One of the first lessons regarding congenital infections taught to third-year medical students on obstetrics and reinforced during their pediatric rotations are the variety and pathogenesis of perinatal viral and parasitic infections that can affect pregnant women and their fetuses. From the time of their residency training, obstetricians have been instructed to counsel their patients about strategies to reduce the risk of acquiring these infections. Ideally, these discussions should occur during visits focused on pre pregnancy counseling. However, it is the standard of care to provide this information to pregnant women during early prenatal care visits.

Obstetricians focus on the protozoan parasite Toxoplasma gondii because of the concern that maternal exposure, which is often asymptomatic, could lead to fetal infection resulting in congenital toxoplasmosis and the devastating neurologic and ocular sequelae that may occur in the affected child. Patients are counseled that avoidance of fecal contamination from cats and consumption of undercooked meat and meat products can significantly reduce the risk of exposure to this parasite. Strict avoidance strategies have been demonstrated by European investigators to be effective in reducing the rate of maternal toxoplasmosis infection.

To further reduce the disease burden of toxoplasmosis infection, the concept of prenatal serologic screening and treatment has been investigated by a number of researchers but is currently the source of significant controversy. Epidemiologic studies in Europe have supported the use of widespread serologic screening and treatment to avoid congenital toxoplasmosis. However, well-designed randomized controlled trials to evaluate the effectiveness and safety of both perinatal screening and treatment are currently lacking.

Routine prenatal screening and treatment has been the standard practice in France for many years. Currently, screening recommendations from respected authorities and professional societies in the United States, such as the American College of Obstetrics and Gynecology, do not recommend routine serologic screening during pregnancy except in immunocompromised patients, such as human immunodeficiency virus–infected women. These US recommendations have been supported by the lack of strong scientific evidence establishing the value of more aggressive screening strategies in pregnancy and the fact that the rate of toxoplasmosis is much higher in France and Latin America than in North America.

The article by Boyer et al [1] raises significant questions about contemporary US screening recommendations. In their study, Boyer and colleagues used new and novel methodologies to determine whether mothers of infants with congenital toxoplasmosis could be identified by risk factor identification, thereby providing strong support for educating pregnant women about risk avoidance in an effort to eliminate this congenital disease. The investigators used stored serum samples obtained from a cohort of North American women who delivered infants who received a diagnosis of congenital toxoplasmosis and who were previously interviewed about recognized risk factors as part of the National Collaborative Chicago-Based Congenital Toxoplasmosis Study (NCCCTS). In this current investigation, the previously acquired serum samples were tested using a new method to identify an antibody specific to the T. gondii sporozoite, indicating infection of oocysts formed in cats.

The results of this study indicate that high rates of exposure to oocysts occurred in the NCCCTS mothers. However, the authors found that demographic characteristics did not reliably predict exposure to oocysts and that there was a lack of correlation between oocyst exposure and
the severity of maternal or infant illness. In addition, the recognition of risk factors had limited sensitivity and specificity in identifying those individuals infected by oocysts.

The conclusions of this study are quite interesting from a scientific and epidemiologic perspective, but quite sobering from a clinician’s point of view. Toxoplasmosis acquired during pregnancy can lead to devastating problems for the children of infected mothers. Patients need to be encouraged to avoid exposure to well-established environmental risk factors. However, the results of this study and other observations strongly suggest that, despite avoidance strategies, women are being exposed unknowingly to *T. gondii* oocysts. Even those who do not own or handle cats may be exposed to environmental feline fecal contaminants. Individuals may wear gloves while gardening, carefully wash fruits and vegetables, and thoroughly cook the meats that they consume but, theoretically, can acquire the *T. gondii* oocysts from their beloved canine companion whose fur was contaminated while rolling in the park where infected cats had been.

As the authors have concluded in this fascinating and thought-provoking study, “only systematic screening of pregnant women and/or a vaccine have the potential to prevent the fetal disease caused by acquisition of *T. gondii* during gestation by pregnant women in North America” [1]. Years ago, the French medical and public health authorities accepted the concept of perinatal screening and treatment to reduce the incidence of congenital toxoplasmosis. The current state of screening technology has evolved, and the economic argument against widespread screening appears to be dated. In the United States, can future mothers and their offspring afford to wait years for additional data to be accumulated from long-term, well-designed randomized controlled trials to evaluate the effectiveness and safety of both perinatal screening and treatment? Can this society afford the cost of funding these studies along with the additional financial and social burden of life-long support for those individuals who experience the major sequelae of congenital toxoplasmosis? It is time for these concepts to be seriously and carefully revisited in the United States.

**Note**

*Potential conflict of interest.* E. S. L. has been a consultant and served on the speakers’ bureau for family planning and menopause-related therapeutics for TEVA Pharmaceuticals.

The author has submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

**References**

1. Boyer K, et al. Unrecognized ingestion of *Toxoplasma gondii* oocysts leads to congenital toxoplasmosis and causes epidemics in North America. *Clin Infect Dis* 2011; 53:1081–9.