



# Prevalence of *Toxocara canis* eggs in faecal deposits from pet dogs in Liège, Belgium

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## Introduction

*Toxocara canis* is an intestinal parasitic nematode of canids.

In man, it may induce different syndromes such as *ocularis larva migrans*, *visceralis larva migrans* and covert toxocariosis.

Human beings become infected by ingesting embryonated eggs from contaminated sources (e.g. soil, earthworms, dog's coat etc.).

In European urban areas, environmental contamination by *T. canis* eggs occurs through the faeces of infected dogs which serve as the main final host for the parasite.

In Belgium, there are few published data about both the prevalence of *T. canis* infection in dogs and the environmental egg contamination.

Moreover, no study has focused on the estimation of *T. canis* eggs prevalence in canine faeces which are illegally left by the owners in the cities.

## Objective

This study was designed to evaluate the prevalence of *T. canis* eggs in unlawful faecal deposits from pet dogs on footpaths in the city of Liège, Belgium.

## Material and methods

Between January and May 2002, 460 canine faecal samples were randomly collected on the footpaths of the town and submitted for coprological analysis at the Laboratory of Veterinary Parasitological Diagnosis from the University of Liège. Analysis was performed using both a modified Mac Master technique and a zinc chloride flotation technique.

## Results and discussion

Among other nematodes, *Toxocara canis* was the most commonly identified species (Table).

Table. Helminth infection found by coprological analysis of 460 canine stools collected in the city of Liège, Belgium

Parasites	Dogs positive	
	No.	%
<i>Toxocara canis</i>	22	4.8
<i>Trichuris vulpis</i>	7	1.5
<i>Strongyles</i>	7	1.5
<i>Toxascaris leonina</i>	5	1.1

Figure 1. *Toxocara canis*: unembryonated eggs in dog faeces



Figure 2. Unlawful canine faecal deposit in the city of Liège, Belgium



This study demonstrates that in Belgium, as in many European countries and other parts of the world, *T. canis* is common in dogs, although appropriate anthelmintics are widely used by the pets owners.

Moreover, it shows that, on the average, approximately one out of 20 illegal canine faecal deposits on the footpaths of Liège contains eggs of the zoonotic roundworm *T. canis* (Fig.1).

Considering the high frequency of these illegal deposits across the town (Fig.2), the regular contamination of pedestrian's shoes by faeces, and the threat for public health, it is proposed that administrative authorities adopt measures to reduce the risk of zoonosis.

Recommendations may include obligatory anthelmintic treatments of dogs by official vets and application of a zero tolerance for unlawful canine faecal deposits in cities.

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