

Toxoplasmosis

Cause: *Toxoplasma gondii*, a protozoan parasite. The cyst form of the parasite is extremely hardy, capable of surviving exposure to freezing, moderate temperatures and chemical disinfectants such as bleach, and can survive in the environment for over a year.

Occurrence in Animals: Cats are the definitive host; however, there is a wide range of intermediate hosts (e.g. birds, sheep, cattle, pigs, dogs, kangaroos, humans, etc).

Source of Infection in Animals: feces of infected cats; tissues (predominantly muscle) of infected intermediate hosts.

Transmission: Most commonly through ingestion of tissue cysts in undercooked meat of intermediate hosts (e.g. lamb, pork, chicken). Transmission can occur through hand-to-mouth contact following cleaning a cat's litter box, contact with children's sandboxes where cats may have defecated, or by touching anything that has come into contact with cat feces.

Observable Signs of Infection:

Animals:

- Usually asymptomatic in cats and intermediate hosts.

Humans:

- Most infections are inapparent (no outward visible signs).
- May see mild fever, chills, headache, muscle ache.
- Severe disease can occur in children of pregnant women not previously exposed to *T. gondii* (severe neurological damage to fetus may result) and in immunocompromised individuals (e.g., severe neurological disease in HIV positive people or those receiving immunosuppressive drugs).

Precautions:

- Good personal hygiene:
 - **WASH HANDS** after handling animals, particularly **cats** or their litter box
 - No eating, drinking, smoking, etc., around animals and their environments.
- Litter trays should always be cleaned every day (feces require 24 hours to become infectious) and gloves should always be worn. Masks may be worn if there is a risk of splash into mouth/eyes.
- Ensure rodents/birds do not have access to rooms where cats are housed.
- Pregnant workers are encouraged to determine their pre-natal blood titer (antibody levels) to *T. gondii* to help determine risk, and should contact EHSS to discuss this further.

Reference: Handbook of Zoonoses: Identification and Prevention; Colville JL and Berryhill DL, eds. Mosby. St Louis. 2007.

Additional Information:

<http://www.cdc.gov/toxoplasmosis/>

<http://www.vet.cornell.edu/fhc/brochures/toxo.html>