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Toxoplasmosis and Pregnancy

This sheet talks about the risks that exposure to toxoplasmosis can have during pregnancy. With each pregnancy, all women have a 3% to 5% chance of having a baby with a birth defect. This information should not take the place of medical care and advice from your health care provider.

What is toxoplasmosis?

Toxoplasmosis is an infection caused by the parasite *Toxoplasma gondii*. You can get it by eating undercooked, infected meat, or handling soil or cat feces that contain the parasite. Swelling of the lymph nodes or a mononucleosis-type (fever, fatigue, and sore throat) illness may be seen. Most adults have no symptoms. In most cases, once you have gotten toxoplasmosis, you cannot get it again.

Who is at increased risk for toxoplasmosis?

Women who have outdoor cats, have recently gotten cats, eat undercooked meat, garden, or who have had a recent mononucleosis-type illness are at increased risk. However, eating undercooked meat is by far more of a risk than having a cat and in fact a study done in Europe found that contact with cats per se was not a risk factor at all.

How can I find out if I am at risk for toxoplasmosis?

In the United States, approximately two-thirds of women have never had toxoplasmosis and are at risk for an infection. There is a higher prevalence of toxoplasmosis in Europe where far more undercooked meat is eaten. A blood test can determine if you have ever had toxoplasmosis. Ideally, testing for toxoplasmosis should be done prior to conception. If an infection is identified during pregnancy, several tests may be needed to see whether the infection is recent or old. You should discuss whether you should be tested with your health care provider.

What precautions can I take to avoid infection?

Toxoplasma gondii can be found in raw or undercooked meat, raw eggs and unpasteurized milk. Cats that eat raw meat or rodents can become infected, and the parasite lives in the cat's feces for two weeks. *Toxoplasma gondii* eggs can live in cat feces buried in soil up to 18 months. To avoid infection, pregnant women should

- cook meat until it is no longer pink and the juices run clear
- wear gloves and wash hands after gardening
- wash all fruits and vegetables
- wash hands carefully after handling raw meat fruit, vegetables, and soil
- do not touch cat feces

I had a toxoplasmosis infection two years ago and I am currently pregnant. Is my fetus at risk?

Congenital toxoplasmosis only occurs when the mother has an active infection during pregnancy. In general, there is no increased risk to the fetus when toxoplasmosis occurs more than 6 months prior to conception. If you had toxoplasmosis in the past, you are usually immune, and the fetus is not at risk. If you have a weakened immune system, such as in AIDS, you can develop another active infection.

I am pregnant and have just found out that I have recently been infected with toxoplasmosis. Is my fetus at risk?

The toxoplasmosis parasite is known to cross the placenta. In about 40 percent of the cases in which a pregnant woman has toxoplasmosis, the baby is also infected. Infants who become infected during pregnancy are said

to have “congenital toxoplasmosis” infection. In the United States, 1 to 2 per 1000 babies are born with toxoplasmosis each year. Some infants with congenital toxoplasmosis will have medical conditions that include problems with the brain, eyes, heart, kidneys, blood, liver, or spleen. Long term effects may include seizures, mental retardation, cerebral palsy, deafness, and blindness. Many infected infants will have no problems at birth. Discuss with your health care provider whether you should see a specialist for further information.

Is there a higher risk to my pregnancy because I have toxoplasmosis and am only 10 weeks pregnant?

When the mother is infected between 10 to 24 weeks’ gestation, the risk for severe problems in the newborn is about 5 to 6 percent. When the mother is infected late in a pregnancy, the chance that the baby will have problems is very small.

How can I find out if my fetus has been infected with toxoplasmosis?

Once you have been shown to be recently infected, there are several ways to check if your fetus has been infected. The fluid around the fetus or fetal blood can be examined to determine the presence of infection. However, if the fetus is infected, these tests cannot tell you how severe the infection is. About one-third of the babies born with congenital toxoplasmosis will have a problem that could have been seen on ultrasound. After birth, a blood test can be performed on the baby. You should discuss these tests with your health care provider.

Is there any treatment for toxoplasmosis during pregnancy?

Maternal toxoplasmosis infection can be successfully treated with antibiotic medication. Early identification and treatment can reduce the chance that the fetus will become infected. If the fetus has already become infected, treatment with other medications will make the fetal disease less severe. However, treatment may not prevent effects in the baby. Treatment during the first year of life may also be helpful. Your health care provider can discuss specific treatment options with you.

If my baby is born without any symptoms of congenital toxoplasmosis, does this mean the toxoplasmosis infection in pregnancy had no effect?

Infants with congenital toxoplasmosis usually don’t appear any different at birth. Yet, long-term studies show that up to 90 percent develop problems including vision loss, hearing loss, or developmental delays. These symptoms can occur months or even several years after birth. For this reason, infants with congenital toxoplasmosis should be treated for the infection during the first year of life and then should be periodically screened for problems.

References:

- Berrebi A, et al. 1994. Termination of pregnancy for maternal toxoplasmosis. *Lancet* 344:36-39.
- Cook AJC, et al. 2000. Sources of toxoplasmosis in pregnant women. *BMJ* 321:142-147.
- Couvreur J, et al. 1993. In utero treatment of toxoplasmic fetopathy with the combination pyrimethamine-sulfadiazine. *Fetal Diagn Ther* 8:45-50.
- Daffos F, et al. 1988. Prenatal management of 746 pregnancies at risk for congenital toxoplasmosis. *N Engl J Med* 318(5):271-275.
- Desmonts G, et al. 1985. Prenatal diagnosis of congenital toxoplasmosis. *Lancet* 1:500-504.
- Dubey JP and Beattie CP. 1988. Toxoplasmosis of Animals and Man. Boca Raton: CRC Press, p 288.
- Foulon W, et al. 1990. Detection of congenital toxoplasmosis by chorionic villus sampling and early amniocentesis. *Am J Obstet Gynecol* 163:1511-1513.
- Foulon W, et al. 1990. Prenatal diagnosis of congenital toxoplasmosis. *Obstet Gynecol* 76(5):769-772.
- Hohlfeld P, et al. 1994. Prenatal diagnosis of congenital toxoplasmosis with a polymerase-chain-reaction test on amniotic fluid. *N Engl J Med* 331(11):695-699.
- Hunter K, et al. 1983. Prenatal screening of pregnant women for infections caused by cytomegalovirus, Epstein-Barr virus, herpes virus, rubella, and *Toxoplasma gondii*. *Am J Obstet Gyn* 145:269-273.
- Johnson JD, et al. 1993. Application of the polymerase chain reaction to the diagnosis of human toxoplasmosis. *J Infect* 26(2):147-158.
- Koppe JG, et al. 1986. Results of 20-year follow-up of congenital toxoplasmosis. *Lancet* 1:254-255.
- Lynfield R and Eaton RB. 1995. Teratogen update: Congenital toxoplasmosis. *Teratology* 52(3):176-180.
- Matsui D. 1994. Prevention, diagnosis and treatment of fetal toxoplasmosis. *Clin Perinatol* 21(3):675-689.
- Remington JS and Desmonts G. Toxoplasmosis. In: Remington JS and Klein JO (eds.) 1990. Infectious Diseases of the Fetus and Newborn Infant. Philadelphia: W.B. Saunders Co., pp 89-195.
- Stray-Pedersen B. 1993. Toxoplasmosis in pregnancy. *Baillieres Clin Ob Gynecol* 7(1):107-137.
- Wilson CB. 1980. Development of adverse sequelae in children born with subclinical toxoplasmosis infection. *Pediatrics* 66(5):767-774.
- The Toxoplasmosis Study Group. 1990. Congenital toxoplasmosis. *Am J Dis Child* 144:619.