

Toxoplasmosis

Toxoplasmosis is a disease caused by a parasite called *Toxoplasma gondii* (*T.gondii*). This parasite occurs commonly throughout the world and infects birds and mammals, including humans.

Following recovery from toxoplasmosis infection, a few parasites can remain in tiny cysts in the muscles, brain, lungs, or other organs.

Infected cats carry *T. gondii* for a short time in their intestinal tract and during this time, for up to 20 days, the cat sheds the parasite in their faeces. Cats are therefore a very common source of infection. *T. gondii* can survive in water or moist soil for over a year.

Signs and Symptoms:

It can take anywhere between 5 – 20 days after exposure to *T. gondii* before a person becomes unwell.

A healthy person who becomes infected with toxoplasmosis will generally either not get sick at all or have a very mild illness. In people who do become sick, swollen lymph glands (especially around the neck), muscle aches, fever and headache are the most common symptoms and the person will get better within days to a few weeks.

People with a very weak immune system - for example those with HIV/AIDS or undergoing chemotherapy - who become infected with *Toxoplasma* may experience more severe symptoms such as pneumonia, inflammation of the heart muscle or brain and even death.

A healthy immune system will be able to prevent a second infection. However people with conditions affecting their immune systems may suffer from severe illness as a result of *T. gondii* parasites being released from cysts remaining in the body after the first infection.

Most newborn babies and most unborn babies will have mild or no symptoms if they are infected.

A very small number of unborn babies whose mothers are infectious with *Toxoplasma* (particularly if it is a first infection during the early stages of the pregnancy) develop a serious illness with symptoms including skin rashes, nervous system and brain damage, mental retardation, liver damage, eye problems and rarely, death.

Blood tests for antibodies against toxoplasmosis can assist in determining if a person is currently infected or has previously been infected with *Toxoplasma*. Results of the blood tests will be interpreted within the clinical context.

Treatment:

A person who is generally healthy will usually not need treatment for toxoplasmosis as long as their symptoms are mild. People who have severe disease or pregnant women may be treated with antibiotics. Antibiotics may also be recommended for babies whose mother developed toxoplasmosis during pregnancy.

Transmission:

Human infection occurs when the parasite is swallowed. This can be from eating poorly cooked food, unpasteurised milk or untreated water contaminated with toxoplasma cysts.

People may also become infected by swallowing cysts picked up from unwashed hands contaminated during gardening or playing in sandpits contaminated with cat faeces; or when cleaning cat litter trays.

Toxoplasmosis is not transmitted from person to person except from an infectious mother to her unborn baby. In rare cases, toxoplasmosis has occurred as a result of organ transplant or blood transfusion from an infectious person.

Prevention:

Simple hygiene measures can reduce the chance of a person catching toxoplasmosis.

- Wash hands thoroughly before eating or putting hands near the mouth; and after handling raw meat, or contact with soil possibly contaminated with cat faeces.
- Wash all food preparation areas and utensils after contact with raw meat, before using them for another food.
- Avoid drinking untreated water.
- Cover sandpits used by children for play when not in use.

People with weakened immune systems and pregnant women should ALWAYS:

- Ensure any meat they eat is well cooked; or frozen at -20°C for at least 24 hours before eating.
- Carefully wash or peel raw fruit and vegetables before eating.
- Avoid changing cat litter. If this is not possible use gloves and wash hands with warm water and soap afterwards.

People with very weak immune systems may be advised to take regular antibiotic medication to prevent infection.

If a person with toxoplasmosis is well enough in themselves to attend, there is no need for exclusion from work, school or child care.

Help and assistance:

For further information, please contact your local doctor, community health centre or nearest [public health unit](http://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units/default.asp) (<http://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units/default.asp>) or call **13 HEALTH (13 43 25 84)** 24 hours a day 7 days a week for the cost of a local call.

Other resources

[Handy facts about hygiene brochure](https://www.health.qld.gov.au/__data/assets/pdf_file/0020/444314/handwash-6steps.pdf)

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[Staying Healthy: Preventing infectious diseases in early childhood education and care services](https://www.nhmrc.gov.au/guidelines-publications/ch55%20)

(<https://www.nhmrc.gov.au/guidelines-publications/ch55%20>) (5th Edition)

References

Heymann, D. (2015). Control of Communicable Diseases Manual. (20th edition). Washington, DC: American Public Health Association, pp.614-617.