What is Toxoplasmosis?
A single-celled protozoan parasite called *Toxoplasma gondii* causes the disease known as toxoplasmosis. Toxoplasmosis is the 2nd leading cause of death from foodborne illness in the United States. More than 60 million men, women, and children in the US carry *Toxoplasma*. Most carriers of this parasite have a healthy immune system that keeps them illness free. For pregnant women and individuals with compromised immune systems, a *Toxoplasma* infection can cause serious health problems. In the US, *Toxoplasma* costs $2,900 million annually, causes 87,000 foodborne illnesses, 4,400 hospitalizations, and 327 deaths.

What are the symptoms of toxoplasmosis?
- Most people who become infected with *Toxoplasma gondii* have no symptoms. The incubation period for adults is 6-10 days.
- Some people who have toxoplasmosis may feel as if they have the “flu” with swollen lymph glands or muscle aches and pains that last for a month or more.
- Severe toxoplasmosis causes damage to the brain, eyes, and other organs. It can develop from an acute *Toxoplasma* infection or an infection that had occurred earlier in life and is now reactivated. Severe cases are more likely in individuals with weak immune systems. Occasionally, persons with healthy immune systems may experience eye damage from toxoplasmosis.
- Signs and symptoms of ocular (eye) toxoplasmosis can include reduced vision, blurred vision, pain (often with bright light), redness of the eye and sometimes tearing.

An ophthalmologist provides the best care for ocular toxoplasmosis.
- Infants who are infected while still in the womb usually have no symptoms at birth but may develop symptoms later in life. A few infected newborns have serious eye or brain damage at birth.

Who is at risk for developing severe toxoplasmosis?
- Infants born to mothers who become infected with *Toxoplasma gondii* during or just before pregnancy.
- Persons with severely weakened immune systems (HIV/AIDS), those taking chemotherapy, and those who have recently received an organ transplant.

Who has toxoplasmosis and how is it spread?
In the United States, 22.5% of the population 12 years and older are estimated to have been infected with *Toxoplasma*. Up to 95% of some populations in the tropics have been infected. The protozoan infects most species of warm-blooded animals, including humans. Domestic animals become infected by consuming contaminated food or water. Humans can become infected by:
- eating undercooked meat of animals harboring tissue cysts.
- consuming food or water contaminated with cat feces.
- handling feces-contaminated soil or changing the litter box of pet cats.
- blood transfusion or organ transplantation
- transplacental transmission from mother to fetus.
How can toxoplasmosis be prevented?

Practice safe food preparation by cooking food to safe temperatures. A food thermometer should be used to measure the internal temperature of cooked meat. Do not sample meat until it is thoroughly cooked. USDA recommends the following temperatures for meat preparation:

- **Whole cuts of meat** (excluding poultry) should be cooked to at least 145°F (63°C), as measured with a food thermometer placed in the thickest part of the meat. The meat should then be allowed to rest for three minutes before carving or consuming.

- **Ground meats** (excluding poultry) require an internal temperature of at least 160°F (71°C). Ground meats do not require a rest time.

- **All poultry** (whole cuts and ground) should be cooked to at least 165°F (74°C). For whole poultry allow the meat to rest for three minutes before carving or consuming.

Freezing meats for several days at sub-zero (0°F) temperatures before cooking will greatly reduce the chance of infection.

Don’t drink raw goats milk because infected goats may shed the parasite in milk.

Peel or wash fruits and vegetables thoroughly before eating.

Wash cutting boards, dishes, counters, utensils, and hands with hot soapy water after contact with raw meat, poultry, seafood, or unwashed fruits or vegetables.

Avoid drinking untreated drinking water.

Wear gloves when gardening and during any contact with soil or sand because it might be contaminated with cat feces that contains *Toxoplasma*. Wash hands with soap and warm water after gardening or contact with soil or sand. Teach children the importance of washing hands to prevent infection.

Keep outdoor sandboxes covered.

Feed cats only canned or dried commercial food or well-cooked table food, not raw or undercooked meats.

Change the litter box daily if you own a cat. The toxoplasma parasite does not become infectious until 1 to 5 days after it is shed in a cat’s feces. For people who are pregnant or immunocompromised, it is safe to keep a pet cat as long as these safety precautions are followed:

- Avoid changing cat litter if possible. If no one else can perform the task, wear disposable gloves and wash your hands with soap and warm water afterwards.

- Keep cats indoors.

- Do not adopt or handle stray cats, especially kittens.

- Do not get a new cat while you are pregnant.

What is the treatment for toxoplasmosis?

Most healthy, non-pregnant people recover from toxoplasmosis without treatment. Ill persons can be treated with a combination of drugs (pyrimethamine and sulfadiazine, plus folic acid). Pregnant women, newborns, and infants can be treated, although the parasite is not eliminated completely. The parasites can remain within tissue cells in a less active phase. Persons with ocular toxoplasmosis are sometimes prescribed medicine by their ophthalmologist to treat active disease. Medication may be recommended depending on the size of the eye lesion and the location and characteristics of the lesion (acute active, versus chronic non-progressing). Persons with compromised immune systems need to be treated until their condition improves. For AIDS patients, it may be necessary to continue medication for the rest of their lives or for as long as they are immunosuppressed.

Sources:


