

Toxoplasmosis - reducing the risks

Toxoplasmosis is an infection caused by a parasite known as *Toxoplasma gondii*. This single-celled organism is commonly found throughout the world and tends to infect birds and mammals. The parasitic eggs (oocysts) must be ingested by mouth, which means the infection is not contagious from person to person.

Humans become infected with toxoplasma via contact with infected animal faeces (poo). Cats are the main hosts – they acquire the parasite from eating infected rodents or birds and, in turn, pass the infection to their human handlers.

Another mode of transmission is touching or eating raw or undercooked lamb or pork, since the parasites can be stored in small pockets (cysts) within the muscle tissue. Consumption of contaminated unpasteurised milk can also cause infection with toxoplasmosis.

Toxoplasmosis is sometimes asymptomatic

In most cases of animal and human infection, toxoplasmosis does not cause any symptoms and the only evidence of infection are detectable antibodies to toxoplasmosis in the person's blood. 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
- Eye involvement, for example, inflammation of the retina.

Infection can be long term

Following infection, a small number of parasites can remain locked inside cysts within certain areas, such as the brain, lungs and muscle tissue. Under normal circumstances, the immune system will easily dispatch any escapee parasites. However, a person with compromised immunity may not be able to fend off an attack. The parasites can reach high numbers and cause a variety of serious illnesses, including infection of the brain.

Unborn babies are at increased risk

At worst, a newborn baby will only incur a mild illness if they are infected. However, exposure in the womb is potentially more serious. If a woman contracts toxoplasmosis for the first time while pregnant, the parasites may affect the baby via 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 for pregnant women and immune-compromised people

If a woman was infected before she conceived, then her immune system would have rendered the parasite harmless. Problems only occur if a woman becomes infected for the first time while pregnant.

A pregnant woman and immune-compromised people can take simple precautionary measures to reduce the risk of toxoplasma infection, including:

- Wash hands after handling raw meat.
- Cook 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 the litter trays are cleaned daily.

Cats and sandpits

The parasite eggs, or 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 in 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 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.

Treatment is often unnecessary

The infection is diagnosed with a simple blood test that checks for the presence of specific antibodies. A healthy, non-pregnant person who becomes infected does not require treatment. Symptoms, if any, are usually mild and resolve after a few weeks. In the case of pregnant women and those with compromised-immune systems, such as individuals in the later stages of HIV/AIDS, medications including antibiotics may be prescribed.

Where to get help

- Your doctor.

Things to remember

- People become infected with *Toxoplasma gondii* parasites through contact with infected animal faeces, usually cat faeces.

- A healthy person does not require treatment, as symptoms are mild and usually resolve within a few weeks.
- A pregnant woman is advised to avoid contact with cats, as her unborn child is at increased risk of birth defects should parasites cross the placenta.

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

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