

# Gonococcal infection as a preventable risk factor for low birth weight.

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## **Abstract:**

With the objective of determining if specific sexually transmitted diseases (STDs) are associated with prematurity (birth weight less than or equal to 2500 g and gestational age less than or equal to 36 weeks), a case-control study was conducted to evaluate women for serologic evidence of syphilis and human immunodeficiency virus infection and microbiologic evidence of cervical infection with *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and *Haemophilus* species and vaginal infection with genital mycoplasma, *Streptococcus agalactiae*, and *Enterobacteriaceae*. Gram stains of vaginal secretions were evaluated for bacterial vaginosis. Among 166 cases and 175 controls, infection with *N. gonorrhoeae* was associated with preterm birth. Four percent of controls and 11% of cases were infected with *N. gonorrhoeae* (odds ratio 2.9, 95% confidence interval 1.2-7.2). This association was independent of age, rupture of membranes, and hypertension. Other STDs were not associated with preterm birth. The attributable risk of gonococcal infection was 14%. Gonococcal infection appears to be responsible for a substantial proportion of premature births and is theoretically preventable by antenatal case detection and treatment