

Toxoplasmosis

Toxoplasmosis is caused by infection with a parasite called *Toxoplasma gondii*. The parasite is found throughout the world, and more than 40 million people in the United States carry the toxoplasma parasite. Animals may also become infected, most notably cats.

Transmission

Anyone can become infected with toxoplasmosis. Toxoplasma infection occurs via:

- **Environment to person** through contaminated food or drinking water. Eating undercooked, contaminated meat, or drinking untreated water.
- **Animal to person.** Accidentally swallowing the parasite through contact with cat feces.
 - Touching your hands to your mouth after gardening, cleaning a cat's litter box, or touching anything that has contact with cat feces.
- **Person to person.** Via mother-to-child during pregnancy or if a mother is infected just before pregnancy, during an organ transplant, or rarely, blood transfusions.

Past infection usually gives long-term immunity.

Symptoms

Symptoms vary. Symptoms typically appear in seven days, with a range of four to 21 days. 50% of people with toxoplasmosis have no symptoms. Some people may experience:

- **"Flu" like feeling.**
- **Swollen lymph glands.**
- **Muscle aches and pains** that may last for a month or more.

Severe cases may include:

- **Damage to the brain, eyes, or other organs.** People who are most likely to develop severe toxoplasmosis include:
 - **Infants born to mothers who are newly infected** with toxoplasma during or just before pregnancy.
 - **Persons with severely weakened immune systems** (AIDS, chemotherapy, recently received an organ transplant).

Diagnosis

A health care provider can diagnose with laboratory tests and with clinical signs.

Prevention

- **Reduce risk from the environment:**
 - Wash your hands well with soap and water after outdoor activities or cleaning a cat's litter box.
 - Wear gloves when gardening or handling soil. Cats may use gardens as litter boxes.
 - **Change cat litter boxes daily.**
 - **Keep outdoor sandboxes covered.** Cats may use sandboxes as litter boxes.

- **Feed cats only canned, dried commercial food or well-cooked table food.**
- **Keep cats indoors to prevent them from hunting.**
- **Reduce [risk from food](#):**
 - **Cook meat to [recommended internal temperatures](#).**
 - **Use a food thermometer [correctly](#) to ensure foods are cooked.**
 - **Freeze meat** at subzero temps, this kills toxoplasmosis but not other parasites or bacteria.
 - **Rinse fresh fruits and vegetables** under running water.
 - **Wash your utensils, cutting boards, and countertops** with hot, soapy water.
 - **Do not eat raw or undercooked** oysters, mussels, or clams.
 - **Do not drink unpasteurized goat's milk.**

Treatment

Not all infections need to be treated, contact your health care provider to discuss if treatment is necessary.

Treatment is available for pregnant women or persons who have weakened immune systems.

For more information about the treatment of toxoplasmosis contact your health care provider or visit [CDC - Toxoplasmosis - General Information - Frequently Asked Questions \(FAQs\)](#).

Exclusion Guidance

Individuals with toxoplasmosis should not be excluded from work, school, or child care unless the [general exclusions apply](#).

For additional information about toxoplasmosis, contact North Dakota Health and Human Services' Division of Public Health at 800.427.2180.

Pregnancy and Toxoplasmosis

Toxoplasmosis is of special concern to pregnant women because the parasite can be transferred to a fetus. Most infants who are infected in the womb often have no symptoms, a small percent may have serious eye or brain damage at birth or develop symptoms later in life.

- **Treatment is available for pregnant women.** Discuss options with your health care provider.
- **Use precautions around cats.**
 - **Avoid changing cat litter.** If you must wear disposable gloves and wash your hands afterward.
 - **Do not adopt or handle stray cats,** especially kittens.
 - **Do not get a new cat while you are pregnant**

Resources:

1. Centers for Disease Control and Prevention. (2022, December 1). Parasites – Toxoplasmosis (Toxoplasmosis Infection). Centers for Disease Control and Prevention. Retrieved May 30th, 2023, https://www.cdc.gov/parasites/toxoplasmosis/gen_info/faqs.html
2. Kimberlin, D. W., Barnett, E. D., Lynfield, R., Sawyer, M. H. (2021) Red Book: 2021-2024 Report of the Committee on Infectious Diseases. 32nd ed. American Academy of Pediatrics. [Management and Prevention of Infectious Diseases; *Toxoplasma gondii* Infections (Toxoplasmosis)] [Pages 122-133; 767-775].
3. J. Jones, F. Meslin, and H. V. Nielsen, (2022, May 11). Control of Communicable Diseases Manual, 21st Edition. American Public Health Association. [TOXOPLASMOSIS] [Pages 643–664].

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