



Toxoplasma Infection

Toxoplasmosis (TOX-o-plaz-MO-sis)

What is toxoplasmosis?

A single-celled parasite called *Toxoplasma gondii* causes a disease known as toxoplasmosis. While the parasite is found throughout the world, more than 60 million people in the United States may be infected with the *Toxoplasma* parasite. Of those who are infected, very few have symptoms because a healthy person's immune system usually keeps the parasite from causing illness. However, pregnant women and individuals who have compromised immune systems should be cautious; for them, a *Toxoplasma* infection could cause serious health problems.

How do people get toxoplasmosis?

A *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 gondii*.
- Receiving an infected organ transplant or infected blood via transfusion, though this is rare.

What are the signs and symptoms of toxoplasmosis?

Symptoms of the infection vary.

- Most people who become infected with *Toxoplasma* are not aware of it.
- 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, causing damage to the brain, eyes, or other organs, can develop from an acute *Toxoplasma* infection or one that had occurred earlier in life and is now reactivated. Severe cases are more likely in individuals who have weak immune systems, though occasionally, even persons with healthy immune systems may experience eye damage from toxoplasmosis.
- Most infants who are infected while still in the womb have no symptoms at birth, but they may develop symptoms later in life. A small percentage of infected newborns have serious eye or brain damage at birth.

Who is at risk for developing severe toxoplasmosis?

People who are most likely to develop severe toxoplasmosis include:

- Infants born to mothers who became infected with *Toxoplasma* for the first time during or just before pregnancy.
- Persons with severely weakened immune systems, such as individuals with HIV/AIDS, those taking certain types of chemotherapy, and those who have recently received an organ transplant.

What should I do if I think I am at risk for severe toxoplasmosis?

If you are planning to become pregnant, your health care provider may test you for *Toxoplasma*. If the test is positive it means you have already been infected sometime in your life. There usually is little need to worry about passing the infection to your baby. If the test is negative, take necessary precautions to avoid infection (See below).

If you are already pregnant, you and your health care provider should discuss your risk for toxoplasmosis. Your health care provider may order a blood sample for testing.

If you have a weakened immune system, ask your doctor about having your blood tested for *Toxoplasma*. If your test is positive, your doctor can tell you if and when you need to take medicine to prevent the infection from reactivating. If your test is negative, it means you have never been infected and you need to take precautions to avoid infection. (See below).

What should I do if I think I may have toxoplasmosis?

If you suspect that you may have toxoplasmosis, talk to your health care provider. Your provider may order one or more varieties of blood tests specific for toxoplasmosis. The results from the different tests can help your provider determine if you have a *Toxoplasma* infection and whether it is a recent (acute) infection.

What is the treatment for toxoplasmosis?

Once a diagnosis of toxoplasmosis is confirmed, you and your health care provider can discuss whether treatment is necessary. In an otherwise healthy person who is not pregnant, treatment usually is not needed. 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.

How can I prevent toxoplasmosis?

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 gully cooked.

For further information on safe food handling to help reduce food borne illness visit the Fight BAC!® Web site at <http://www.fightbac.org/main.cfm>.

If I am at risk, can I keep my cat?

Yes, you may keep your cat if you are a person at risk for a severe infection (e.g., you have a weakened immune system or are pregnant); however, there are several safety precautions to avoid being exposed to *Toxoplasma gondii* :

- Keep your cat healthy and help prevent it from becoming infected with *Toxoplasma*. You're your cat indoors and feed it dry or canned cat food rather than allowing it to have access to wild birds and rodents or to food scraps. A cat can become infected by eating infected prey or by eating raw or undercooked meat infected with the parasite.
- Do not bring a new cat into your house that might have spent time out of doors or might have been fed raw meat. Avoid stray cats and kittens and the area they have adopted as their "home." Your veterinarian can answer any other questions you may have regarding your cat and risk for toxoplasmosis.
- Have someone who is healthy and not pregnant change your cat's litter box daily. If this is not possible, wear gloves and clean the litter box every day, because the parasite found in cat feces needs one or more days after being passed to become infectious. Wash your hands well with soap and water afterwards.

Once infected with *Toxoplasma* is my cat always able to spread the infection to me?

No, cats only spread *Toxoplasma* in their feces for a few weeks following infection with the parasite. Like humans, cats rarely have symptoms when first infected, so most people do not know if their cat has been infected. The infection will go away on its own; therefore it does not help to have your cat or your cat's feces tested for *Toxoplasma*.

