTE** FOR DOGS AND CATS







The combination of fenbendazole and pyrantel increases their anti-parasitic effect. While pyrantel in monotherapy achieves maximum efficiency of 75% and fenbendazole only 45%, their combination achieves efficiency of more than 90%. The combination of all three active agents, i.e. fenbendazole, pyrantel and praziquantel eliminates not only roundworms but also hookworms, whipworms and all tapeworms.

# CANIVERM



# WHAT ARE PUPPIES BORN WITH?

#### Evolutional cycle of roundworm in dog – *Toxocara canis*

- 1. Direct transfer by devouring an egg with the infectious larva from the environment
- 2. Transfer by host by devouring of an infected rodent
- **3.** Transfer through milk larvae get to mother's milk and the puppy gets infected by sucking milk from the mother
- **4. Intra-uterine infection** puppies are infected by their mother » intra-uterine transfer of roundworm larvae through the placenta, the funicle to the foetus liver where the eggs remain till delivery » after delivery the larvae migrate to the lungs of the newborn puppy » begin circulation across the organism » the larvae are coughed off the lungs » swallowed to the digestive tract » and further develop in the intestine
- **5. Infection of human** by swallowing of an egg containing an infections larva which is inactivated in the tissues





# WHAT WILL TROUBLE YOUR KITTENS?

#### Evolutional cycle of roundworm in cat – *Toxocara cati*

- 1. Transfer by host (mouse) performs a major role in cats devouring a rodent containing infectious larvae » whole body migration from the trachea to the lungs and then to the digestive tract (stomach, intestine) » out with droppings to the environment
- 2. Intra-uterine infection does not occur in cats, unlike dogs (Toxocara cati)
- **3.** An important way of transfer is migration **via the milk gland**; tissue larvae and larvae activated in the period of gravidity migrate to the milk and are swallowed by the kitten with the milk





# WHAT CAN GET UNDER YOUR SKIN?

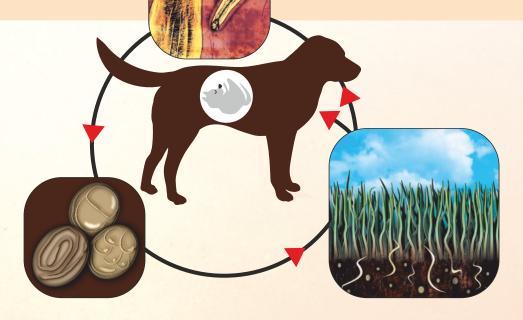
# Evolutional cycle of hookworm Ancylostoma caninum in dog - figure

- Infectious larvae are present n the soil, in the grass; the dog is infected by devouring the larvae (a.) or through skin contact (b.)
- The larvae are inactivated in the tissues (muscle, fat) potential re-activation may occur in the period of gravidity
- **3.** Puppies get infected in the course of intrauterine development and via the milk gland mother's milk contains larvae
- **4.** The eggs leave the organism with stool to the environment and the larvae develop in the grass

5. People get infected by direct contact with the soil contaminated with larvae – percutaneously, larva migrans cutanea

# Evolutional cycle of hookworm Ancylostoma tubaeformae in cat – no figure

- 1. Infectious larvae are present in the soil, in the grass, the cat is infected by devouring the larvae, with feed, by hair licking or through skin contact
- 2. Rodent may get infected via the mouth (mouse)
- **3.** The cat may get infected by devouring an infected rodent
- **4.** In the cat organism the larva inactivated in the tissues (muscle, fat) but may get reactivated and get into the intestine. Eggs leave the body with droppings and with a developing larva which completes its development in the environment.
- 5. People get infected by direct contact with the soil contaminated with larvae percutaneously, larva migrans cutanea

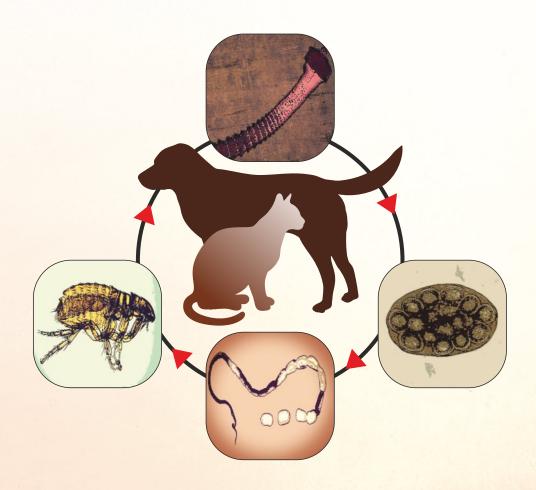




# WHAT DOES FLEA TRANSFER?

#### Life cycle of tapeworm Dipylidium caninum

- 1. Mature links of canine tapeworm leave the body with stool. The links contain eggs.
- 2. A flea larva devours the egg and the egg develops in the flea body to a larva-cyst
- 3. An adult flea with the larva-cyst is devoured by the dog or cat and an adult tapeworm develops in their body.

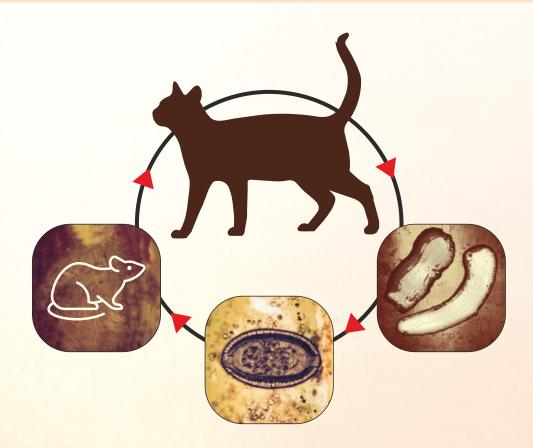




# WHAT CAN CAT OR DOG CATCH?

#### Life cycle of tapeworm Taenia taeniformis

- 1. The eggs spread in the environment from dog or cat droppings.
- **2.** Rodents devour the eggs (on the grass, on grains) or lick their hairs contaminated with the eggs. The larvae develop in their intestines and migrate to the liver of the rodent. There the larva-cyst forms *strobilocercus*
- 3. A cat or a dog devours the infected rodent containing the strobilocercus stage
- **4.** *Strobilocercus* matures in the cat or dog intestine into an adult tapeworm. After 6–8 weeks from devouring the rodent the cat or dog stool contains tapeworm links with many eggs.





# WHAT CAN HARM YOUR ORGANISM?

#### **Evolutional stages of** *Echinococcus multilocularis*

#### Definitive hosts – fox, wolf, dog and rarely cat

#### Interim hosts - rodents

- **1.** Adult echinococcus parasite in the intestines of carnivorous beasts and leave the organism with droppings
- 2. The eggs contaminate the environment, growth and are devoured by rodents
- **3.** Larvae migrate to the lungs or to the liver of the interim host, less frequently to muscles or eyes a multiple cyst forms, which contains many infectious scolexes of the echinococcus
- **4.** The rodent infected with the cysts is devoured by a dog or a cat. Larvae stick to the intestine wall and are transformed to an adult echinococcus.
- 5. The adult releases eggs to the stool, which again contaminate the environment with droppings
- **6.** The eggs may be accidentally devoured by a human and cysts containing the evolutional stages of the parasite. Human infection is called alveolar echinococosis, which metastases to different parts of the body and develops into a serious disease in a couple of years.





# Principles of correct deworming of puppies and kittens

Age	Deworming by Caniverm	
week 3	1 <sup>st</sup> deworming	
week 5 – 6	2 <sup>nd</sup> deworming	
week 7 – 9	3 <sup>rd</sup> deworming	
week 12 – 14	4 <sup>th</sup> deworming	
week 15 – 17	5 <sup>th</sup> dewormin	
after that every year	every three months	
gravid bitches and cats	once before conception, further together with first deworming of puppies, or kittens	





# The recommended dose of Caniverm

WEIGHT CATEGORY	CANIVERM PASTA	CANIVERM MITE	CANIVERM FORTE
Kittens and puppies ≤ 0.5 kg	0,2 ml of paste		
Kittens and puppies 0.5 – 2.0 kg	0,5 ml of paste	1 tablet	
Kittens and puppies 2.1–5.0 kg, small dogs, adult cats	1,0 ml of paste	2 tablets	½ tablet
dogs and cats 5–10 kg	2,0 ml of paste	4 tablets	1 tablet
Dogs 11–20 kg	4,0 ml of paste		2 tablets
Dogs 21-30 kg	6,0 ml of paste		3 tablets
Dogs 31-40 kg	8 ml of paste		4 tablets
Dogs 41-50 kg	10 ml of paste		5 tablets
Dogs 51-60 kg	12 ml of paste		6 tablets
Feline and canine beasts	Per every commenced 10 kg 2 ml of paste		Per every commenced 10 kg one tablet





# FREQUENTLY ASKED QUESTIONS...

#### How may roundworm appear in the stool of a four-month puppy dewormed at the age of 6 and 9 weeks?

Occurrence of roundworm in the stool or vomit of a twice dewormed puppy or kitten is relatively frequent. The reason is strong infestation of the environment with roundworm larvae and/or recurrent infection with this parasite from the environment and from milk. The most likely cause is insufficient application of anti-parasitic medication if it is not administered at least four times before the puppy reached 3 months of age. Regular deworming is recommended with regard to migration of the larvae through the digestive tract, the liver and the lungs. Anti-parasitic preparations kill adult roundworm in the intestines but not all larvae present in the organism. That is why puppies and kittens need to be dewormed in relatively frequent intervals. Double application of an anti-parasitic product is not considered sufficient.

#### What types of parasites may my dog be infected with?

In puppies and kittens you can often meet with roundworm and protozoan (coccidia, giardia), and in adult dogs also with tapeworm and whipworm. This infection usually affects dogs and cats below 2 years of age, where parasitosis is accompanied with clinical symptoms such as diarrhoea, vomiting or weight loss. Nearly half of dogs below 1 year of age suffer from roundworm, of which puppies before weaning are infected in up to 90%!!

#### Why deworming needs attention, especially in spring and summer months?

Excrements decomposed in the soil and containing eggs of roundworm and whipworm cannot be seen with naked eye and so all soil must be considered a potential source. The infectious eggs survive in the soil for several years, especially in humid soil and moderate climate. The sun and soil drying shortens their survival and inactivates the eggs. The sun also liquidates free larvae of hookworm. As the eggs excreted with droppings become infectious after two weeks, especially soil is a source of parasites for humans. People and animals get in contact with soil especially in spring and in summer when also movement of dogs and cats in the nature and in the gardens increases. Cats also intensely hunt rodents in spring and summer and thus the risk of their infection with evolutional stages of parasites is higher.

#### What are possible ways of infection of cats and dogs with roundworm?

Puppies may get infected from the mother while still in the womb for the larvae are transferred through the placenta (transplacental transfer). Another possible way of infection of puppies and kittens is mother's milk which also contains roundworm larvae (lactogenic transfer). Another way is of course oral when the puppy sniffs or licks the soil or other contaminated objects, or when devouring a rodent containing dormant evolutional stages of the parasite.

#### Can people get infected with roundworm from their pets?

People can get infected when not observing hygienic principles, which is especially true about children below 5 years of age. Dangerous is mainly work with soil containing evolutional stages of the parasites and cleaning of delivery and excreting places. Breeders should pay great attention to cleaning of the surroundings of the place when their dog or cat delivers the young and the places where the puppies and the mother are walked for this environment is the biggest source of the infected eggs. One adult female of roundworm living for 3-4 months lays around 100-200 thousand eggs a day. Millions of eggs are released from the body of a dog every day. The sources of parasite eggs are mainly puppies and dogs below 2 years of age. Older dogs are not considered a source of the parasite eggs.



### Can the risk of infection of people with internal parasites of dogs and cats be mitigated? When and where is the highest?

High concentration of eggs has been proven in our regions especially in gardens, lawns, yards and compost. Eggs of roundworm are spread on feet and nibs of birds, in the organism of earthworms and other worms, in water, and in towns on shoes and bicycle wheels. People can get infected in the case of insufficient hygiene of hand soiled with soil containing eggs with the infectious larvae, which is only documented with the highest occurrence of toxocarosis in children below five years of age. Small children, who often do not observe the basic hygienic rules, are in addition able to swallow earth or sand. The risk of infection may be mitigated by regular administration and anti-parasitic treatment proposed by your veterinarian on the basis of the type and size of the breed, and also by regular clearance of droppings.





# How often should an adult dog be dewormed if it has no symptoms and no parasites can be seen in the droppings?

Frequency of deworming depends on the method and size of the breed as well as on climatic and geographical conditions, including travels outside the Czech Republic. It is usually sufficient to deworm twice a year but if the dog is in contact with other dogs or puppies, visits kynological events and exhibitions or if it is a hunting dog it is recommended to deworm it three times a year. A recommended part of the anti-parasitic programme is coprological examination of the stool which confirms necessity and efficiency of deworming.

#### Are parasites causing skin changes and pruritus present in our country?

Yes, even under our conditions man can get infected with hookworm causing larva migrans cutanea syndrome. Similar clinical symptoms may appear in dogs or cats. Skin changes are caused by a small larva of the parasite moving through the skin. Its movement causes red itchy wave lesions which usually retreat spontaneously after a time. Man can get infected by barefoot walking on a soil infested with the larvae. The infection may also affect children playing on the grass or in the sand.

#### How can our veterinarian find out whether our dog is infected with eelworm?

As eggs as well as larvae of parasites leave the body through stool, to prove presence of parasites in the digestive tract you need a stool specimen with the weight of about 5 grams, i.e. the size of a hazelnut. As the eggs are excreted in certain periods, it is recommended to examine stool specimens taken in three consequent days, or ideally three specimens taken every other day. Your veterinarian will give you special sampling test tubes for hygienic collection of the dropping samples.

#### Are Caniverm tables and paste broad-spectrum medicines?

Yes, both the tables and the paste of the Caniverm series contain three active agents sufficiently efficient to free your dog or cat, puppy or kitten from the most frequently occurring parasites. The preparation acts against both round and tape worms and is effective against coccidian and flagellates of Giardia intestinalis (Lamblia).

## How many tablets of Caniverm forte should be administered to a one-year-old dog with the weight of 22.5 kg? Aren't three tablets too dangerous for it?

The correct dose of Caniverm forte tablets is one tablet per each commenced ten kilograms of body weight. This means that administration of three tables complies with the recommended dosage. You need not be afraid of overdosing, not even in the case of puppies for tolerance of this drug is very good even across a wide range of doses. Tests have not proved any side effects and health problems even in the case of multiple overdosing of preparations containing fenbendazole, praziquantel and pyrantel. For that reason the tablets do not need to be halved or even quartered. Clinical tests rather point to insufficient effectiveness and development of resistance of the parasites against under-dosed drugs.





# Are there any side effects of the tablets or paste? Should I fast the animal before the drug administration?

Side effects of Caniverm are not commonly observed. In the case of strong infestation with parasites, especially roundworm, transient diarrhoea may occur. Fasting before Caniverm administration is not required, being rather undesirable in the case of puppies. The preparation should be administered with a tear, feed etc. as the food will improve the drug availability in the organism.

#### What is the best way of administration of the tablets or paste?

Find out the exact weight of the dog or cat before administration. Puppies and kittens should be dewormed with Caniverm paste or tablets without halving the tablet and in the correct dosage. In the case of under-dosing the effect of the drug may be insufficient, the puppy or kitten may continue to be infected with the parasite and the parasite may develop resistance to the drugs of the same composition. When using the paste the applicator must be set to the correct dose for one puppy or kitten and the setting must be checked before each subsequent application. After application it needs to be checked whether the puppy or kitten has swallowed the paste or the tablet. Both drug forms, the tablets and the paste, may be mixed with feed, but not with milk.

#### When to start with deworming of puppies and kittens?

Puppies and kittens of correctly dewormed mothers may be first dewormed at the age of three weeks, ideally by the paste, which may be correctly dosed. If the bitch or cat had not been dewormed and the breeding conditions are not ideal (pounds) then the first deworming may be performed at the age of 14 days. Together with the young also the mother and other animals of the breed should be dewormed.





#### For how long the Caniverm paste and tablets are effective? Do they also act as prevention?

Both the tablets and the paste free the dog or car from parasites present in their digestive tract very quickly. Their effect is not long-term, though; and none of these preparations acts as prevention. This means that the drugs are unable to prevent recurrent infection.

#### Why should I clear droppings of my dog after walking it?

The droppings contain huge numbers of eggs. In the case of roundworm it is around 15 thousand eggs in a gram of droppings. Droppings left in the environment infest the soil with eggs for a very long time, as the eggs are very resistant to temperature and humidity changes. Therefore the soil becomes another source of parasites for dogs or cats, including yours.

#### What is the relation between flea and tapeworm?

Both cat and dog flea contains an evolutional stage of dog tapeworm Dipylidium caninum. The dog who in the course of hair treatment or in the case of itching and related scratching, licking and biting its skin swallows a flea, takes in this germ and an adult tapeworm develops in its intestine.

#### Our cat very often catches rodents. Does it need deworming more frequently than twice a year?

A cat that is a frequent and successful hunter, who hunts and devours rodents, even if occasionally only, should be dewormed every 4-6 weeks. Rodents have tapeworm germs in their bodies and cats that are active hunters very often lose weight for the reason of massive infection with these tapeworms. This way cats may also catch roundworms which they host in their intestines for the rest of their lives, unlike dogs.

# My dog does not show symptoms of diarrhoea, does not vomit or lose weight. Why should I deworm it regularly?

Adult dogs do not show signs of parasitosis, they are able to fight against the parasites, but in their stool infectious eggs may be present and represent a source of parasites for other dogs and cats as well as for people and increase infestation of the environment.





#### 1 ml of the paste contains:

Active agents: Fenbendazole 75 mg Pyrantel 72 mg

> Praziquantel 25 mg Yellow oral paste.

#### Indications and target animal species

Diseases caused by dog and cat helminths (Toxocara canis, Toxocara cati, Toxascaris leonina, Uncinaria stenocephala, Ancylostoma caninum, Trichuris vulpis, Echinococcus granulosus, Echinococcus multilocularis, Dipylidium caninum, Taenia spp., Multiceps multiceps, Mesocestoides spp.).

#### Administration in the periods of gravidity and lactation:

Accurate dosing must be observed in the case of gravid bitches.

#### Posology and method of administration:

Oral administration.

#### Posology:

Recommended dose is 15 mg fenbendazole, 14.4 mg pyrantel embonate and 5 mg praziquantel per 1 kg of live weight, i.e. 1 ml of paste per 5 kg of live weight.

#### Cat:

- 0.5 ml of the paste per 0.5–2 kg of live weight
- 1 ml of the paste per 2.1-5 kg of live weight

#### Dog:

- $0.5\,\mathrm{ml}$  of the paste per  $0.5-2\,\mathrm{kg}$  of live weight
- 1 ml of the paste per 2.1-5 kg of live weight
- Further 1 ml of the paste per each 5 kg of live weight

#### **Best before date:**

The veterinary medicine can be used for 18 months if stored in intact package.



**Expiration after the first opening of the inner package:** 6 months.

#### Type and composition of the inside package

**Inside package:** Applicator: a white HDPE applicator and a HDPE piston with body weight scale with a HDPE cap and PP dosing ring.

Exterior package and package size: Paper box with 1 or 10 applicators, 1×10 ml

The applicator should be adapted to the dose calculated according to the above scheme by setting the ring to the specific place on the piston: Hold the injection piston, shift the grooved dosing ring by turning for the bottom side of the ring to align with the line marking the required volume. Make sure the animal has not food residues in the mouth. Remove the cap of the applicator, place the applicator in the mouth and apply the paste on the root of the tongue. The dose is applied all at the same time. In the case of young it is recommended to deworm from week 3 to week 12 by single doses every 3 weeks and then periodically every 3 months.



Anti-parasitic preparation against round and tape worms

#### **ACTIVE SUBSTANCE AND EXCIPIENT CONTENTS**

**Caniverm** is light yellow tablets with the weight of 0.175 g, containing:

Active agent(s): Fenbendazolum 37.5 mg

> Pyranteli embonas 36.0 mg **Praziquantelum**

12.5 mg



#### **INDICATIONS:**

Diseases caused by roundworms and tape worms of dogs, cats and feline and canine families: (Toxocara canis, Toxocara cati, Toxascaris leonina, Uncinaria stenocephala, Ancylostoma caninum, Trichuris vulpis, Echinococcus granulosus, Echinococcus multilocularis, Dipylidium caninum, Taenia spp., Multiceps multiceps, Mesocestoides spp.).

#### POSOLOGY PER SPECIES, WAY OF ADMINISTRATION

**Posology:** In the case of young it is recommended to deworm from week 3 to week 12 by single doses every 3 weeks and then periodically every 3 months.

#### Puppies, small dogs and cats:

- 1 tablet 0.175 g per 0.5 2 kg of live weight
- 2 tablets 0.175 g per 2 5 kg of live weight

#### Method of administration: Orally.

#### Instruction for correct administration:

Tablets may be administered separately or wrapped in a piece of feed. The whole dose is administered at once. Do not administer together with milk feed. In the case of beasts (feline, canine) in zoos, circuses etc. it is recommended to mix crushed tablets in meat balls according to the weight of the beast and spread the number of balls corresponding to the number of the animals in the aviary before morning feeding. Try to prevent underdosing for the reason of incorrect specification of live weight of the animal or incorrect administration.

#### Special precautions for storage:

Keep out of reach of babies and children. Store at temperatures up to 25 °C. Store in a dry place. Protect against light. Do not use after expiration date specified on the package and on the blister.



Anti-parasitic preparation against round and tape worms

#### **ACTIVE SUBSTANCE AND EXCIPIENT CONTENTS**

**Caniverm** is light yellow tablets with the weight of 0.7 g, containing:

Active agent(s): Fenbendazolum 150 mg
Pyranteli embonas 144 mg

**Praziquantelum** 50 mg

# 6 tablets 6 tablets Fenbendazolum, pyranteli embonas, praziquantelum

CANIVERM

#### **INDICATIONS**

Diseases caused by roundworms and tape worms of dogs, cats and feline and canine families: (*Toxocara canis, Toxocara cati, Toxascaris leonina, Uncinaria stenocephala, Ancylostoma caninum, Trichuris vulpis, Echinococcus granulosus, Echinococcus multilocularis, Dipylidium caninum, Taenia spp., Multiceps multiceps, Mesocestoides spp.*).

**Target species:** Dogs, cats, feline and canine families.

#### POSOLOGY PER SPECIES, WAY OF ADMINISTRATION

**Posology:** In the case of young it is recommended to deworm from week 3 to week 12 by single doses every 3 weeks and then periodically every 3 months.

#### Puppies, small dogs and cats:

• 1/2 tablet 0.7 g per 2 – 5 kg of live weight

#### Medium-sized dogs:

• 1 tablet 0.7 g per 5 - 10 kg of live weight

#### Large dogs and beasts:

• 1 tablet 0.7 g per each commenced 10 kg of live weight

#### Method of administration: Orally.

#### INSTRUCTION FOR CORRECT ADMINISTRATION:

Tablets may be administered separately or wrapped in a piece of feed. The whole dose is administered at once.

Do not administer together with milk feed.

In the case of beasts (feline, canine) in zoos, circuses etc. it is recommended to mix crushed tablets in meat balls according to the weight of the beast and spread the number of balls corresponding to the number of the animals in the aviary before morning feeding. Try to prevent under-dosing for the reason of incorrect specification of live weight of the animal or incorrect administration.

#### **SPECIAL PRECAUTIONS FOR STORAGE:**

Keep out of reach of babies and children. Store at temperatures up to 25 °C. Store in a dry place. Protect against light. Do not use after expiration date specified on the package and on the blister.

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