



TOXOPLASMOSIS

What is Toxoplasmosis?

Toxoplasmosis is a parasitic disease caused by an organism called *Toxoplasma gondii*. This parasite can infect almost any warm-blooded animal or bird and humans though cats are the only animals that can spread this organism through faeces. If a cat does become infected, it will only shed eggs for around 2-3 weeks in the cat's life. Cats develop immunity against the parasite, which usually prevents reinfection and further shedding. Eggs that have been shed in faeces need to be exposed to air for 1 to 5 days before they become infective to people or other animals though they can remain infective for up to 18 months in the soil.

When other animals and humans become infected with this parasite through ingestion of this parasite, cysts are formed in their tissues (muscle, brain, etc.), but no adult parasites develop in their intestinal tract.

How do people or animals become infected?

Infection is caused by

- Ingestion of infective cysts in tissues by eating or handling raw or undercooked meat (of any potentially infected animal such as beef, lamb, pork, chicken) or unpasteurised milk.
- Ingestion of food (eg fruits and vegetables) or water contaminated with infective eggs (that have been shed greater than 24 hours prior) from cat faeces (for example home gardens).

What are the symptoms and treatment in humans?

Most healthy people develop minimal or no symptoms. If symptoms occur they usually resemble the flu; eg fever, enlarged lymph nodes, fatigue, headache and sore throat. Once exposed to the parasite, immunity usually develops, preventing re-infection. Most people require no treatment. People showing symptoms of toxoplasmosis are generally treated with antibiotics. Treatment for pregnant women is more complex.

People likely to develop symptoms are children and people with compromised immune systems. Pregnant women who become infected with toxoplasmosis risk affecting their unborn baby.

Toxoplasmosis and Pregnancy

When a previously non-infected woman becomes infected during pregnancy with *T. gondii*, there may be no clinical signs, however there is a chance that the unborn baby may become infected as well. The effect on the baby depends heavily on the stage of pregnancy but is most severe during the first half of the pregnancy. Infection may result in stillbirths, spontaneous abortions, or the development of permanent birth defects such as malformations, mental retardation, impaired vision, and deafness.

Before becoming pregnant it is a good idea to find out whether you have been previously infected with *Toxoplasma gondii* by having an antibody test. If previously infected, your baby is not at risk from a new infection. It is important to remember that the only way to catch *Toxoplasma* in relation to your cat is from ingesting faeces exposed to air for greater than a day from a cat infected for the first time.



Toxoplasmosis and the Immunocompromised

Once inside the body, the *Toxoplasma* parasite never leaves it. Although in healthy people the parasite remains inactive, it can "reactivate" in immunocompromised people. There is no additional danger of transmission of the parasite from their cat. However, toxoplasmosis in the immunocompromised is a more serious disease, with the most common manifestation being encephalitis (inflammation of the brain).

What are the signs in animals?

When symptoms are apparent, they usually include vague signs like diarrhoea, weight loss, decreased appetite, depression and fever. Measurement of antibodies to *T. gondii* in the blood is the best method to diagnose toxoplasmosis. It may be a good idea to check for some viruses, since usually only immunocompromised cats will show signs of *Toxoplasma*. Cats with this disease can be cured with antibiotics

How can I prevent my pet from becoming infected?

- Keep cats indoors to prevent them from hunting and eating wild rodents and birds.
- Feed cats only commercially prepared food or well-cooked meat; never raw meat or raw meat products.
- Do not let your cat drink unpasteurised milk
- Faeces should be removed from the litter box daily and disposed of properly. Clean the litter boxes regularly with boiling or scalding water.

How can I prevent myself from becoming infected?

- Wash hands, cutting boards, sink tops, knives and other utensils thoroughly with soap and water after handling undercooked meat and before eating.
- Cook meat thoroughly to 151 degrees F (66 degrees C) for 20 minutes to destroy any parasites that might be present. Avoid tasting while cooking.
- Wash vegetables thoroughly before eating to remove soil that may be contaminated with cat faeces.
- Do not drink unpasteurised milk
- Dispose of cat litter every day before any eggs have time to become infective and sanitise litter boxes with boiling water. (Many disinfectants are ineffective against *T. gondii*.)
- Wear gloves while gardening, especially where cats may have defecated.