

Pregnancy associated with greater risk of certain bacterial infection, may worsen outcomes

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In a surveillance study of infection with the bacterium *Haemophilus influenzae* among women of reproductive age in England and Wales from 2009-2012, pregnancy was associated with a greater risk of this infection, which was associated with poor pregnancy outcomes such as premature birth and stillbirth, according to a study in the March 19 issue of *JAMA*.

Haemophilus influenzae can cause illnesses that include respiratory infections. Some studies have suggested an increased risk of invasive *H influenzae* disease during pregnancy, although these were based on a small number of cases, according to background information in the article.

Sarah Collins, M.P.H., of Public Health England, London, and colleagues examined the outcomes of invasive *H influenzae* disease in women of reproductive age during a 4-year period. The study included data from Public Health England, which conducts enhanced national surveillance of invasive *H influenzae* disease in England and Wales. General practitioners caring for women ages 15 to 44 years with laboratory-confirmed invasive *H influenzae* disease during 2009-2012 were asked to complete a clinical questionnaire three months after infection.

The incidence of laboratory-confirmed invasive *H influenzae* disease

was low, at 0.50 per 100,000 women (171 women). Pregnant women were at higher risk of infection mainly due to unencapsulated (a category of strain) *H influenzae* disease. This infection during the first 24 weeks of pregnancy was associated with fetal loss (93.6 percent) and extremely [premature birth](#) (6.4 percent). Unencapsulated *H influenzae* infection during the second half of [pregnancy](#) was associated with premature birth in 28.6 percent and stillbirth in 7.1 percent of 28 cases. In addition to the serious infection, these infants were also at risk for the long-term complications of prematurity. Pregnancy loss following invasive *H influenzae* disease was 2.9 times higher than the U.K. national average.

The authors write that the finding that almost all infections were associated with miscarriage, stillbirth, or premature birth provides evidence of the severity of infection in [pregnant women](#). "Invasive *H influenzae* disease is a serious infection also among nonpregnant women that requires hospitalization for intravenous antibiotics and close monitoring following appropriate microbiological investigations, particularly given that more than half of the nonpregnant women in this investigation had a concurrent medical condition."

"What should be the response by the [public health](#) community and those providing care to pregnant women and newborns in light of the findings of Collins et al?," asks Morven S. Edwards, M.D., of the Baylor College of Medicine, Houston, in an accompanying editorial.

"With infectious diseases, the diagnosis is made only when infection is considered a possibility and when appropriate testing is performed. As an immediate goal, laboratories should be aware that *H influenzae* (especially unencapsulated strains) are potential pathogens in pregnant women and neonates," Dr. Edwards writes. "Moving forward, it will be important to determine the scope of [infection](#) caused by this pathogen in other geographic regions."

More information: [DOI: 10.1001/jama.2014.1878](https://doi.org/10.1001/jama.2014.1878)
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