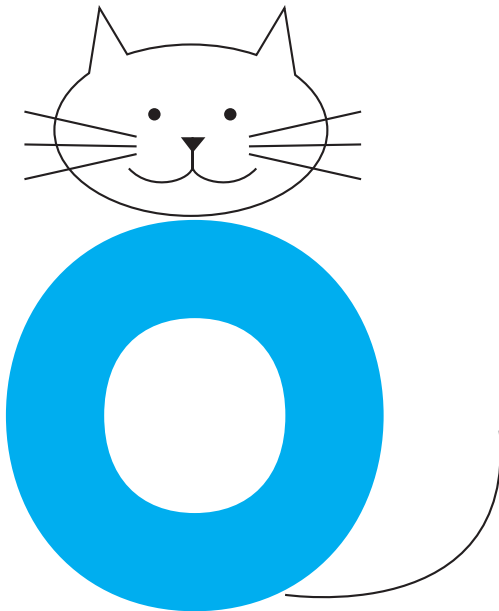


Toxoplasmosis

and animals



About Tommy's, the baby charity

Tommy's was set up in 1992 to make pregnancy and childbirth safer for both the expectant mother and her child by funding a national programme of medical research into miscarriage, stillbirth and premature birth.

Since the charity was founded in 1992, we have set up centres for maternal and fetal health research in London and Manchester, and funded more than 57 research projects in hospitals and universities across the UK.

Tommy's aims to see the number of baby deaths halved by 2030 but we cannot achieve this aim without increasing our support for the doctors and scientists who are discovering how to protect mothers and babies at risk.

Every parent-to-be hopes that their baby will be born healthy but every year in the UK one in four women and their partners will experience the trauma of miscarriage and around 4,000 babies will be stillborn. More than 100 babies are born too small or too soon every day and two per cent are severely premature, arriving six weeks before their expected birthday. Prematurity is the most common cause of baby death and one in 10 premature babies will develop a permanent disability.

As the UK's leading baby charity we want to find the answers for parents who deserve to know why their baby died or had to fight for life after being born prematurely.

Tommy's is determined to find out the causes of miscarriage, stillbirth and premature birth and to save tiny lives by discovering new ways to encourage healthy pregnancy and prevent problems. We support a nationwide programme of vital research and are already improving the chances of survival of hundreds of babies through our clinical trials. We are examining the processes underlying normal and premature labour, and finding ways to identify women who are most at risk of giving birth prematurely. We are increasing understanding of conditions such as pre-eclampsia which endanger both mother and baby and are making progress in discovering ways to prevent health problems in premature and low birth-weight babies.

Tommy's also provides information about pregnancy health issues for health professionals, parents and parents-to-be. We aim to ensure that information on health in pregnancy and reducing the risks of problems is available to all parents-to-be in the UK, thereby reducing the number of babies' lives lost.

What is toxoplasmosis?

Toxoplasmosis is an infection caused by the parasite *Toxoplasma gondii*, a microscopic single cell organism that can be found in meat, cat faeces, the soil where cats defecate, and unpasteurised goats milk. The parasite can infect most birds and warm-blooded animals, including humans.

Cats are the only animals that can have infected faeces. The organism completes its sexual cycle in the gut of members of the cat family.

Following infection through eating birds, mice or other raw meat, a cat can shed infectious faeces for about 14 days and will not normally be a source of infection again. Sick cats may re-shed infected faeces.

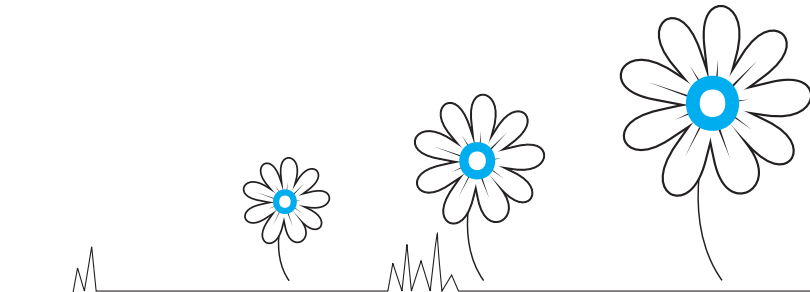
How do animals catch toxoplasmosis?

Toxoplasmosis is caught by swallowing anything infected or contaminated with the parasite. Soil where cats have defecated may remain infectious for up to 18 months, so farm animals can become infected with toxoplasmosis through grazing on contaminated land or eating feed contaminated by cats.

Cats can catch toxoplasmosis from eating an infected animal (e.g. a mouse or a bird) or from being fed raw meat. Kittens are sometimes born with the infection and can also shed infected faeces. Domestic cats should not be fed raw meat.

An infection in cats usually occurs after eating rodents and birds, feral and farm cats can be a significant source of infection.

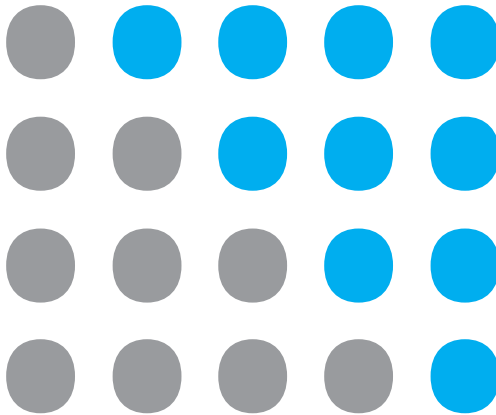
Sheep catch toxoplasmosis when they eat feed or bedding material contaminated with infected cat faeces.



How does toxoplasmosis affect animals?

About 50% of cats are thought to have toxoplasmosis at some time in their lives but only about 2% will be shedding the parasite at any time. A healthy adult cat is unlikely to be a source of infection.

Infection in sheep in early pregnancy invariably results in fetal death. Infection later in pregnancy typically causes a live infected lamb to be born. Non-pregnant sheep that have been infected with toxoplasmosis develop a life-long immunity and are then not at risk of aborting due to toxoplasmosis. The toxoplasma infection remains in the muscles of a previously infected sheep as microscopic tissue cysts. The meat from sheep and other animals, e.g. pigs, is then a risk to humans if eaten undercooked. A live vaccine, Toxovax, has been developed for sheep. Pregnant women should not handle either the vaccine or the recently vaccinated sheep.



How do humans catch toxoplasmosis?

Humans can catch toxoplasmosis by accidentally swallowing the organism *T. gondii* when handling a lambing ewe, newborn lamb or the afterbirth. It is also possible to catch toxoplasmosis from the contaminated hair or clothes of another person involved in lambing or through cuts on chapped hands.

Toxoplasma has been detected in goats milk, so unpasteurised goats milk and products are a possible, although rare, source.

Human infection can also occur through eating the raw or undercooked meat of an infected animal (thorough cooking destroys the organism as does freezing to -22°C), or accidentally swallowing soil, or eating unwashed, uncooked fruit or vegetables. Undercooked meat has been shown to be a significant source of human infection.

thorough cooking destroys the organism as does freezing to -22°C

One person cannot catch toxoplasmosis from another, except when a pregnant woman passes it on to her unborn baby.

Toxoplasmosis is a significant cause of abortion in sheep and there is a risk of catching toxoplasmosis from lambing or handling newborn lambs.

It is unlikely that a person would catch toxoplasmosis from a cat scratch or bite.

A person must actually swallow the organism to catch the infection.



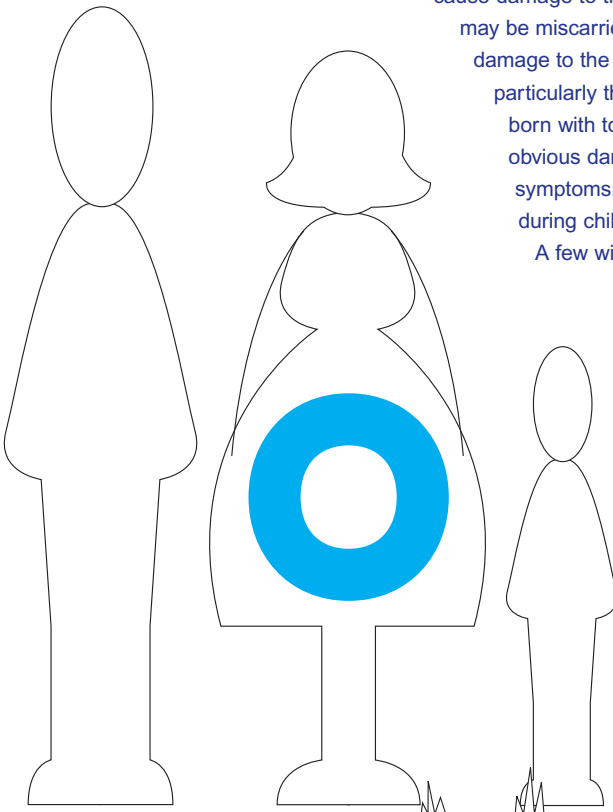
How toxoplasmosis affects health in humans?

Toxoplasmosis does not usually cause any symptoms and in most cases a person does not realise they have caught the infection. It can cause symptoms like 'flu or in severe cases an unpleasant illness similar to glandular fever.

Toxoplasmosis is most dangerous to humans if their immune system is underdeveloped or compromised, as in the case of an unborn baby, somebody with HIV/AIDS or on immuno-suppressant drugs. In such cases, the immune system is unable to restrict the spread of the parasite, which can then cause damage.

If toxoplasmosis is caught during pregnancy it can cause damage to the unborn baby. A baby may be miscarried, stillborn, or born with damage to the brain and other organs, particularly the eyes. Most babies born with toxoplasmosis have no obvious damage at birth but develop symptoms, usually eye damage, during childhood or even adulthood.

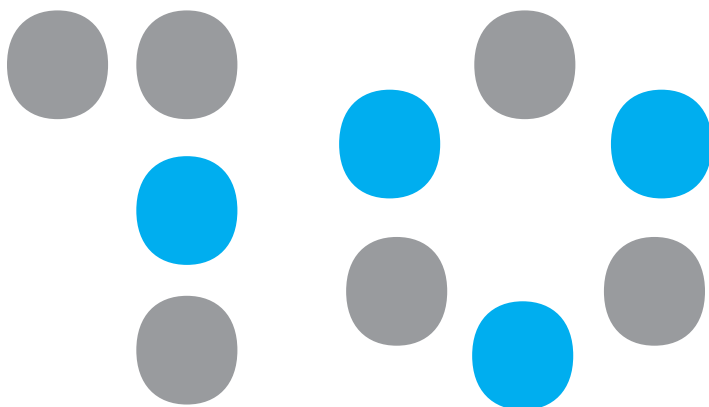
A few will have more serious symptoms such as blindness and brain damage.



Why is this important to humans?

There is a risk to an unborn baby from an infection caught either during pregnancy or within 2–3 months before conception.

If a woman catches toxoplasmosis for the first time during pregnancy, it does not mean that the child will definitely be infected.



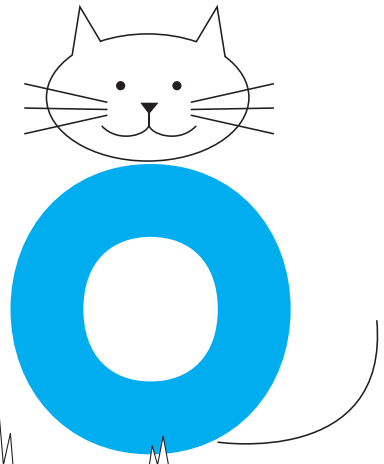
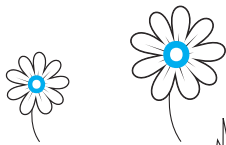
On average, only 4 in 10 of these infections will pass onto the unborn baby.



Prevention of toxoplasmosis

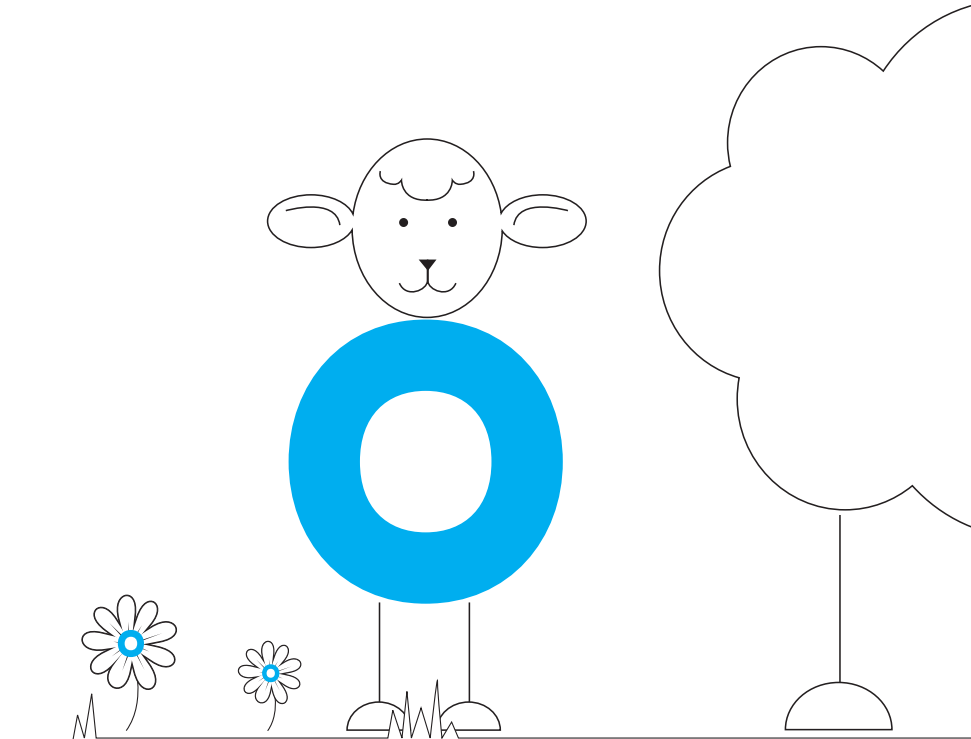
The following precautions help to reduce the risk of catching toxoplasmosis from animals:

- take care with hygiene when handling dirty cat litter
 - empty litter trays daily and sterilise the litter tray after emptying by filling it with boiling water for 5 minutes
 - wear rubber gloves and wash hands and gloves afterwards
 - if possible, get someone else to do the job of clearing out the litter
- cover children's outdoor sandboxes to prevent cats from using them as litter boxes
- if your cat is in poor health (e.g. has feline AIDS) consult your vet
- do not handle lambing ewes and do not bring lambs in to the house
- make sure that partners attending lambing ewes observe full hygiene procedures:
 - shower, bath or wash thoroughly (including hair) after handling a lambing ewe
 - launder clothes separately. Pregnant women should not handle dirty overalls worn during lambing
 - scrub hands, and keep fingernails short and clean



The following precautions help to reduce the risk of catching toxoplasmosis from other sources:

- only eat meat which has been thoroughly cooked (i.e. with no trace of blood or pinkness)
- avoid raw cured meat, such as Parma ham
- wash hands, chopping boards, and utensils thoroughly after preparing raw meat
- wash all fruit and vegetables thoroughly
- don't drink unpasteurised goats milk or eat dairy products made from it
- wear gloves when gardening and wash hands and gloves afterwards



Other environments which might be a risk for catching toxoplasmosis

If you have to attend ewes that are lambing, wearing protective clothing and masks will help to prevent infection, but there is still a potential risk to the health of the unborn baby. It is important to cover cuts on hands and forearms completely.

It is wise to leave the rearing of orphan lambs to others, but if you have no alternative then you should be scrupulous about hygiene when handling the lamb.

There is no risk from being in a field or pen with lambs and toxoplasmosis cannot be caught from sheep droppings. There is a potential risk for catching toxoplasmosis from handling a newborn lamb so it is best to stay out of lambing sheds when pregnant.

Wild (feral) cats and farm cats are more likely to be infected as they are persistent hunters and often in poor condition. If wild cats are using a stable or barn, the hay and straw may be infected and it would be best to avoid cleaning an environment like this if you are pregnant.

If you are looking after cats in a cat rescue centre, sensible hygiene precautions should be taken to avoid any risk of catching the infection. Wear gloves to handle cats, let someone else clean up any mess and do not clean out pens with a high-pressure hose (because the spray might enter your mouth). If you work in a cat rescue centre, a blood test before you think about trying to get pregnant, or as soon as you know you are pregnant, could be helpful.

For further information or if a routine test is appropriate to determine your immunity, please consult your GP or local Veterinary Investigation Centre who will be able to advise you on what action you should now take.

If you have concerns about your pets during your pregnancy, please telephone the RSPCA Enquiries Department on 0870 3335 999 (calls will be charged at the national rate).

For more information contact:

Tommy's, the baby charity

1 Kennington Road, London SE1 7RR

Tel: 020 7620 0188, Fax: 020 7928 6628

Website: www.tommys.org, E-mail: mailbox@tommys.org

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Make a Gift today, and help Tommy's, the baby charity, save tiny lives.

Our aim is to prevent the loss of babies' lives through miscarriage, stillbirth and premature birth. As well as providing information to parents-to-be, we also fund a nationwide programme of medical research to discover what causes problems in pregnancy and find out how to prevent them.

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Further information & publications

Tommy's, the baby charity, publishes information for parents-to-be and for those who have experienced miscarriage, stillbirth or premature birth, as well as providing information on toxoplasmosis. Please indicate below if you would like to be sent further information.

Toxoplasmosis and pregnancy: everything you need to know

General information about toxoplasmosis

Toxoplasmosis and animals

A leaflet for pet owners and farmers about the risks of toxoplasmosis

Toxoplasmosis and pregnancy

Information for parents-to-be who are worried about toxoplasmosis

Healthy Pregnancy leaflet

Ten top tips on getting the best chance of a healthy pregnancy

Healthy Eating leaflet

A guide for mums-to-be on what to eat and what to avoid

Information on miscarriage

Information on stillbirth

Information on premature birth

Annual review

Details about the charity, its fundraising, research and information programme

Research update

An outline of our current research projects

Information on ways to donate regularly to Tommy's

Fundraising information

If you have an idea for a fundraising event/sponsored activity and would like to discuss this with a member of the Community Fundraising team

If you would like to know more about Tommy's annual events for young children.

Please ensure that you have completed your address details on the form opposite.

Re-ordering

To order further copies of Tommy's leaflets, please use the form below and return it to Tommy's, the baby charity, 1 Kennington Road, London SE1 7RR, or contact Tommy's directly on 020 7620 0188, e-mail: info@tommys.org

Toxoplasmosis and pregnancy: everything you need to know

Toxoplasmosis and animals

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