

# ***Toxoplasma gondii***



# INTRODUCTION

## *Toxoplasma gondii*

- Protozoan parasite.
- Phylum Apicomplexa.
- Opportunistic parasite.
- Cosmopolitan distribution.

- **Hosts**

- Primary host: cat
  - Intermediate host: warm blooded animals
- **Toxoplasmosis:** a zoonotic infection



**Definitive host**



**Intermediate host**

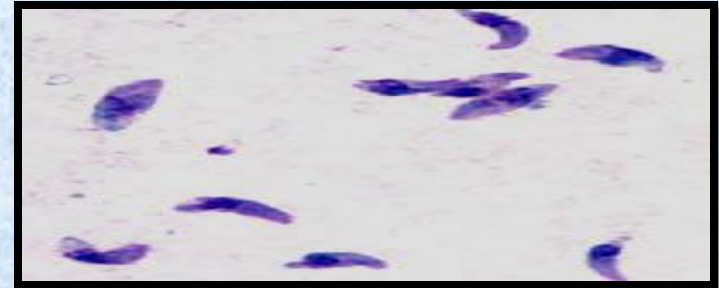
# SYMPTOMS

- **Acute symptoms** (Inapparent or commonly manifests as Flu, fever and tiredness)
- **Chronic symptoms**
  - Reproductive dysfunction
  - Encephalitis
  - Mental retardation
  - Thyroiditis
  - Ocular toxoplasmosis
  - Pneumonia

# LIFE STAGES

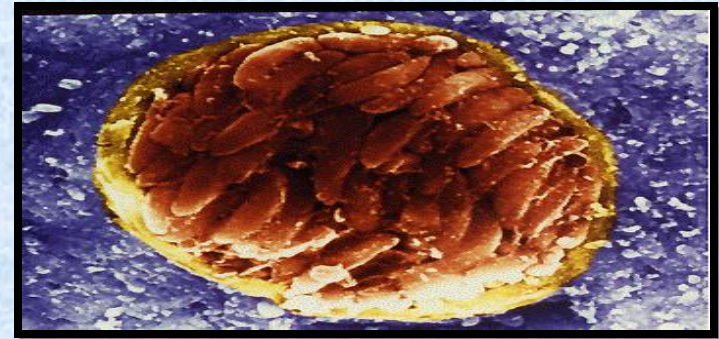
## a) Tachyzoites

Rapidly growing stage present in body fluid and observed in acute infection.



## b) Bradyzoites

Slow growing Stage inside the tissue cysts and present in chronic phase of infection.

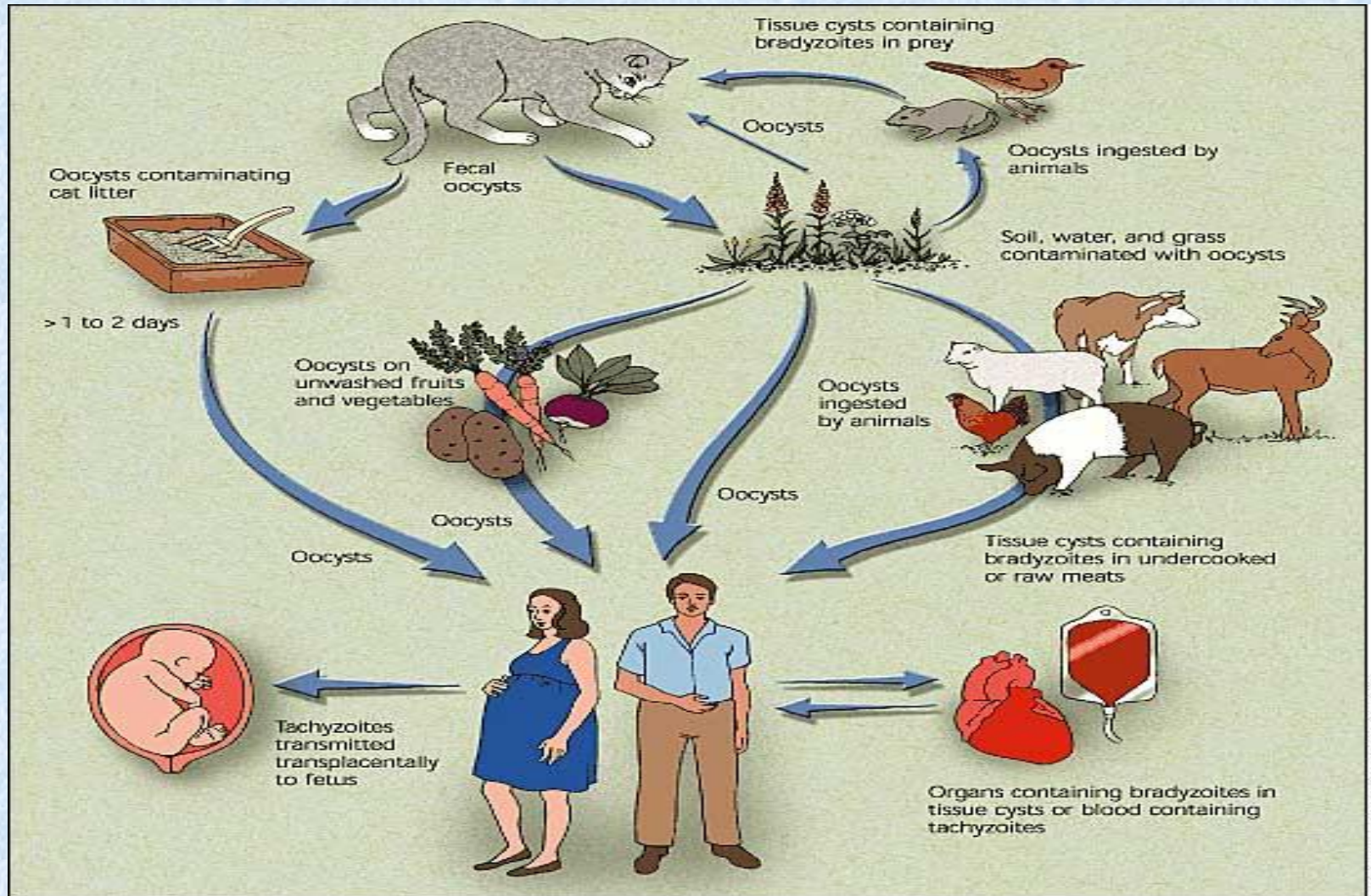


## c) Oocyst

Most resistant stage and noninfectious before sporulation, Sporulated oocyst remain infective for years.



# LIFE CYCLE



- **Susceptible population**

- Pregnant mother

- Immunocompromised persons

- People with low socioeconomic status

- **Transmission routes**

- Vertical : mother to developing baby

- horizontal: contaminated food, water and air

# RISK FACTORS

- Eating undercooked and/or raw meat
- Drinking contaminated milk and water
- Gardening
- Unsafe blood transfusion
- Pica habits
- Eating unwashed fruits and vegetables
- Exposure to oocyst contaminated soil
- Agriculture
- Unhygienic practices

# DIAGNOSIS

- Demonstration of trophozoite/cysts
- Histopathology of lymph node
- Dye tests
- Immunoassays
- Latex, ELISA, IHAT, IFAT
- MOLECULAR assays



# Prevention and control

- Prevention of human-cat contact
- Proper cooking of meat
- Proper hand washing, cleaning of fruits and vegetables
- Proper screening of blood before transfusion especially to immunocompromised persons



Thank  
you



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Thank you



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