# OESOPHAGOSTOMIASIS

| ANIMAL GROUP AFFECTED | TRANS-MISSION | CLINICAL SIGNS | FATAL DISEASE ? | TREATMENT | PREVENTION & CONTROL |
|---|---|---|---|---|---|
| Old World monkeys, great apes, man | Perorally | Diarrhea, weight loss, weakness | In heavy infections yes | Thiabendazole | *In houses* Ovocontrol, steam desinfection of wood-chip beddings / soil. *in zoos* ovocontrol Steam desinfection of wood-chip beddings / soil |

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**Susceptible animal groups**
Great apes, Old World monkeys, man.

**Causative organism**
*Oesophagostomum apiostomum, O.aculeatum, O. bifurcum*, *O stephanostomum, O.kherai.*

**Zoonotic potential**
Yes.

**Distribution**
As natural infections: Africa, Asia, in captivity : World-wide.

**Transmission**
Perorally through the sheathed fourth larval stages (very resistant to drying!).

**Incubation period**

**Clinical symptoms**
Minor infections are usually well tolerated, heavy infections induce diarrhea, weight loss, weakness , and death, in man “Dapaong tumor”.*O.stephanostomum* appears especially harmful in orangutans.

**Post mortem findings**
Semi-globose to lentil-shaped, pearl-like or greenish-grey to blackish nodules of 2 – 5 mm diameter in the submucosal layer of the large intestines. On the cut surface the nodules are cysts filled by a brown, creamy material and connected to the intestinal lumen by a small ulcer. ( The swallowed 3$^{rd}$ larvae burrow into the large intestinal submucosa, and return after one more molt to the intestinal lumen. In pre- immunized hosts the return to the intestinal lumen is blocked by immune reactions, the larvae are trapped and die, thereby leading to inflammation, necrosis and haemorrhages in the surrounding tissues: cyst formation).

**Diagnosis**
Ovodiagnostic (Cave: *Oesophagostomum* – eggs are easily confused with hookworm-eggs!)
PCR-RFLP,Random Amplified Polymorphic DNA –Gel – electrophoresis.

**Material required for laboratory analysis**
Faecal samples, at necropsy adult worms, nodular tissues.

**Relevant diagnostic laboratories**
Local veterinary laboratories.

**Treatment**
Thiabendazole.

**Prevention and control in zoos**

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| **Suggested disinfectant for housing facilities** |
| **Notification** |
| **Guarantees required under EU Legislation** |
| **Guarantees required by EAZA Zoos** |
| **Measures required under the Animal Disease Surveillance Plan** |
| **Measures required for introducing animals from non-approved sources** |
| **Measures to be taken in case of disease outbreak or positive laboratory findings** |
| **Conditions for restoring disease-free status after an outbreak** |
| **Experts who may be consulted** |

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