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Why You Should Never Take Antacids for Digestive Reflux

Analysis by Dr. Joseph Mercola Fact Checked | September 27, 2023

STORY AT-A-GLANCE

- Proton pump inhibitors (PPIs) inhibit acid production in your stomach and are routinely used to treat acid reflux. An estimated 15% of the U.S. population are on PPIs. Antacids like Tums neutralize acid in your stomach but don't block production. They're the least harmful, as their effects are temporary. Be sure to read the ingredients list, however, as many acid neutralizing medications contain aluminum hydroxide, a toxic compound that impairs your body's zeta potential
- If you regularly suffer from heartburn or acid reflux, inhibiting acid production is actually the last thing you want to do
- Acid reflux occurs when contents from your stomach back up into your esophagus, causing stomach acid to irritate the lining of your esophagus. However, excess acid is not the problem. Low acid is, because the lower esophageal sphincter (LES) is pH sensitive and only closes once sufficient acidity is present in the stomach
- Other causes of heartburn include hiatal hernia, medications and foods that relax the LES, foods that irritate the stomach, obesity, smoking and helicobacter pylori infection
- PPIs and antacids are inadvisable as none of the potential underlying causes involves excess stomach acid. What you need is more acid. Long term use of PPIs can compromise your health, as insufficient stomach acid has been linked to asthma, GI-related issues, skin diseases, depression, gallbladder disease, migraines, macular degeneration, osteoporosis and a variety of autoimmune conditions

Americans spend a whopping $13 billion a year on over-the-counter (OTC) antacids (acid neutralizers) and prescription proton pump inhibitors (PPIs), which are the most popular antireflux medications on the market.[1] It's estimated that over 27% of Americans are taking antacids, and more than 15% are on PPIs.[2,3]

PPI drugs like Nexium, Prevacid and Prilosec inhibit acid production in your stomach and are routinely used to treat acid reflux, a condition affecting about 20% of the U.S. population.[4] Once prescribed, your doctor may keep you on a PPI drug for years, despite label warnings suggesting they be used only for short periods.

Antacids like Tums neutralize acid in your stomach but don't block production. As such, they're the least harmful, as their effects are temporary. That said, many acid neutralizing medications contain aluminum hydroxide, a toxic compound that impairs your body's zeta potential,[5] so be sure to read the ingredients.

If you regularly suffer from heartburn or acid reflux and are using prescription PPIs or OTC antacids, you'll want to pay careful attention to this article, as inhibiting acid production is the last thing you want to do.

In a September 16, 2023, Substack article,[6] A Midwestern Doctor took a deep dive into the problems caused by acid-suppressing medications, and how to properly address acid reflux.

As noted in that article, PPIs top the list of medications that are routinely prescribed despite providing minimal benefit and causing real harm. I'll review some of the highlights from that article here, but if you want more, I highly recommend reading his article, "Stomach Acid Is Good For You,"[7] in its entirety.

The Primary Cause of Acid Reflux

Acid reflux occurs when contents from your stomach back up into your esophagus, causing stomach acid to irritate the lining of your esophagus. Other common names for this condition include acid indigestion, acid regurgitation, heartburn and gastroesophageal reflux disease (GERD).

If you experience acid reflux symptoms more than twice a week, you very likely have reflux disease or GERD, which involves bloating, burning pain in your chest and gut discomfort.

Now, because stomach acid is involved, and the word "acid" connotes the idea of "burning," it's commonly believed that excess stomach acid is the problem. Indeed, the entire antacid industry is built around this idea.

> **"Acid reflux occurs when contents from your stomach back up into your esophagus, causing stomach acid to irritate the lining of your esophagus. However, excess acid is not the problem. Low acid is, because the lower esophageal sphincter is pH sensitive and only closes once sufficient acidity is present in the stomach."**

Unfortunately, that's completely backward. Acid reflux is typically caused by a deficiency in stomach acid, not excess. How is this possible? It's rather simple, actually. As explained by A Midwestern Doctor:[8]

> *"The lower esophageal sphincter is pH sensitive and only closes once sufficient acidity is present in the stomach (which makes sense since otherwise food would not be able to get to the stomach in the first place, but once it's there, you need a way to keep it from getting back into the throat)."*

Other Causes of Heartburn

When low acid is not the cause of heartburn, the culprit can any of the following:

A hiatal hernia — The hernia basically forces the LES open, allowing gastric

Helicobacter pylori infection[10] — One 2012 study found 82.5% of GERD

juices to back up into your throat[9]	patients tested positive for H. pylori infection[11]
Obesity[12]	Smoking, by interfering with the LES function[13]
Certain medications can relax the LES, including bronchodilators, calcium channel blockers (blood pressure meds), valium, nitroglycerine and opioids[14]	Foods, including fats, chocolate, caffeinated beverages, peppermint and spearmint, sugar, onions and alcohol can also weaken the LES[15]
Foods that irritate your stomach can trigger reflux. Common irritants include citrus fruits, tomato, spicy foods, carbonated beverages, coffee and high-lectin foods[16]	

In all these cases, the solution is to address the underlying problem, which would be to fix the hernia, treat the H. pylori infection, lose weight, quit smoking, minimize use of the offending drug (be sure to discuss alternatives with your doctor) and not eat the foods that are causing your LES to relax or that irritate your stomach.

OTC antacids and PPIs are entirely the wrong approach, regardless of the underlying cause, because none of the underlying causes of acid reflux have anything to do with excess stomach acid.

These drugs will reduce what little acid you have, leaving less to be regurgitated, but they basically ensure you'll never get better. What's worse, over time, low acid can contribute to a whole host of other health problems.

The Purpose of Stomach Acid

Stomach acid serves several important functions, such as breaking down proteins, killing ingested pathogens, ensuring optimal nutrient absorption and regulating the rest of the digestion process.

If you use acid blockers, you're compromising your entire digestive system, which can have downstream effects. For example, poor protein digestion increases your risk of food allergies.[17] As reported by A Midwestern Doctor, there are clear links between insufficient stomach acid and a variety of health conditions, the following in particular:[18]

Asthma	GI-related issues
Skin diseases	Depression
Gallbladder disease	Migraines
Macular degeneration	Osteoporosis
Autoimmune conditions, including but not limited to Celiac disease, Type 1 juvenile diabetes, Grave's disease (hyperthyroid), lupus, multiple sclerosis (MS), rheumatoid arthritis and ulcerative colitis	

Low stomach acid can also have a detrimental impact on your immune function by allowing harmful pathogens such as bacteria and viruses to enter your GI tract. For example, a 2021 systematic review[19] found that patients taking PPIs had a 77% higher risk of dying from COVID infection than those who did not take these drugs.

Low stomach acid has also been linked to impaired nutrient absorption, an 80% increased risk of stomach cancer,[20] 19% increased risk of death,[21] 28% increased risk of a major cardiac event,[22] 74% increased risk of kidney disease[23] (and a 142% increased risk of death for these patients), 37% increased risk for pneumonia[24] and a 33% increased risk for dementia.[25]

So, one of the take-home messages from this is that acid reflux is also a warning sign that other bodily systems may be adversely impacted. The good news is that all these related conditions can be improved by addressing the acid reflux the right way, which is to increase the acidity of your stomach so that the pH-sensitive esophageal sphincter can close properly.

What Causes Stomach Acid Insufficiency?

Before we address how to increase stomach acid, let's review why it happens in the first place. Stomach acid production is known to decrease with age, and diet likely plays an important role in that decline. Stomach acid is made from hydrogen and chloride, and processed foods frequently do not contain the dietary sources of these components.

Hydrogen-rich foods include fresh fruits, vegetables, proteins and whole grains,[26] while high amounts of chloride are found in salt, seaweed, rye, tomatoes, lettuce, celery and olives.[27]

Certain autoimmune conditions can also attack acid producing cells in your stomach, causing production to decline. H. pylori infections in your stomach will lower acid production as well. Mitochondrial dysfunction may also be a major part of the puzzle. As explained by A Midwestern Doctor:

> *"Stomach acid production is an energy intensive process (hence the cells which make stomach acid having a large number of mitochondria), and I have long suspected that mitochondrial dysfunction ... is partly responsible for declining stomach acid levels."*

Importantly, PPIs will shut down acid production, and the longer you're on them, the less acid your body will produce. As a result, it can be extremely difficult to stop using these drugs.

As soon as you stop taking them, you'll experience rebound, and the rebound won't stop until your stomach acid level is normalized and the LES starts closing properly, which in some long-term use cases can take up to two years.[28]

Talk to Your Doctor About Getting Off PPIs

Considering the dangers posed by PPIs, you do need to get off these drugs though. The best and safest way to do that is to work with your doctor to lower the dose you're taking while simultaneously implementing the following lifestyle modifications:

- Avoid reflux triggers and/or any food that irritates your stomach
- Avoid processed foods and sugar
- Eat a Mediterranean diet, focused on fruits, healthy fats, lean meats, nuts and vegetables. Research published in the Journal of the American Medical Association Otolaryngology — Head & Neck Surgery found a **Mediterranean diet was as effective as PPIs in treating acid reflux symptoms**[29]
- Reseed your gut with beneficial bacteria from traditionally fermented foods or a high-quality probiotic supplement
- Thoroughly chew each bite of food

Once you get down to the lowest dose of the PPI, you can start substituting with an over-the-counter H2 blocker like Pepcid (famotidine) which appears to be the safest of all the options out there. Then, gradually wean off the H2 blocker over the next several weeks.

Natural Remedies for Treating Occasional Reflux Problems

If you suffer from occasional heartburn, indigestion and other minor reflux symptoms, forgo the PPIs and OTC antacid medications and try one or more of the following nondrug alternatives instead:[30,31,32,33,34]

Aloe juice — The juice of the aloe plant naturally helps reduce inflammation, which may ease symptoms of acid reflux. Drink about one-half cup of aloe juice before meals. To avoid its laxative effect, look for a brand in which the laxative component has been removed.

Apple cider vinegar (raw, unfiltered) — Take 1 tablespoon of raw unfiltered apple cider vinegar in a large glass of water before or directly after meals.

Astaxanthin — When compared to a placebo, this potent antioxidant was found to reduce symptoms of acid reflux, especially for individuals with pronounced H. pylori infection.[35] The researchers concluded a daily dose of 40 mg of **astaxanthin** was effective for reflux reduction.

Baking soda — One-half to 1 teaspoon of baking soda (sodium bicarbonate) in an 8-ounce glass of water or orange juice will help neutralize your stomach acid and ease the burn of acid reflux. While I do not advise this as an ongoing remedy, it is effective on an "emergency" basis when you are in excruciating pain.

Ginger root — **Ginger** has a gastroprotective effect by suppressing H. pylori. It also accelerates gastric emptying which, when impaired, contributes to heartburn. Add two or three slices of fresh ginger root to 2 cups of hot water and let it steep for several minutes. Drink it about 20 minutes prior to your meal.

Sauerkraut — Consuming sauerkraut or cabbage juice will stimulate your body to produce stomach acid.

Glutamine — The amino acid glutamine has been shown to address gastrointestinal damage caused by H. pylori. Glutamine is found in many foods, including beef, chicken, dairy products, eggs, fish and selected fruits and vegetables. L-glutamine is widely available as a supplement.

Ripe papaya or a papain supplement — Papaya contains papain, an enzyme useful for breaking down both protein and carbohydrates.

Fresh pineapple or bromelain supplement — Bromelain is a proteolytic enzyme found in pineapple that helps digest proteins.

Pepsin supplement — Like bromelain, pepsin is a proteolytic enzyme involved in

protein digestion.[36]

Betaine HCl supplement — Betaine HCl is the hydrochloride salt of betaine, not to be confused with betaine or trimethylglycine (TMG). As noted in a 2020 review paper:[37] "... the most common recommendation for the use of betaine HCl supplements is usually implemented using an empirical test for low stomach acid whereby increasing doses of betaine HCl are given during sequential meals until such time as an uncomfortable sensation is noticed by the patient.

Along with improvements in symptoms of dyspepsia (or laboratory analysis of improved protein digestion), the lack of side effects acts as an empirical confirmation that low gastric acid production was contributing to poor digestion and/or dyspeptic symptoms."

Bitters — Bitters have a long history of use in herbal medicinal traditions to promote digestion and/or to relieve digestive complaints.[38]

Slippery elm — Slippery elm coats and soothes your mouth, throat, stomach and intestines, and contains antioxidants that may help address inflammatory bowel conditions. Because it stimulates nerve endings in your gastrointestinal tract, it is useful for increasing mucus secretion, which has a protective effect against ulcers and excess acidity.

Vitamin D — Vitamin D is important for your gut health. Once your vitamin D levels are optimized, you will benefit from your body's production of about 200 antimicrobial peptides that will help eradicate gut infections.

Zinc — Your stomach needs zinc to produce stomach acid, so make sure your body has the necessary raw ingredients. The recommended daily amount for adults is 8 to 11 mg. Zinc rich foods include oysters, lobster, beef, cashew nuts, beans and raw yogurt. A zinc supplement can be used if you rarely eat these foods.[39]

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