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# INCIDENCE OF TOXOPLASMOSIS: REVIEW

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**Abstract:**

This parasite (*Toxoplasma gondii*) is one of the important parasites spread in many countries and at different rates. This parasite spreads at high rates, especially in areas that lack a good and clean environment that prevents the spread of this parasite.
The second important reason for the spread of this parasite is the presence of direct contact between the final host, which is cats, and the intermediate host, which is humans and some farm animals.
This study was conducted for the importance of this parasite and the knowledge of its spread in Iraq and some countries.

**Keywords:** Toxoplasmosis, Toxoplasma gondii, Iraq

## INTRODUCTION

This parasite (*Toxoplasma gondii*) is considered one of the most widespread parasites and it spreads among humans and animals. This disease poses a danger to newborn children if it causes them to have congenital malformations and also causes vision loss. In the case of pregnant women, it causes miscarriage, while adults do not cause them a great danger. (Dubeyand Beattie 1988; Renold et al. .1992).

## SPREAD OF T. GONDII

1. Eating of oocysts in food, drink, or give contam inated with faeces of an infected cat.
2. Blood transfusion.
3. Transplacental/inherited.
4. Intake of cysts in raw or under cooked meat.
5. Organ transplantation. (Dubey, 2001; Dubey, 2004).

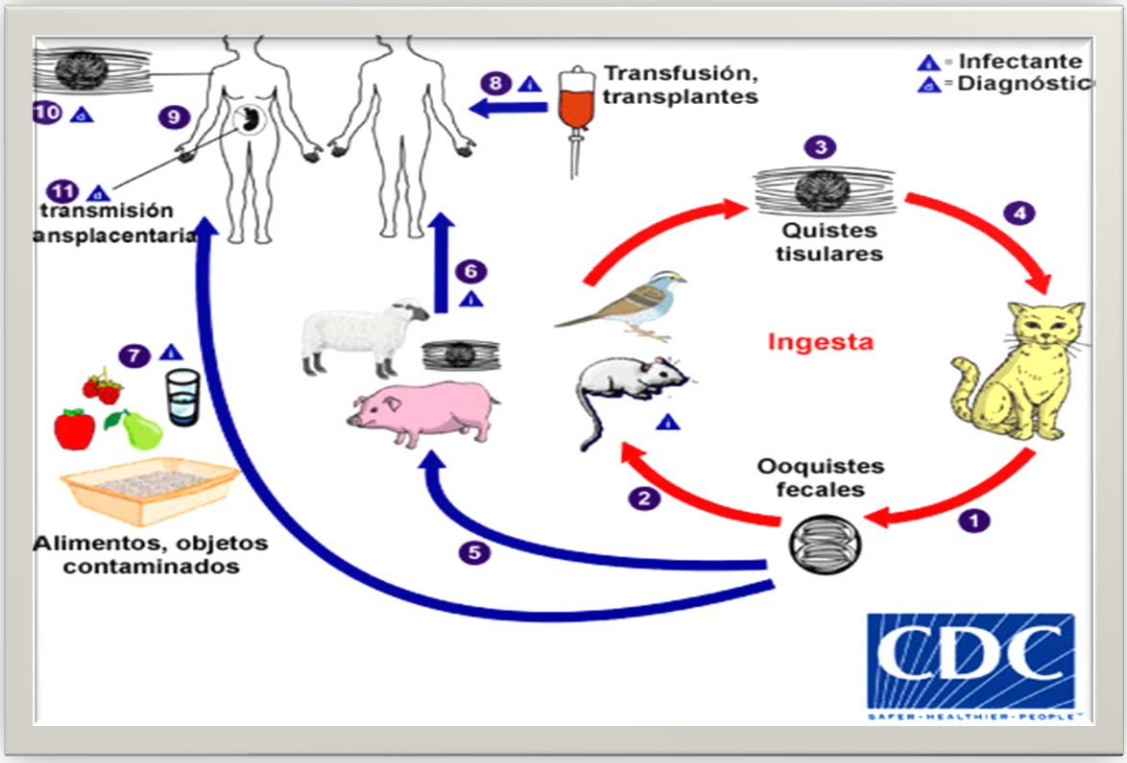


Figure 1 : *T. gondii* Life cycle (CDC–DPDx (2009)

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In Malaysia, This study was conducted on the examination of 200 pregnant women for the detection of the parasite by serological methods to detect the presence of the type of antibody, and the result was all the following (total infected was 49%, in which 39% IgM, 4% IgG and 6% for IgM and IgG)( V Nissapatorn, 2003).

The result in Australia was that sheep and goats were infected with the parasite and the reason for this was due to the large presence of cats with these animals (69% in goats, 66% in sheep).( R. Edelhofer and Prossinger 2010).

In Palestine in 2004, this study was conducted to detect this parasite in 204 pregnant women, The results were the percentage of infection with this parasite forming antibodies type IgG was 27.9% from urban women (21.4%) , rural areas (36.8%) ( K I Nijem and S Al-Amleh 2000).

This disease spreads unevenly in America, where it spreads in North America up to 16% , While it is spread in South America about 75% In Europe, it is spread unevenly, where it is found in Scotland up to 10%, and in Poland 63%.( Pappas, et al 2009)

The prevalence of the disease was found in the regions of central and southern Europe from (30-50%).

While high rates of the spread of this disease were in Latin America and tropical African countries (Pappas, et al 2009).

The results showed the spread of the disease in the country of Saudi Arabia significantly, where the infection appeared about one-thirds had (IgG) of the country's population by testing the serotype to diagnosing the antibody and the percentage of this disease , The percentage of the disease carriers seropositive IgM was 6.4%,

A high incidence of this disease appeared in sheep, up to 68%, in the city of Riyadh, While in the city of Najran, the proportion was 19% in sheep, goats and camels. (Khalil Mohamed 2020).

The study was conducted in Baghdad in the year 2009 and found the percentage of the presence of this disease in pregnant women who formed IgG antibody are 3 women out of the total number which is 54 pregnant women(Mossa 2009).

In the Dohuk governorate in northern Iraq, it was found that the prevalence of the disease in women who suffer from loss of the fetus during pregnancy, which is composed of IgM antibody, is 3 women out of a total number of 310, by testing enzyme-linked immunofluorescent assay(Razzak 2005).

In Basra Governorate, especially, this study was conducted for school students to find out its prevalence among the students. The result was two students who were carriers of the disease in its acute form, that is, two of the IgM antibody components from 177 , while the carriers of the IgG antibody were 20 students.

The reason for this result is due to the contact of students with the soil and grounds of schools exposed to the presence of cat feces (Maysaloon et al 2018).

## CONCLUSION

The prevalence of this parasite in most countries is found unevenly, and its spread is widespread in some countries due to the countries' lack of personal hygiene and direct contact between the final host, cats, and the intermediate host, humans and farm animals.

This parasite strongly affects pregnant women, which shows symptoms on pregnant women and causes miscarriage and loss of the fetus or the birth of the fetus in a distorted way.

To reduce this disease, especially in countries that lack knowledge of the importance of the disease, such as awareness lectures, or to prevent humans or farm animals from coming into contact with stray cats to prevent the completion of the parasite's life cycle and its transmission to the intermediate host and its spread to other hosts widely. One of the most important points to reduce it is personal hygiene, especially after dealing with cats, which It is the simplest way, which is washing hands while handling or touching cats.

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