

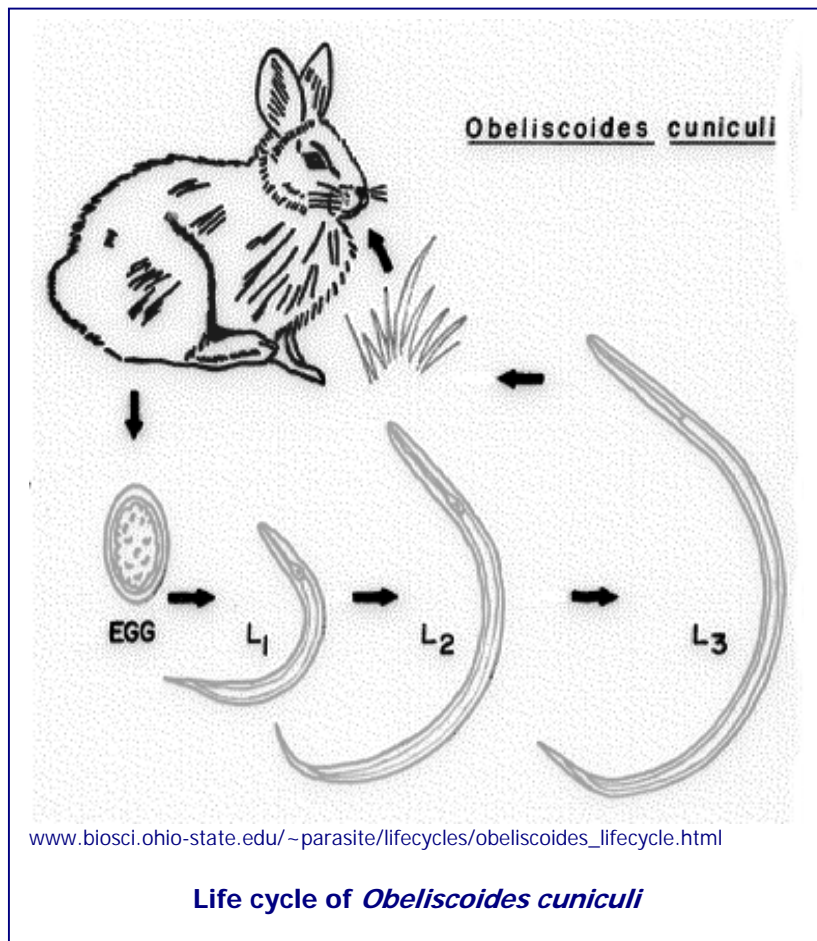
## *Obeliscoides cuniculi*

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This parasite is cosmopolitan. Two clearly defined subspecies have been recognized:

- *Obeliscoides cuniculi multistriatus* infecting snowshoe hares (*Lepus americanus*),
- *Obeliscoides cuniculi cuniculi* infecting mainly the eastern cottontail rabbits (*Sylvilagus floridanus*).

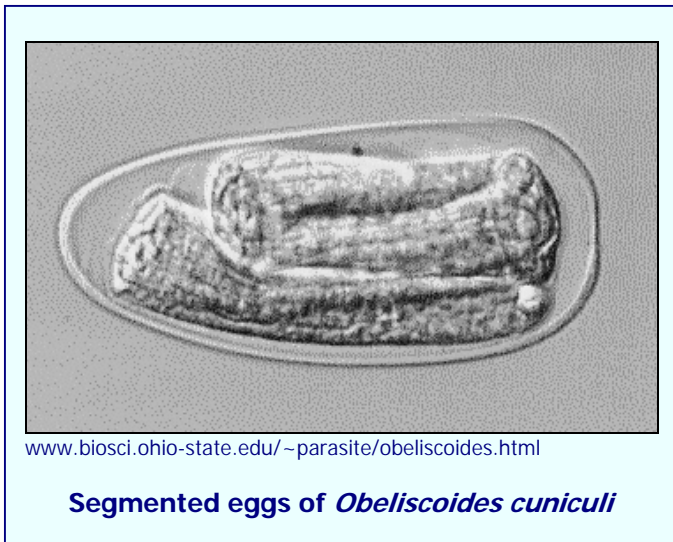
The type host of *O. c. cuniculi* is the house rabbit, although the other subspecies is also occasionally found. Experimental crosses of males of *O. c. c.* and females *O. c. m* produced viable progeny with mixed systemic characters, but there is no evidence that this occurs in nature. It is generally referred to as the rabbit stomach worm. It does not represent a public health danger. The life cycle of *Obeliscoides cuniculi* is direct.



**Obeliscoides cuniculi multistriatus :**

The eggs are about 96 \* 46 µm in size and excreted with the feces. They generally have a thin shell. The larva develops inside the eggs and hatches after 30 - 36 h. The larvae become reaches the L3 stage on the 6th, and becomes infective by penetrating the mucosa of the stomach. Within 24 h., the larva exsheates in the stomach and will develop into a mature adult.

The adult parasites are pink and have no buccal capsule. They are located in



the mucus layer, which closely adheres to the surface of the stomach. The males (10 - 15 mm long) have well developed lateral lobes on the bursa copula, supported by rays, and a pair of spicules. The females (15 - 18 mm) have a pointed tail and the vulva is in the caudal part of the body. Shedding of eggs starts 16 to 20 days after the infection and continues for 61 - 118 days.

**Obeliscoides cuniculi cuniculi**

The eggs are slightly smaller than the other subspecies: 83 \* 47 µm. They are excreted with the feces at a 32 cells stage. The larva will develop from the L<sub>1</sub> to the L<sub>3</sub> stage on the 6<sup>th</sup> days. The larva resists temperatures of -4 to 2 °C but not desiccation.

After ingestion, the L<sub>3</sub> larvae will exsheat within one hour and start invading the gastric mucosa. The final molt probably occurs as worms migrate from the mucosa, starting on days 5 after the ingestion, as worms can be observed on the surface of the gastric mucosa.

**Symptoms**

The presence of *Obeliscoides cuniculi* rarely causes noticeable clinical signs in rabbits. Severe infection causes hemorrhagic gastritis, accompanied by a failure to gain weight, anemia, anorexia and diarrhea in rabbits, during the first two weeks of infection only, after which the animals regain their normal condition. The presence of *Obeliscoides cuniculi* is diagnosed through fecal flotation, and identification of the eggs in the feces.

Necropsy shows that where adults worms adhere closely to the mucus



coating of the stomach and some can be observed in the gastric crypts. Pathological signs are limited to the stomach, with a thickened and granular (“cobblestone”) mucosa, due to the combination of larval parasites, glandular hyperplasia and infiltration of inflammatory cells.

**Treatment:**

<b>Benzimidazoles</b>	fenbendazole	10-20 mg/kg, PO, repeat in 10-14 days
	thiabendazole	100-200 mg/kg, PO nine dose regimen = one dose of 110 mg/kg PO, followed by eight doses of 70 mg/kg, q4 h. (Watkins at al., 1984).

**Further information**

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