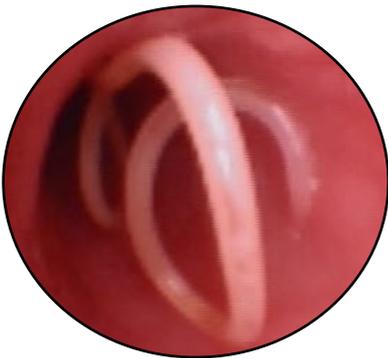


Worms in dogs

Most puppies are born with worms, and people are familiar with the importance of treating for these internal parasites. Symptoms can be vague and mild, especially with minor infestations. However the range of worms seen across the UK is increasing, due to climate change, increased overseas travel, and changing life styles. These newer worms can cause more severe disease, and many can also affect people, so regular worm treatment is more important than ever.



Roundworm in the intestine

Roundworms

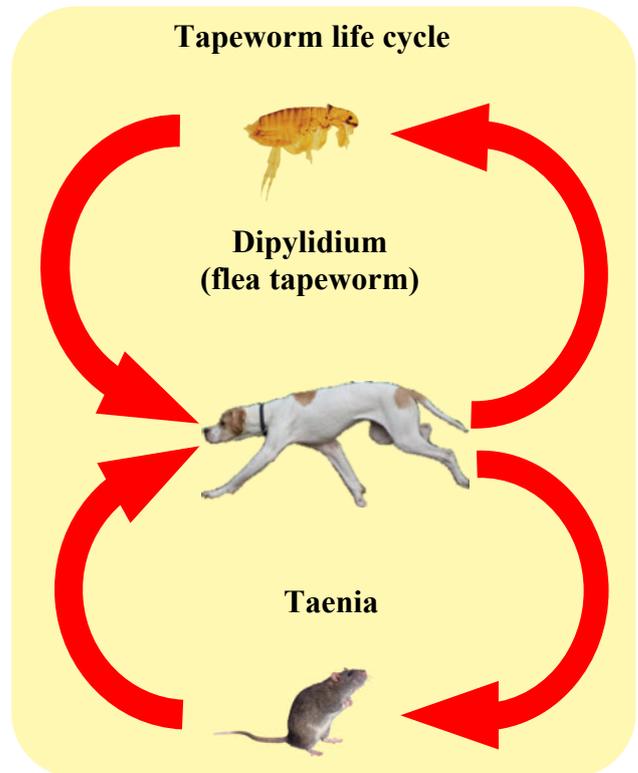
Roundworms are the most common internal parasite, and almost all puppies are born with them, as they are passed on by their mothers before birth, or in the milk. The worms live in the intestine, and pass eggs in the faeces which can survive in the soil for several years. These eggs then re-infest dogs. Mild infestations may cause no signs, but heavy infestations will cause diarrhoea, weight loss, and a pot belly. These worms also occasionally infest people, when they can cause damage to other organs such as the eye and brain - especially in young children. Regular worming of dogs, especially when young, and standard hygiene proportions, will help to reduce the risk to children.

Tapeworms

Tapeworms are the other common worms seen in dogs. They rely on an intermediate host for their life cycle. Eggs passed in faeces of the dog are eaten by the intermediate host. The dog then eats the intermediate host containing the immature stages of the worm. The most common tapeworm is *Dipylidium* - the flea tapeworm. The other common tapeworm is *Teania* - for which the intermediate hosts are farm animals, rabbits and rodents. Hence flea infestations and hunting increase the exposure to tapeworms. These worms cause mild signs (diarrhoea, weight loss) in dogs, but significant problems in the intermediate host, and so control is important to protect the agricultural economy.

Although these tapeworms do not affect people, a third tapeworm, called *Echinococcus*, will infest people causing potentially fatal damage to internal organs, especially the liver. *Echinococcus* is rare in the UK but more common in Europe.

Tapeworm life cycle





Hookworm and Whipworm

Hookworm is uncommon in the UK, although the incidence is increasing due to the large number of urban foxes which carry the parasites. Eggs passed in the faeces are eaten, or can pass through the skin of the paws. The adult worms attach to the lining of the gut, and feed on blood, so heavy infestations can cause anaemia.

Whipworms are also uncommon in the UK, but more common on the continent. They live in the lower intestine, and may cause mild diarrhoea, although heavy infestations can cause severe bloody diarrhoea.



Head of a hook worm showing teeth used to attach to the intestine lining.



Angiostrongylus

(Courtesy of Bayer Animal Health)

Heartworm and Lungworm

There are two types of heartworm. *Dirofilaria* is found on the continent, and is spread by mosquitoes. Infestations cause heart failure, and regular treatment of animals going abroad is advisable. *Angiostrongylus* is found in the UK, and is becoming more common. Infestation occurs when dogs eat slug and snails, which are the intermediate host. It causes heart and lung disease, as well as bleeding due to damage to the blood clotting system. Cats are not affected by heartworm

Lung worm infests the airways of the lungs, and can cause coughing and breathing problems. It is spread when pets eat infested faeces.

Treatment

There is no treatment that is 100% effective against all these worms. Treatment should therefore be based on the relative risk and seriousness of the different worms. For example, treatment against tapeworms is important for hunting animals, while dogs going to France regularly should have routine treatment against *Dirofilaria*.

Frequency of worming also depends on risk of exposure, but we recommend treatment every three months on average.

	Roundworm	Flea Tapeworm	Taenia	Echinococcus	Hookworm	Whipworm	Dirofilaria	Angiostrongylus	Lungworm
Johnson's twin	✓	✓	✓						
Bob martin all-in-one	✓	✓	✓		(✓)				
Drontal plus	✓	✓	✓	✓	✓	✓			
Panacur	✓		✓		✓	✓			✓
Milbemax	✓	✓	✓	✓	(✓)	✓	✓	(✓)	✓
Stronghold spot-on	✓						✓		
Advocate spot-on	✓				✓	✓	✓	✓	