



ENTAMOEBIA MURIS

CLASSIFICATION

Order: Amoebida

Family: *Entamoebidae*

Genus: *Entamoeba*

- Amoeboid
- 4 life stages – trophozoite, precystic, cyst and metacystic
 - Trophozoite – mature adult, irregular shape (12-30µm)
 - Precystic stage – small amoeboid shape formed prior to encystment
 - Cyst – infective stage (mice 9-19 µm; rats 12-22 µm)
 - Metacyst – excysting stage with many nuclei giving rise to trophozoites
- Found in caecum and colon of rodents

PREVALENCE

Entamoeba muris is the only amoeba found in laboratory mice with the prevalence in laboratory and wild mouse populations ranging from 5 to 55%.

DIAGNOSIS

Direct microscopy

DISEASE/CLINICAL SIGNS

E. muris is considered non-pathogenic, and thus non-symptomatic, however little is fully understood about this parasite. In humans, *Entamoeba* species are very important in public health as it is a causative agent of dysentery and diarrhoea, and in more severe cases can subsequently result in death.

STRAINS

There are 25 *Entamoeba* species infecting a range of hosts (guinea pigs, humans, monkeys, amphibians, cattle, pigs and goats). *E. muris* is the only species to infect rodents, including mice.

TRANSMISSION

Transmission is via the faecal-oral route (ingestion of cyst).

INFORMATION SHEET



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INTERFERENCE WITH RESEARCH

Interference with experimental design or reproducibility has not been reported. However different mouse strains do appear to respond differently when inoculated with *E. histolytica* (causative agent of dysentery in humans).

DURABILITY

The environmental stability of *E. muris* cysts is unknown and chemotherapeutic elimination of *E. muris* has not been reported.

CONTROL

Maintain regular health monitoring of supplier sub-populations and strict protocols for barrier colonies. Exclude wild mice from facility. Strict sanitation control.

POST INFECTION

Rederivation can be used to repopulate rodent colonies and strict protocols for barrier colonies.

BIBLIOGRAPHY

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