

## What You Should Know About Proton Pump Inhibitors

*Gregory A. Hood, MD, MACP*

**What are proton pump inhibitors?** Proton pump inhibitors (PPIs) work by lowering the amount of acid in the stomach. PPIs treat conditions caused by too much stomach acid. Most commonly these conditions are inflammation such as gastritis, esophagitis, heartburn or gastroesophageal reflux disease (GERD), with or without the presence of ulcers. Sometimes PPIs are used to treat precancerous conditions, such as Barrett's esophagus.

**How are medications selected?** Generally speaking, medications are recommended when there is a need for treatment and the benefits of the medication are felt to reasonably exceed the risks of the medication. The balance of benefit and risk of using a medicine is greatly affected by the risks posed by the condition being treated. Sometimes the medical knowledge about medicine risks change because of monitoring that is done once medications have been released on the market.

**What concerns have been raised about PPIs?** The use of PPIs in the short term is still regarded as safe and effective. Long term use has been implicated with a number of possible risks, including increased risk of pneumonia, Clostridium Dificile infection, bone fractures, reductions in the body's level of vitamin B12, magnesium, calcium and other nutrients, dementia, and kidney disease.

**What can I do about new and growing concerns?** In a number of cases it is still very important to continue this medication because of the high risks from the condition being treated.

Many other people have continued to take their PPI when lesser medication would suffice out of convenience and because PPIs are very effective. Unfortunately, it is not always so simple to just stop a PPI. Abruptly stopping a PPI may cause the degree of acidity in the stomach to temporarily "rebound" to higher levels than would otherwise be naturally experienced. This does not mean that the dose cannot be decreased or stopped.

\* To maximize your ability to reduce or stop your PPI the importance of weight loss and adjustments to portion size and diet selection cannot be overemphasized. Prevention is always better and cheaper than medication.

- 1) Avoid foods that cause the junction of the esophagus and stomach to relax like chocolates, caffeinated beverages, fatty foods, spicy foods, carbonated beverages, citrus foods, and peppermint.
- 2) Eat smaller portions, even if this means eating more frequent meals. Avoid overeating.
- 3) Give up smoking.
- 4) Lose weight. A 10% body weight loss can dramatically reduce the amount of stomach and esophagus problems.
- 5) Do not lie down immediately after eating. Consume your last food at least three hours before bed. Also do not bend over after eating. Always bend at the knees rather than the waist. It puts less pressure on the abdomen.

- 6) Reflux of acid is more injurious at night than during the day because it is uninterrupted by the consumption of food. Elevate the head of the bed at least six inches.
- 7) Avoid tight-fitting garments especially around the waist and abdomen.
- 8) Take up an exercise regimen to help relieve stress and lose weight, reducing pressure on the abdomen as well.
- 9) Chew sugarless gum between meals. This produces more saliva which is alkaline and helps neutralize the acid. The swallowing action will push the food back into the stomach.
- 10) Some studies have also linked excessive salt intake with development of GERD. Limiting salt intake is probably a sensible precaution.

**How should I take, or change a PPI?** If you take a PPI once a day, take it 30 to 60 minutes before breakfast. If you take it twice a day, take the second dose 30 to 60 minutes before supper. Your stomach makes acid when you eat. Taking the PPI before you eat is the most effective way to stop extra acid from being made. H2-blockers work differently than PPIs.

\* You may safely try to reduce your PPI dosing either from twice a day to once a day; or lower your daily dose by  $\frac{1}{2}$  without encountering withdrawal rebound hyperacidity.

\* To attempt tapering off your PPI you may safely reduce the frequency of your dosing by  $\frac{1}{2}$ , such as from twice a day to once a day, or then from daily to every other day. After a week of doing so the dose may be reduced again, to every third day. After another week you could be able to stop your PPI.

\* If you find you are unable to fully eliminate your PPI without having symptoms then some people also take an antacid or an H2-blocker. H2-blockers are medicines like famotidine (Pepcid), cimetidine (Tagamet), ranitidine (Zantac), or nizatidine (Axid). Please do not choose cimetidine as it has many drug interactions with other medicines and is not as safe as the others for this reason.

\* If you find that you cannot stop your PPI you may be able to reduce your PPI dose by  $\frac{1}{2}$  with the help of an H2-blocker. To do this, take your reduced dose of the PPI in the morning and the H2 at night.

\* If you cannot stop your PPI then for your calcium needs please work with us to make sure that you are getting enough Vitamin D. We may, depending on your diet and circumstances recommend calcium citrate, which is the best calcium supplement for people taking PPIs.

### **In summary**

Our goal is to find the right amount of the right medicine for you. Depending on the circumstance, this may mean no medicine, one, or more than one medication. It may include continuing a PPI because of the balance of benefits and risks. Doing your best with exercise and diet will help us help you in most situations. Because both health and medical knowledge change over time keep up with your recommended health monitoring schedule of preventive and wellness visits, as well as other office visits, and ask us questions. We have decades of training and experience, and want the best for you.