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More Proof Heartburn Products Are Dangerous

Analysis by Dr. Joseph Mercola | July 15, 2024

STORY AT-A-GLANCE

- Heartburn pain, commonly affecting nearly 60 million every month, is often described as sharp and burning, sometimes behind your breastbone and other times around your neck or throat
- Common heartburn medications available as prescription or over-the-counter have been associated with multiple health issues related to the reduction in acid production
- Specifically, proton pump inhibitors may increase your risk of stomach cancer
- Heartburn is often triggered from low acid production and may be addressed using natural strategies such as improving your gut microbiome, adding acid to your diet and using coconut oil

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Heartburn is a common condition and estimated to affect nearly 60 million Americans at least once a month.[1] The pain is often described as sharp and burning, sometimes behind the breastbone and other times moving around the neck or throat. A Norwegian research team[2] reported the incidence of people who experienced acid reflux at least once a week had increased by nearly 50% in the decade leading up to 2009.[3]

Occasional heartburn is not uncommon, but when the pain occurs frequently, or interferes with your daily routine, it may be a condition called gastroesophageal disease.[4] Your symptoms may be the result of a problem with your lower esophageal sphincter (LES) located between the stomach and esophagus. Normally, this sphincter

keeps stomach acid in your stomach, only opening when you're swallowing or to let you belch.[5]

When your LES allows gastric acid to rise into your esophagus you experience the symptoms of heartburn, since the lining of your esophagus is not designed to withstand the acidic pH of stomach acid. With continued exposure to acid, the cells in the esophagus begin to adapt and become more like cells found in your small intestines.[6] This is called Barrett's Esophagus and is a condition that increases your risk of developing esophageal cancer.

Previous research has found people taking a **heartburn medication** called proton pump inhibitors (PPIs), and who had infections with Helicobacter pylori (H. pylori), associated with the development of stomach ulcers, had a greater chance of developing cellular changes linked to stomach cancer.[7] Scientists have also determined people taking PPIs, even after the infection had cleared, had a greater potential for developing stomach cancer as compared to those who were never infected.[8]

PPIs May Increase Your Risk of Cancer

Researchers from University College London and The University of Hong Kong found the risk of developing stomach cancer more than doubled when an individual took PPIs. To factor the potential role the infection plays in the development of stomach cancer, the researchers compared the use of PPIs to reduce acid reflux against people treated with triple therapy to kill H. pylori and then with H2 receptor antagonists such as Pepcid, Tagamet or Zantac.[9]

Conventional medicine accepted triple therapy as the first line of defense against H. pylori in 2006. It consists of two antibiotics and a PPI to reduce acid secretion.[10] On average, the patients in the study were monitored for 7.5 years, until they developed cancer, died or the study completed. During this time, taking PPIs was associated with double the risk of developing stomach cancer, while taking an H2 antagonist was not linked to an increased risk.

Additionally, the researchers found those who took PPIs every day had close to four times the risk of stomach cancer, compared to those who took the drug once a week.[11] Dr. Wai Keung Leung, professor of gastroenterology at the University of Hong Kong, cautioned:[12]

> *"While PPIs are one of the most commonly used medications for treating reflux disease as well as dyspepsia, clinicians should exercise caution when prescribing long-term PPIs, even to patients who have H. pylori eradicated."*

According to the U.S. Centers for Disease Control and Prevention (CDC), nearly two-thirds of the world population are infected with the gram-negative bacterium, H. pylori,[13] but not all exhibit signs of the infection. This infection is believed to be the major cause of peptic ulcer disease and gastritis worldwide. PPIs may be prescribed for the treatment of heartburn symptoms, without the presence of peptic ulcers.

PPIs are also now available over-the-counter without a prescription, increasing the risk that using the medication long-term may increase your risk of stomach cancer. Heartburn may also be triggered by specific foods or mechanical challenges. These include:[14]

Overeating	Obesity	Pregnancy
Spicy food	Peppermint	Tomato
Citrus fruit	Garlic and onion	Chocolate
Coffee	Alcohol	

How Do PPIs Work?

PPIs are a class of drug designed to inhibit the proton pump in your cells and reduce the amount of acid produced. They are among the most widely prescribed medications, ranking as the ninth most prescribed drug in 2015[15] with $14 billion in annual sales.[16]

However, PPIs are not specific to stomach cells and stomach acid is not usually the primary trigger in chronic heartburn.

Any cell in your body that produces acid uses a proton pump. This means that PPIs will inhibit the production of acid in all cells and not just those in your stomach. Scientists at Stanford University and Houston Methodist Hospital in Texas believe this may be the trigger behind the variety of dangerous side effects associated with PPIs.[17] In effect, this hampers the ability of the cells to clear waste products and thus speeds damage and aging.

Cells use acid to clear end products of metabolism. When this acid is not present, a buildup of toxins results, which may lead to the development of significant health conditions.[18] Dr. John Cooke, chair of cardiovascular disease research at Houston Methodist, calls this a "smoking gun."[19]

While PPIs reduce the amount of stomach acid produced throughout the day, it is not excess acid that is the cause of heartburn. Physiologically, the opposite is more often true. Low acid production may lead to **bacterial overgrowth** in the stomach.

This results in changes in digestion of carbohydrates, producing gas. Consistent gas buildup in your stomach increases pressure on your LES, weakening the sphincter and releasing acid into your esophagus and creating the symptoms of heartburn. Long-acting drugs such as PPIs may actually increase your risk of heartburn over time and often lead to greater rebound heartburn when you stop taking the drug.[20]

Early Testing Found PPI Promoted Gastric Cancer

Although the featured study has found an association between PPIs and stomach cancer, with or without infection with H. pylori, initial studies in 1985 on omeprazole (Prilosec)[21] demonstrated an increased risk of gastric cancers in a rat model. In this study, female rats had a higher risk potential than males. At the time, this discovery generated some concern regarding the safety and delayed the development and approval of the drug.[22]

One developing pharmaceutical company, Astra, convinced regulatory authorities to continue with human studies, while two competing companies, Glaxo and SmithKline & French,[23] stopped their PPI drug development programs as their tests also demonstrated a risk of gastric cancer in animal models.

Scientists determined prolonged therapy with PPIs led to hypergastrinemia, an excess amount of gastrin in the blood. This resulted in hyperplasia of enterochromaffin-like cells, an increased risk factor for gastric cancer.[24] This hyperplasia was found in up to 30% of chronic users, especially prevalent in those infected with H. pylori.

Digestion Requires Acid

Digestion begins in your mouth and ends at your rectum. As food is broken into smaller pieces while you chew, it mixes with saliva, travels down your esophagus and into your stomach. Once in your stomach, it mixes with hydrochloric acid, which is required to break down food particles from which your small intestines can extract nutrients.

In other words, stomach acid is necessary for digestion. When you reduce the amount of stomach acid using PPIs, you increase your risk of heartburn, gastroesophageal reflux (GERD) and chronic indigestion. You may use a simple test at home to determine if your stomach acid levels are low, giving you the information needed to develop a natural plan to address your chronic pain. This will give you a rough indication of how much acid you produce.

Mix a teaspoon of baking soda in 8 ounces of cold water and drink it in the morning before eating or drinking anything else. The mixture of baking soda and hydrochloric acid in your stomach forms carbon dioxide gas, causing you to belch.

Time yourself for up to five minutes to determine how long it takes for gas to form. If you belch in two to three minutes, you likely produce adequate amounts of acid; earlier and repeated belching indicates excess acid. If you don't belch in the first five minutes, you likely don't produce enough acid.

PPIs Associated With Other Health Risks as Well

Hydrochloric acid and pepsin in your stomach are necessary to break down proteins for nutrient absorption. A reduction in acid formation reduces this absorption, increasing your potential for dysbiosis, an imbalance in your gut microbiome. Without the acid, proteins may ferment in your gut, becoming food for pathogens such as Clostridium difficile (C. difficile), Candida and H. pylori. This overgrowth can lead to leaky gut.

Secondary effects from leaky gut include difficulty losing weight, increasing neurological disorders and allergies. Results from a 2017 study suggests those taking long-term acid suppressing medications such as PPIs have a higher risk of developing intestinal infections from C. difficile and Campylobacter.[25] Although both infections can trigger abdominal pain and diarrhea, C. difficile may be more dangerous and is associated with morbidity and rising health care costs.

A rise in numbers of individuals diagnosed with chronic kidney disease (CKD) in past years may be attributed to the increasing numbers using PPIs to treat acid reflux. Researchers have found the rise is faster than would be expected from known risk factors, such as high blood pressure or Type 2 diabetes.[26] The authors note the increased risk of CKD was associated with PPI use and not the underlying cause of heartburn. H2 receptor antagonists did not show a similar association.

A large study carried out at Stanford University found those taking PPIs had a higher risk of experiencing a **heart attack**.[27] And, another study from Washington University shows long-term use of PPIs carries an increased risk of death from any cause.[28] The researchers examined medical records of 275,000 PPI and 75,000 H2 antagonist users.

Senior author, Dr. Ziyad Al-Aly, commented on the results, saying, "No matter how we sliced and diced the data from this large data set, we saw the same thing: There's an increased risk of death among PPI users." The use of PPIs is also associated with other health risks, including a reduced absorption of nutrients such as magnesium and vitamin B12, decreased resistance to infection and increased bone fractures.

How to Properly Wean From PPIs

Although PPIs do reduce heartburn in the short term, they also cause a rebound effect when you stop suddenly and increase your risk of other health conditions. If you have been using PPIs, it is important you NEVER stop cold turkey, but spend time allowing your body to detoxify and eliminate the drug from your system.

To minimize your risk of rebound acid effects, gradually reduce the dose of PPI you're taking. Once you're down to the lowest dose, start substituting with an over-the-counter H2 blocker, like Zantac or famotidine (Pepcid). These are the only two H2 blockers that are known to be safe. Do not take any other types of OTC H2 blockers.

Once you've been taking the H2 blocker for a couple of weeks, you may start weaning yourself off these drugs as well, while introducing the alternative options to reduce your heartburn outlined below.

Nourish your gut microbiome — Regular consumption of fermented foods help balance your gut microbiome, which can help eliminate H. pylori bacteria naturally.

Add acid — Although it may seem counterintuitive, heartburn is often triggered by low acid production. Drinking 3 teaspoons of raw, unfiltered apple cider vinegar in 6 to 8 ounces of fresh water before each meal may help digestion and reduce post-meal heartburn.

For a list of other alternatives that may help promote acid production see my previous article, "Acid Reflux May Respond Better to Foods Than Prescribed Pills." Sauerkraut or cabbage juice may stimulate the production of stomach acid and provide you with valuable bacteria to help balance your gut.

Work with gravity — Heartburn tends to get worse during the night and right after you lie down. Staying upright or seated for at least three hours after eating may reduce your risk of heartburn. Some find relief by elevating the head of the bed using blocks sold for that purpose so the bed doesn't slip and cause injury. Avoid stacking pillows

as this may increase pressure on your LES, triggering heartburn, and cause poor alignment of your neck and spine.

Ginger root tea — Ginger root tea has traditionally been used against gastric disturbances as the gastroprotective effect comes from blocking acid and suppressing H. pylori. You can make tea by simmering three slices of raw ginger root in 2 cups of water for 30 minutes. Drinking the tea 20 minutes before your meal may help prevent heartburn from developing.

Avoid tight-fitting clothing — Tight clothing increases pressure on your LES and increases the risk of an acid leak into your esophagus.

Maintain a healthy weight — Excess weight around your middle increases excess pressure on your LES. Even losing 15 pounds can make a positive difference in the symptoms you experience.

Avoid your triggers — Some experience food allergies or triggers that increase your risk of heartburn. Consider eliminating caffeine, alcohol and nicotine products and track the foods that increase your personal risk. It may take time to determine your triggers, but it is well worth the effort.

Organic coconut oil — Coconut oil has antibacterial effects and helps reduce overgrowth of bacteria in your stomach. The oil also helps to soothe your esophagus on the way down and is a healthy fat that helps protect your health.

Consider starting with 1 teaspoon to see how your body responds. Common side effects include a headache and slight nausea. Gradually work up to 3 tablespoons a day for your best results. You may also try adding 1 tablespoon to a cup of tea or coffee.

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