

**What is Toxoplasmosis?**

Toxoplasmosis is caused by infection with a parasite called *Toxoplasma gondii*. The parasite is found throughout the world, and more than 60 million people in the United States may be infected with the parasite. Other animals may also become infected, most notably cats.

**Who is at risk for Toxoplasmosis?**

Anyone can become infected with the parasite. People with an infected cat are more likely to become exposed to parasite, thus increasing their chance of becoming infected.

**What are the symptoms of Toxoplasmosis?**

Symptoms will vary. Most people who become infected are not aware of it. However, some people who have toxoplasmosis may have swollen lymph glands or muscle aches and pains that may last for a month or more.

Some people develop severe toxoplasmosis infection which can cause damage to the brain, eyes or other organs. This severe infection can develop from current infection or an infection that occurred earlier in life and is now reactivated. Severe cases are more likely to happen in individuals who have weak immune systems, but occasionally, even persons with healthy immune systems may experience eye damage from toxoplasmosis.

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

**How soon do symptoms appear?**

Symptoms are estimated to take about seven days to appear, with a range of four to 21 days.

**How is Toxoplasmosis spread?**

Toxoplasma infection occurs by:

- Accidentally swallowing cat feces from a Toxoplasma-infected cat that is shedding the organism in its feces. This might happen if you were to accidentally touch your hands to your mouth after gardening, cleaning a cat's litter box or touching anything that has come into contact with cat feces.
- Eating contaminated raw or partly cooked meat, especially pork, lamb, or venison; by touching your hands to your mouth after handling undercooked meat.
- Contaminating food with knives, utensils, cutting boards and other foods that have had contact with raw meat.
- Drinking water contaminated with Toxoplasma.
- Receiving an infected organ transplant or blood transfusion, though this is rare.

**When and for how long is a person able to spread the disease?**

People cannot spread the illness directly to another individual except in utero.

## How is a person diagnosed?

Laboratory tests are the primary means of diagnosis along with clinical signs.

## What is the treatment?

Not all infections need to be treated, so you and your health care provider can discuss whether treatment is necessary. If symptoms occur, they typically go away within a few weeks to months. For pregnant women or persons who have weakened immune systems, medications are available to treat toxoplasmosis.

## Does past infection make a person immune?

Past infection usually confers long-term immunity.

## Should children or others be excluded from day care, school, work or other activities if they have Toxoplasmosis?

No. Infants, toddlers and school-aged children should not be excluded unless the staff determines the child is unwilling or unable to participate in activities. They also should be excluded if the staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.

All others can attend work and other functions as long as they are well enough to do so.

## What can be done to prevent the spread of Toxoplasmosis disease?

There are several general sanitation and food safety steps you can take to reduce your chances of becoming infected with Toxoplasma.

- Wear gloves when you garden or do anything outdoors that involves handling soil. Cats, which may pass the parasite in their feces, often use gardens and sandboxes as litter boxes. Wash your hands well with soap and water after outdoor activities, especially before you eat or prepare any food.
- When preparing raw meat, wash any cutting boards, sinks, knives, and other utensils that might have touched the raw meat thoroughly with soap and hot water to avoid cross-contaminating other foods. Wash your hands well with soap and water after handling raw meat.
- Cook all meat thoroughly; that is, to an internal temperature of 160° F and until it is no longer pink in the center or until the juices become colorless. Do not taste meat before it is fully cooked.

## Additional Information:

Is available by calling the North Dakota Department of Health at 800.472.2180.

Resources:

Resources:

1. American Academy of Pediatrics. [Children in Out-Of-Home Care]. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30<sup>th</sup> ed. Elk Grove Village, IL: American Academy of Pediatrics; 2015: 132-151.
2. American Academy of Pediatrics. [*Toxoplasma gondii* Infections]. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30<sup>th</sup> ed. Elk Grove Village, IL: American Academy of Pediatrics; 2015: 787-796.
3. Centers for Disease Control and Prevention. (2013). Parasites - Toxoplasmosis (*Toxoplasma* infection) [www.cdc.gov/parasites/toxoplasmosis/](http://www.cdc.gov/parasites/toxoplasmosis/)
4. Control of Communicable Disease Manual, 20th Edition-2015, Heymann, David, MD ed.