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## Toxoplasmosis

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### Summary

- People become infected with *Toxoplasma gondii* parasites through contact with infected animal faeces (usually cat faeces).
  - A healthy person does not require treatment for toxoplasmosis, as symptoms are mild and usually disappear within a few weeks.
  - Pregnant women and people who have compromised immune systems should take precautions against toxoplasmosis.
  - A pregnant woman is advised to avoid contact with cats, as her unborn child is at increased risk of birth defects if parasites cross the placenta.
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Toxoplasmosis is an infection caused by a parasite known as *Toxoplasma gondii* (*T. gondii*). This single-celled organism is commonly found throughout the world and tends to infect birds and mammals. The parasite forms egg-like structures called oocysts. These must be ingested by mouth, which means the infection cannot be transferred from person to person.

Humans become infected with the toxoplasmosis parasite through contact with infected animal faeces (poo). Cats are the main hosts. They acquire *T. gondii* from eating infected rodents or birds and then may pass the infection to their human handlers.

Another way of catching this infection is touching or eating raw or undercooked lamb, pork or kangaroo meat. The parasites can be stored in small pockets (cysts) in the muscle tissue of these meats. Drinking contaminated unpasteurised milk can also cause infection with toxoplasmosis parasites.

### Symptoms of toxoplasmosis

In most cases of animal and human infection, toxoplasmosis does not cause any symptoms. The only evidence of infection is detection of antibodies in the blood against the toxoplasmosis parasite.

Symptoms, if they do occur, include:

- Swollen lymph glands, especially around the neck
- Muscle aches and pains
- Headache
- Fever
- Generally feeling unwell
- Inflammation of the lungs
- Inflammation of the heart muscle
- Inflammation of the eye, for example, the retina (at the back of the eye).

### Duration of infection with *T. gondii*

The toxoplasmosis parasite can cause a long-term infection. Following infection, a small number of parasites can remain locked inside cysts within certain parts of the body, such as the brain, lungs and muscle tissue.

Under normal circumstances, the immune system will easily destroy any parasites that escape these cysts, but a person with lowered immunity may not be able to fend off an attack. The parasites can greatly increase in number and cause a variety of serious illnesses, including infection of the brain.

## Effects of toxoplasmosis on unborn babies

If newborn babies are infected, at worst, they will only suffer from mild illness. However, toxoplasmosis in pregnancy can expose babies in the womb to the parasite and this is potentially more serious. If a woman contracts toxoplasmosis for the first time while pregnant, the parasites may affect the baby through the placenta.

Most unborn babies aren't affected at all, but a minority may be harmed by infection. Effects of toxoplasmosis on unborn babies can include:

- Skin rashes
- Nervous system damage
- Mental retardation
- Cerebral calcification (hardening of brain tissue)
- Liver damage
- Eye problems
- Fetal death (in rare cases).

## Precautions against toxoplasmosis

Pregnant women and people who have compromised immune systems should take precautions against toxoplasmosis. If a woman is infected before she becomes pregnant, then her immune system will attack the parasite and make it harmless. Problems only occur if a woman becomes infected for the first time while pregnant.

A pregnant woman and people with compromised immune systems can take simple precautions to reduce the risk of infection with the parasite. These include:

- Wash hands after handling raw meat.
- Cook meat (including kangaroo meat) thoroughly until the juices run clear.
- Do not eat rare or medium-rare meat dishes.
- Wash vegetables to remove any traces of soil.
- Wash hands thoroughly before eating.
- Immediately wash cutting boards, knives and any other implements that have come into contact with raw meat.
- Wear gloves while gardening.
- Avoid contact with cats.
- Get someone else to handle litter trays.
- Make sure litter trays are cleaned daily.

## Toxoplasmosis in cats and sandpits

The infectious oocysts are robust and hardy. They can survive in water, soil or sand for around 12 months. Young children who play in sandpits and gardens may be at risk if they come into contact with infected cat faeces.

Precautions include:

- Make sure your child's sandpit can be covered when not in use.
- Discourage stray cats from your property.
- Ask your child to always wash their hands thoroughly before eating.

## Precautions against toxoplasmosis for your household cat

Cats are only infectious for a few weeks after ingesting the parasites and kittens are more likely to pass on the infection than older cats. Suggestions on reducing the risk of infection in your cat include:

- Keep your cat indoors whenever possible.
- Don't allow the cat to hunt and eat birds or other wildlife.
- Feed your cat canned or dry foods, instead of raw meat (including kangaroo meat).

## Treatment for toxoplasmosis

Treatment of toxoplasmosis is often unnecessary. The infection is diagnosed with a simple blood test that checks for the presence of specific antibodies. A healthy person who is not pregnant and becomes infected does not require treatment. Symptoms, if any, are usually mild and disappear after a few weeks.

For pregnant women and those with compromised immune systems, such as those in the later stages of human immunodeficiency virus infection/acquired immunodeficiency syndrome (HIV/AIDS), medications including antibiotics may be prescribed.

### Where to get help

- Your doctor

### Things to remember

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### This page has been produced in consultation with and approved by:

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