

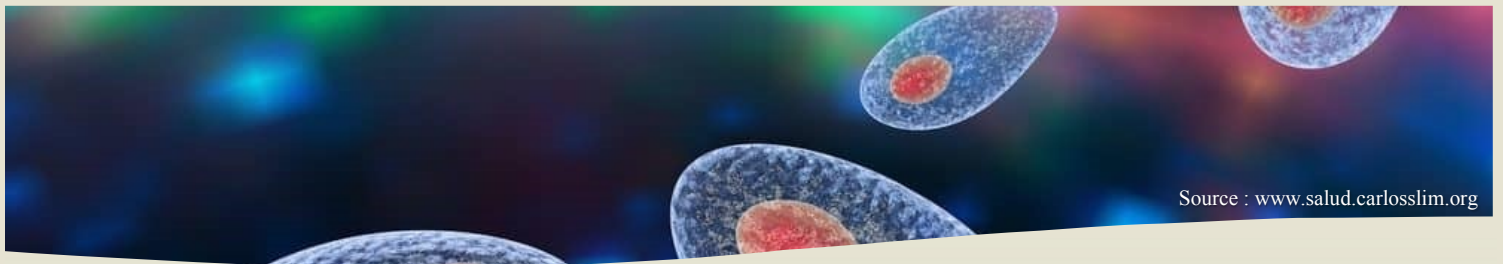
## ABORTION SHEET

# TOXOPLASMOSIS

•• Sheep and goats



www.cepoq.com



Source : www.salud.carlosslim.org

**TOXOPLASMOSIS IS A PARASITIC DISEASE THAT CAN CAUSE ABORTIONS IN SMALL RUMINANTS.  
CATS REPRESENT A SIGNIFICANT RISK.**

### AGENT INVOLVED ••

**Toxoplasmosis is caused by a protozoa called *Toxoplasma gondii*. It is a microscopic parasite that can survive in the environment for a very long time. Disinfectants are not effective in destroying this parasite eggs (oocysts) present in the environment.**

### CLINICAL SIGNS ••

Sheep and goats are intermediate hosts of *Toxoplasma*, resulting in the development of tissue cysts in their muscles. After ingestion of the oocysts, the parasites spread via the bloodstream to the lymphatic nodes where they will replicate within the sheep or goat. If a ewe or doe is pregnant, the parasites will lodge themselves in the placenta and induce a serious infection that can spread to the fetus and cause abortion. Otherwise they can lodge themselves in muscle tissue and become encysted.



### WATCH OUT FOR CATS !

An infected cat that excretes *Toxoplasma gondii* can contaminate the food and the environment of up to 200 farm animals. Kittens are most likely to be excretors.

### THE CAT : PRINCIPAL HOST OF FARMS ••

Only cats can complete a whole cycle and excrete *T. gondii* eggs into the environment. Infection in this species is mostly asymptomatic, making it difficult to screen infectious individuals. Since cats can become infected by eating rodents or raw meat, it is important to feed them well so that they do not hunt, to dispose of dead animal carcasses and to remove placentas and aborted fetus properly! Cats alone cannot control vermin on a farm.

### TRANSMISSION ••

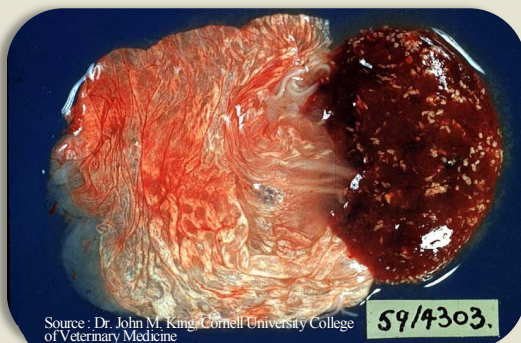
Small ruminants become infected mainly through the ingestion of oocysts. Recently infected cats can pass millions of oocysts in their stools within a few days, even if the contagious phase lasts only a short period of time. They can easily contaminate feed in feeders or in storage, drinking water and bedding.

**INFECTION BEFORE 40 DAYS OF GESTATION :**  
**resorption of embryos**

**INFECTION BETWEEN 40 AND 120 DAYS :**  
**mummification, maceration and abortion**

**INFECTION AFTER 120 DAYS :**  
**premature births, stillbirths and weak newborns**

**THE INFECTED FEMALE DEVELOPS ANTIBODIES THAT PROTECT HER THROUGH THE REST OF HER LIFE. THUS, IN THEORY, A SHEEP/GOAT THAT GETS INFECTED WHILE IT IS NOT PREGNANT WILL BE IMMUNIZED WITHOUT FURTHER COMPLICATIONS; AND A SHEEP/GOAT WILL HAVE ONLY ONE ABORTION CAUSED BY TOXOPLASMOSIS IN ITS LIFETIME!**



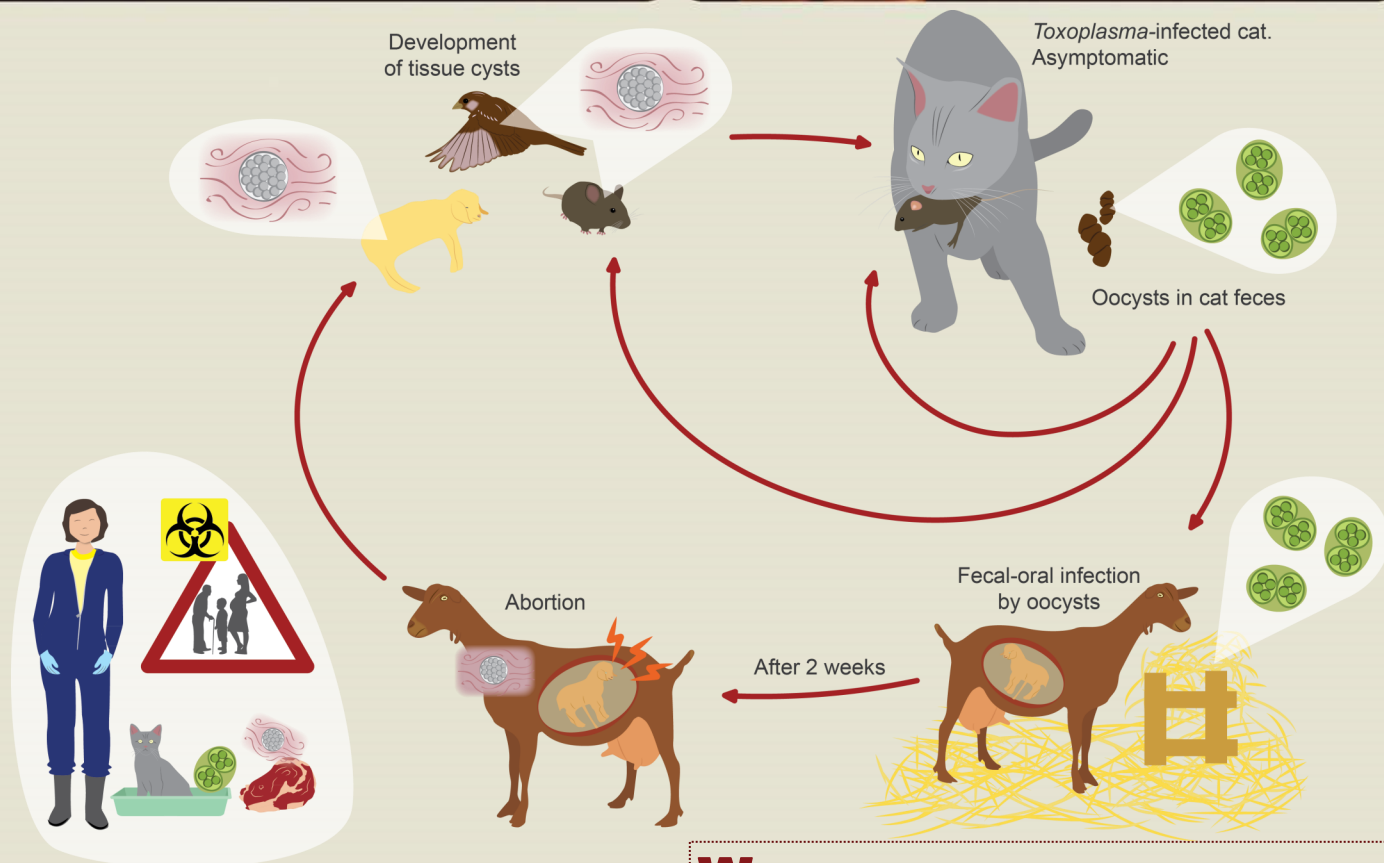
Source : Dr. John M. King, Cornell University College of Veterinary Medicine

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### SOME FACTS ABOUT TOXOPLASMOSIS :

- ◆ Few oocysts are needed to infect a sheep or goat;
- ◆ The uterus can be affected two weeks after ingestion of oocysts;
- ◆ Abortions can begin 4 weeks after ingestion;
- ◆ There may be fetal loss at any time during gestation;
- ◆ Except for abortion, the infected ewe or doe has very few clinical signs.

# Diagram of the development of Toxoplasmosis protozoan



## DIAGNOSTIC ●●

The diagnosis is mainly made by a **pathological examination and molecular tests** carried out in the laboratory from the aborted fetus and the placenta.

## PREVENTION ●●

The main prevention is the **strict control of cats** (sterilized and healthy cats, covered food tanks). Providing them with litter for their needs will prevent defecation in the feeding area (feeder, trough) and storage.

## TREATMENT ●●

**No vaccine is currently available in Canada.** Even though Deccox cannot eliminate the condition, it can be used to **HELP** control it. Consult your veterinarian practitioner.

## WARNING ZONOSIS!

**TOXOPLASMOSIS IS ZONOTIC, AND IS TRANSMISSIBLE TO HUMANS.** Its transmission occurs through the consumption of raw or undercooked meat contaminated with the encysted form of the protozoa, poorly washed vegetables contaminated with cat stools, and by contact with cat excrement (wear gloves when cleaning the litter and cover the sandboxes where children play).

Clinical signs in humans generally resemble flu-like symptoms: fever, muscle pain, headache. Watch out for people at particular risk, such as pregnant women, children, immunocompromised people and the elderly.



Source: NADIS animal health skills

### SOME ADVICE TO LIMIT INFECTION :

- ◆ Cleaning and disinfection of sheep pens (very few disinfectants are effective against oocysts). A good cleaning is therefore essential;
- ◆ Vermin control;
- ◆ Sterilization of cats to prevent them from reproducing;
- ◆ Make sure that cats do not defecate in food;
- ◆ Keep clean litter in the pens;
- ◆ Personnel hygiene measure (gloves, hand washing, etc.).

Cultivons l'avenir 2

Une initiative fédérale-provinciale-territoriale

Growing Forward 2

A federal-provincial-territorial initiative

Canada

Québec

Translation: Saskatchewan Sheep Development Board thanks to funding from Growing Forward 2, a Canada and Government of Saskatchewan initiative. I Thank you to Ms. Corlena Patterson of the Canadian Sheep Federation for the review.