How common is gastroesophageal reflux disease in pregnant women?

In the baseline population of individuals who are not pregnant, gastroesophageal reflux disease (GERD) is present in approximately 40% of Americans on a monthly basis and approximately 7–10% of Americans on a daily or weekly basis. Many studies have found that GERD is very common during pregnancy; approximately 30–50% of pregnant women complain of heartburn.

What risk factors predispose patients to the development of GERD during pregnancy?

Although most pregnant women with GERD do not report having prior heartburn symptoms, one of the risk factors for having GERD during pregnancy is the presence of pre-existing GERD. Other risk factors for GERD during pregnancy include increased maternal age and weight gain, so that the more weight that a patient gains during pregnancy, the higher the risk of developing GERD.

How safe are proton pump inhibitors for treating GERD in patients who are pregnant?

Except for omeprazole, all proton pump inhibitors (PPIs) are classified as category B drugs by the US Food and Drug Administration (FDA), which means that they are safe to use during pregnancy. Omeprazole is currently classified as a category C drug (Animal studies show risk but human studies are inadequate or lacking or no studies in humans or animals). However, since the category rating for omeprazole was established, multiple studies have been published demonstrating that omeprazole is as safe as any other PPI for pregnant women. For example, a large study from Denmark published in The New England Journal of Medicine in 2010 examined over 840,000 births and did not find any association between PPI usage in the first trimester and birth defects. In this study, omeprazole was the most commonly prescribed PPI. In a meta-analysis of 7 studies published in 2009, there was no evidence linking PPI exposure in pregnancy to adverse outcomes such as congenital malformations, spontaneous abortions, or premature deliveries. When data were analyzed separately for omeprazole usage, there was no change in the results.

The most interesting finding from the 2010 Danish study was that there was an increased risk of birth defects in women who reported PPI usage 1–4 weeks before conception. However, the authors were unable to arrive at the same conclusions when they examined usage of omeprazole alone or usage of over-the-counter PPIs. Therefore, more research is needed to definitively conclude whether there is an increase in the risk of birth defects in patients who are on PPI therapy prior to becoming pregnant.

Thus far, is there enough research to conclude whether PPI therapy is safe in pregnant women?

Yes, there are enough data to suggest that PPI therapy is safe during pregnancy—and this includes all PPIs, even omeprazole. Despite being labeled as a pregnancy category C drug by the FDA, many studies have demonstrated that omeprazole is safe in pregnant women, as discussed above; in fact, the majority of safety data
on the use of PPI therapy in pregnant GERD patients involve omeprazole because it was the first PPI that was available. As all PPIs are safe in pregnant women—and no single PPI is safer than other PPIs—there is no reason for a pregnant woman on PPI therapy to switch to a different PPI.

The recent study from Denmark suggested that there was an increased risk of birth defects in patients who were on PPI therapy prior to conception, and the researchers suggested that patients should stop PPI therapy if they were contemplating pregnancy. Thus, it has been suggested by some gastroenterologists that GERD patients should try to discontinue PPI therapy when trying to become pregnant; however, more data are needed before this guideline should be recommended to all GERD patients contemplating pregnancy.

Many patients with GERD have intermittent symptoms, so they can use PPI therapy for symptom control as needed. This management strategy has been demonstrated to be effective for a large number of patients with GERD in the general population.

**G&H** In your experience, do most doctors currently prescribe PPI therapy to GERD patients who are pregnant or trying to become pregnant?

**LBG** In my practice, I encounter women who are contemplating pregnancy more commonly than women who are already pregnant; once women become pregnant, their obstetricians usually take over management, including management of GERD symptoms. The issue of whether PPI therapy should be discontinued is a common topic of conversation with my GERD patients who are contemplating pregnancy. In these patients, I usually recommend temporary cessation of PPI therapy during conception and pregnancy, if tolerated, but I also explain that the usage of these agents has been demonstrated to be safe and, therefore, they should be used if needed.

**G&H** How safe are other treatment options in pregnant GERD patients?

**LBG** If a pregnant woman is experiencing mild-to-moderate GERD symptoms during pregnancy, the initial treatment options should include either antacids or an H₂-receptor antagonist such as famotidine or ranitidine. If the patient’s heartburn is severe, the patient could be started on PPI therapy. For patients who are not responding to PPI therapy, a prokinetic agent such as metoclopramide (pregnancy category B) could be added.

The usage of laparoscopic surgery in pregnant patients is feasible when clinically indicated. The most common scenario would be cholecystectomy for acute cholecystitis or biliary colic or an appendectomy in the setting of acute appendicitis. In some studies, patients with GERD have successfully undergone laparoscopic Nissen fundoplication prior to pregnancy in order to discontinue PPI therapy, but this would not be routinely recommended, given the safety of medical therapy. The effectiveness and safety of surgical fundoplication in pregnant patients with GERD have not been reported.

**G&H** Are lifestyle modifications effective for managing GERD in pregnant patients?

**LBG** Yes, in fact, the first treatment recommendation for patients with pregnancy-induced GERD should include lifestyle modifications such as eating smaller meals and not eating late at night (ie, within 3 hours of bedtime). Not much data have been found to support the avoidance of caffeine and/or spicy foods in order to alleviate GERD symptoms, but patients should avoid any foods that trigger symptoms. If patients have nighttime GERD, they should elevate the head of their bed with a foam wedge, as data have shown that this adjustment reduces GERD symptoms.

**G&H** What are the next steps in research in this area?

**LBG** Given the above data, it would be efficacious to conduct additional studies evaluating the safety of PPI therapy during conception, given the recent concern about a possible increase in birth defects in these patients. It would also be useful to collect more long-term data regarding whether pregnant patients with GERD experience this condition postpregnancy and when the recurrences occur in the postpartum period.

**Suggested Reading**


