

# The Safety and Efficiency of Proton Pump Inhibitors during Pregnancy and Conception

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**W**e live in a constantly changing world and due to stress, bad eating habits and *Helicobacter Pylori* (HP) infections, and we tend to auto-medicate ourselves with different proton pump inhibitors (PPIs) in order to cure our “heartburns”. But what happens if we are young and are trying to procreate? What are the side effects and the incidence of severe birth defects after PPIs use during pregnancy and before procreation?

This was the question addressed by a study, recently published in *New England Journal of Medicine*. Researchers used Danish registries to identify roughly 5000 women who filled prescriptions for PPIs in the 4 weeks before conception through the first trimester of pregnancy. Omeprazole was the most commonly prescribed PPI.

The main conclusions of this study were that PPI exposure during the first trimester was not associated with increased risk for major birth defects when compared with no exposure. However, exposure to PPI in the 4 weeks before conception was associated with higher risk of major birth defects, with the adjusted odds ratio being 1.39. However, the only statistical significant association with birth defects in this category was with lansoprazole.

The only solid conclusion that can be drawn from this study is that IPP's and omeprazole in particular, can be used relatively safe in the first trimester of pregnancy. Regarding the exposure to PPI's in the period before conception, data are still scarce. In this study, only lansoprazole seemed to be associated with birth defects before conception, but definitive data are still lacking.

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*Comment on a paper:*

P.M. Rothwell, F.G.R. Fowkes, J.FF Belch, et al. – Effect of daily aspirin on long-term risk of death due to cancer: analysis of individual patient data from randomized trials. *The Lancet*, Early Online Publication, 7 December 2010, 6736(10): 62110-1