

## THE FAMILY PHARMACIST

A QUICK READ FOR YOUR OTC NEED!

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## OVER-THE-COUNTER HEARTBURN MEDICINES

Heartburn, or more commonly acid indigestion, has been experienced by most everyone at one time or another, and the symptoms can be so distressing that they are frequently confused with the symptoms of a heart attack.

Heartburn is a non-medical term used to describe what doctors call dyspepsia. Simple heartburn is referred to in medical journals as "functional dyspepsia." The term means that no disease process or underlying structural problem seems to be causing the symptoms. Heartburn can also be a symptom of a chronic condition known as gastroesophageal reflux disease (GERD). Medical treatment for GERD ranges from simple antacids to surgery. But when heartburn is related to the ingestion of too much food, eating right before bedtime, drinking alcohol, life stress, and so on, the short-term use of an overthe-counter medicine may be appropriate.

Antacids have been around for a long time and are pretty simple in how they work. But the newer drugs used for heartburn, called "acid reducers," are more complicated in how they regulate stomach acid. How these medicines work affects the time it takes for them to give you relief. For example, antacids work within a few minutes, some acid reducers work within an hour, and others may take up to 24 hours to kick in. And there are also other differences.

Antacids. There are different kinds of antacids, but they all work by neutralizing acid in the stomach. Since more effective and convenient drugs are now available, doctors seldom prescribe antacids anymore. But patients still rely on them for self-treatment. Sodium bicarbonate (baking soda) found in Alka-Seltzer® products, calcium carbonate (Tums®), magnesium hydroxide and aluminum hydroxide (Maalox,® and others), are all alkaline chemicals that neutralize stomach acid. These ingredients have advantages and

disadvantages. Products that contain sodium bicarbonate can raise blood pressure. Antacids with calcium can cause constipation. Although, an antacid with calcium, like Tums, is considered to be the safest one to treat heartburn if you're pregnant. Magnesium can cause diarrhea. Aluminum can cause constipation. Products like Gaviscon® and Mylanta® mix magnesium and aluminum, the idea being that they offset one another. To prevent unpleasant side effects, only use these antacids if you have heartburn once in a while and when you need quick relief. Stay away from any antacid product that contains aspirin. Most of these OTC antacids are the effervescent type. Alka-Seltzer Original,® and Bromo Seltzer® are brands that contain aspirin. The FDA has repeatedly warned consumers about the risk of serious stomach bleeding when using OTC aspirincontaining antacid products to treat heartburn. A good rule of thumb is to be wary of multi-symptom products. Buy only the ingredients you need to treat heartburn.

Acid Reducers. There are two types of "acid reducers" available OTC, histamine 2 blockers (H2-blockers) and proton pump inhibitors (PPIs). But you won't see these names on the package labels. H2-blockers and PPIs work in the lining of the stomach by reducing the acid that we make naturally to digest our food. They are similar in how they work, but the differences are important.

Histamine 2 Blockers. The "H" stands for histamine, the "2" means that the drug blocks the second of three types of histamine receptors (found in the stomach lining), and "blocker" means that it keeps histamine from doing its normal job of stimulating the production of stomach acid. H2-blockers were the first attempt at designing drugs to decrease stomach acid at the point where it is produced by special cells in the lining of the stomach. These drugs will reduce stomach acid pro-

duction by about 70 percent. So they don't block stomach acid production entirely, thus the term acid "reducer." The first H2-blocker was developed in 1972 but wasn't approved for OTC use until 1995. Other H2-blockers have been approved for sale to the public without a prescription. Drugs like Pepsid AC® and Tagamet HB® are the H2blocker type. Nearly 40 years after its approval by the FDA, the manufacturer of the H2-blocker Zantac® has removed it voluntarily from the US market due to the presence of an "impurity" classified as "a probable human carcinogen." This has not been found to be a problem with other OTC brands of H2-blockers.

A big advantage of these OTC drugs is convenience, a single dose can last up to 12 hours. For quick relief and for relief that lasts all day there are products like Pepsid Complete® that combines antacids with an H2-blocker. This combination makes sense because the antacid works immediately and the H2-blocker starts later and lasts all day, but you're still just treating a single symptom, heartburn.

Proton Pump Inhibitors (PPIs). PPIs are saved for frequent or severe heartburn. It's estimated that Americans spend II billion dollars each year on these drugs. However, studies suggest that only onethird of PPI use is appropriate. They are very effective in shutting down acid production. Prilosec,® Nexium®, and Prevacid® are PPIs. A single daily dose of OTC Prilosec® for seven days will reduce stomach acid production by more than 95%. This effectiveness is true for all of this class of drugs, whether OTC or prescription. Even though they are available OTC, PPIs are prescribed extensively by physicians. In fact, they are so effective that medical researchers warn about overuse and taking them for

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too long a period of time. Using PPIs for longer than you need can cause problems, such as low magnesium levels, vitamin B12 deficiency, alteration of gut microorganisms, and increased infections, just to name a few. There are serious medical conditions where taking PPIs long-term is necessary, such as GERD, gastrointestinal ulcers, stricture (narrowing) of the esophagus, and others. But these conditions need to be monitored by your physician. So even though PPIs are available OTC, you shouldn't jump to them first for simple heartburn. Try an antacid or an H2-blocker first plus making diet and lifestyle changes. You can take an OTC PPI for uncomplicated heartburn safely if you limit taking it to a short two-week course. If you need a PPI for more than 14 days you should consult your physician.

## **Recommendation:**

The July 2016 Pharmacist's Letter/Prescriber's Letter suggests the following simple tips to take the "burn" out of heartburn and keep acid from your stomach from backing up into your throat. Try lifestyle changes first:

- Avoid foods you know will give you heartburn
- Eat small portions at mealtime
- Don't lie down for at least 30 minutes after eating
- Avoid alcohol before bedtime
- Raise the head of your bed six inches or so
  - The toughest of all, if you are overweight, lose weight

If these lifestyle changes don't help, you may want to try one of the OTC medicines mentioned above to prevent or treat your heartburn. But call your doctor if, along with your heartburn, you have trouble swallowing or pain when you swallow, see blood in your stool or vomit, feel dizzy, light headed, or short of breath. If you have heartburn more than three times a week for more than two weeks it's time to see your physician. The symptom of heartburn can be a warning sign of a more serious condition.

References on file

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