

# Proton-Pump Inhibitors Safe During Early Pregnancy

*First-trimester exposure to PPIs — and use of omeprazole within the month before pregnancy — did not significantly raise risk for major congenital birth defects.*

As many as 3% of women use proton-pump inhibitors (PPIs) for gastroesophageal reflux before or during pregnancy. Although results of a small meta-analysis suggested that antenatal PPI use does not raise risk for congenital malformations in offspring (*Am J Gastroenterol* 2009; 104:1541), no large population-based study has confirmed this finding. Now, Danish investigators have used national healthcare databases to link PPI prescription fill rates with 840,968 live births and with records of major congenital malformations from 1996 through 2008. Analyses were adjusted for several potentially confounding demographic factors, medical conditions, and drug exposures.

Risk for major birth defects did not differ significantly for infants who were exposed to PPIs during the first trimester versus those who were not exposed (3.2% vs. 2.6%; adjusted prevalence odds ratio, 1.1; 95% confidence interval, 0.9–1.3). However, women who filled PPI prescriptions within 4 weeks of conceiving had significantly higher risk for offspring with major birth defects (adjusted prevalence OR, 1.4; 95% CI, 1.1–1.8). Subanalyses of individual PPIs showed that only antepartum lansoprazole use was associated with excess risk for birth defects, whereas omeprazole showed no significant associations at any exposure time.

**Comment:** Women of reproductive age who require PPI treatment might consider choosing omeprazole (Prilosec and generics), as this agent did not raise risk for congenital malformations when ingested before or during pregnancy. However, as an editorialist notes, this population-based study did not address other important factors that significantly affect risk for birth defects (e.g., adequate folate intake before conceiving). Nonetheless, the results should reassure women that PPI intake during the first trimester does not seem to raise risk for major birth defects above that in the general population.

— [Wendy S. Biggs, MD](#)

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