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Heartburn & GERD

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Orange Peel Extract

Because there are so many prescription and over-the-counter heartburn medicines to choose from today, a person could easily think all Americans suffer from it.

This assumption is not that far-fetched. More than 60 million Americans experience heartburn at least once a month and more than 25 million suffer heartburn symptoms every day, according to a 1998 Gallup Organization national survey. The good news is, a natural product that relieves heartburn pain is now available. Orange peel extract, made from fresh orange peels, works safely and effectively and without side effects. The great majority of people who have used orange peel extract report huge reductions in their heartburn pain.²



Q. What is heartburn?

A. Heartburn is the pain caused by the splashing up of fluids from the stomach into the esophagus (the tube that carries food from the mouth to the stomach). The stomach secretes fluid made of hydrochloric acid, an enzyme called pepsin, and sometimes bile (which is created in the liver). Stomach fluid helps digest the food we eat. The hydrochloric acid in stomach fluid helps prevent bacteria from growing in the stomach and intestines. It also helps with vitamin and nutrient absorption. Hydrochloric acid is very strong and corrosive. However, the stomach has a special lining that protects it from the acid and other stomach fluids.^{3,4}

The end of the esophagus (where it connects to the stomach) is actually a circular band of muscle called the lower esophageal sphincter (or LES).

The LES is the stomach's gatekeeper, using pressure to open and close. When food travels from the mouth down through the esophagus, the LES opens, allowing food to enter the stomach. When the LES narrows and closes, it keeps food from leaving the stomach and going back up the esophagus.³

Sometimes, the LES opens at the wrong time. When this happens, hydrochloric acid and other stomach fluids splash up into the esophagus. While the stomach has a special lining to protect it from the hydrochloric acid, the esophagus does not. As the stomach fluid enters the esophagus, the result is burning pain.⁴

Q. What's the difference between heartburn and ulcers?

A. A stomach ulcer is a sore or erosion in the stomach lining or intestine. Stomach ulcers are most often caused by bacterial infection of the stomach (caused by *Helicobacter pylori*) or chronic use of aspirin or other nonsteroidal anti-inflammatory drugs (NSAIDs).⁵

Heartburn and ulcers are in the same family of acid-related maladies. They also may be aggravated by the same factors and share some symptoms and treatment. Both of these health problems can become serious if left untreated.^{3,5}

Q. What's the difference between heartburn and GERD?



A. If you suffer from persistent heartburn two or more days a week, the problem may be gastroesophageal reflux disease (GERD). That can be serious because, over time, the reflux of stomach acid can erode or wear away the delicate esophagus lining (erosive esophagitis). Some people with esophagitis develop scar tissue, which narrows the esophagus' lining, causing problems swallowing food or pills.⁶

GERD also can contribute to asthma, pneumonia, hoarseness, and chronic cough.^{3,4,6} Acid refluxed from the stomach into the mouth also can erode teeth.^{7,8} Also, people who have GERD have a higher risk of developing Barrett's esophagus, a condition marked by severe damage to the esophagus lining and linked to an increased risk of esophageal cancer.¹⁰

A recent study discovered GERD is a risk factor for cancer of the larynx (voice box) and pharynx (throat).¹⁰

Licensed health care practitioners often make a GERD diagnosis when heartburn happens frequently or is particularly severe. While expensive X-ray procedures can accurately diagnose GERD, the diagnosis most often is made from patient reports.

Q. What causes heartburn?

A. Many factors can cause heartburn to develop.

While it may seem like a simple hollow tube, the esophagus has an important function, called esophageal peristalsis. The esophagus is made up of muscle fibers that contract when you swallow. These rhythmic waves of peristalsis move food down the esophagus and into the stomach. Slowdown of esophageal peristalsis often occurs as we age. When peristalsis slows, so does LES functioning and heartburn can then develop.¹¹⁻¹³

Heartburn sometimes happens after

HEALTH FACT:

Some people experience discomfort of heartburn after eating citrus fruits, including oranges. This is caused by the citric acid present in the fruit; this acid is not present in the orange peel extract d-limonene.

eating a big meal. Large meals overflow the stomach and can force acid past even a strong LES.³ Lying down right after eating also causes heartburn. Even bending over or lifting heavy objects can bring on the uncomfortable burning

sensation.¹⁴

Certain foods, such as citrus fruits, chocolate, tomatoes or tomato-based products, raw onions, garlic, black pepper, vinegar and fatty or spicy foods may cause the LES to relax and open. Beverages such as citrus juices, and caffeinated, carbonated, and alcoholic beverages have similar effects.¹⁵

Studies show cigarette smoking relaxes the LES, making smokers more prone to heartburn.^{16,17}

Q. Who else is prone to developing heartburn?

A. Overweight people often experience heartburn. Abdominal fat leads to a higher pressure in the abdomen.¹⁶ Pregnancy causes a higher pressure in the abdomen and there also is evidence that changing hormone levels cause relaxation of the muscle valve. More than 25% of pregnant women experience heartburn at some time in their pregnancy.^{18,19}

People who have hiatal (pronounced high-Ay-tul) hernias often have heartburn. This condition occurs when a portion of the stomach slides above the diaphragm, the thin muscle separating the stomach from the chest. The hernia may allow food and acidic stomach fluid to flow back into the esophagus, causing heartburn.²⁰ While heartburn is a common complaint, it's certainly not a trivial one. Heartburn hurts. It can interfere with sleep and keep us from enjoying our favorite foods. And, while numerous heartburn remedies are available, none cure the problem and all have side effects, some potentially serious.

Q. What side effects do many heartburn medications have?

A. Some interfere with vitamin and calcium absorption, block digestive activities, and shut down stomach secretions—and none cure the problem; they only relieve heartburn pain.

While some heartburn medications work for some people some of the time, there's a lack of consistent symptom relief.

Many people with heartburn switch from brand to brand, trying to find the one product that takes away their pain consistently.¹

Antacid products use sodium bicarbonate, aluminum hydroxide, magnesium hydroxide, calcium carbonate, alumi-

num phosphate, or a combination of these substances to neutralize stomach acid. Thus, hydrochloric acid is no longer able to perform its vital functions: digesting food, inhibiting bacterial growth, and absorbing vitamins and nutrients.^{3,4} When hydrochloric acid is neutralized, the stomach responds by producing even more acid. As more acid is produced, more heartburn follows, and a vicious cycle known as "acid rebound" begins.²¹

Antacids can have serious side effects. Antacids can make the stomach more vulnerable to food poisoning. Normally, *Vibrio vulnificus*, a potentially fatal bacteria found in raw shellfish, is killed by stomach juices. But, the bacteria can survive up to two hours in the presence of antacids, causing severe vomiting, diarrhea, and stomach cramps.²³

Antacids interact with or prevent the absorption of many medications including:

- allopurinol
- aspirin, salicylates
- benzodiazepines
- blood thinners
- chloroquine
- corticosteroids
- diabetic medicines
- digoxin
- ethambutol
- flecainide
- iron
- isoniazid
- nitrofurantoin
- penicillamine
- phenothiazines
- phenytoin type drugs
- quinidine
- tetracycline
- thyroid medications
- ticlopidine
- ulcer medications^{23,24}

H2-receptor blockers, such as Tagamet®, are a different type of heartburn medication. H2-receptor blockers sharply decrease hydrochloric acid production, impairing vitamin B12 and calcium absorption from food. Vitamin B12 in food is attached to proteins. Stomach acid separates them and allows the B12 to be absorbed. Without adequate stomach acid, the B12 remains

attached to the proteins.²⁴

Proton pump inhibitors (PPIs) work by inhibiting the hydrochloric acid production. In fact, they almost completely shut down the stomach's ability to produce acid.²⁵

Nexium®, Prevacid®, and Prilosec® are some of the most prescribed medications in the U.S. In 1999, Americans spent more than \$7 billion on Prilosec and other PPIs. While PPIs may be safe for short-term use, the long-term consequences of total hydrochloric acid blocking are unknown.²⁶ The package insert in the Physicians' Desk Reference states these medications are only for short-term use, but they are generally being used for long periods of time.

In contrast to all these remedies, orange peel extract is a safe and effective option for complete resolution of symptoms.

Q. How does orange peel extract work?

A. While this compound has been studied for quite some time, new information on how orange peel extract works is continually being discovered. Researchers have developed several possible theories for the way orange peel extract stops heartburn. Scientists believe orange peel extract helps esophageal peristalsis, moving food through to the stomach effectively and efficiently. Food doesn't stay in the esophagus longer than required, lessening the chances for heartburn to develop.²

Orange peel extract also may work as a surfactant. A surfactant is a substance that reduces the surface tension of liquids. Orange peel extract may reduce the surface tension of the liquid contents in the stomach, decreasing the potential for the fluid to splash up into the esophagus.²

Q. How much orange peel extract should I take?

A. I recommend what was used in the studies: 1,000 mg of orange peel extract every other day for 20 days. Look for a product standardized for a minimum of 98.5% (the highest purity) of d-limonene, a compound found in orange peel extract.²

Q. How does orange peel extract cure heartburn?

A. Orange peel extract has been studied in several clinical trials. In many of the studies, participants were asked to rate their heartburn for severity and frequency. Using a pre-study question-

naire, heartburn severity was rated on a scale from 1-10 (1 = mild and 10 = severe), as was heartburn frequency (1 = occasional and 10 = all the time).²

Participants took 1,000 mg of orange peel extract and were asked to rate their heartburn every day using a 1-to-10 scale (1 = relief and 10 = no relief). Heartburn relief ratings were taken while participants took the extract and several times after stopping.²

Almost 90% of participants reported resolution of heartburn symptoms two weeks (14 days) after starting orange peel extract. Almost one-third of participants experienced resolution of heartburn symptoms as early as the second day of the study.²

What's more, even though participants stopped taking the orange peel extract, they reported symptom resolution on days 21, 28, and 35. That means they hadn't experienced heartburn even two weeks after they stopped taking orange peel extract.

These study participants had an average pre-study rating of their heartburn of 7.8 and a frequency rating of 7.3. After only 20 days of taking orange peel extract, almost all these heartburn sufferers experienced no more heartburn.²

Occasionally, after completing the 20-day treatment period, some people may experience mild heartburn after eating foods they had previously avoided. The study scientists concluded these individuals overindulged on these "forbidden" foods. Taking a single orange peel extract capsule as needed usually solves this problem.

Q. Is orange peel extract safe?

A. Orange peel extract is an all-natural product and its safety has been evaluated.²⁷ Always follow the recommended dosages on the label for best results.

Pregnant or nursing women shouldn't take orange peel extract. You shouldn't take it if you have an ulcer or suspect you have an ulcer, because a burning and irritating sensation may result. Until clinical trials on all age groups have been completed, orange peel extract shouldn't be given to children.²

In fact, orange peel extract has been used in cancer studies for many years with no adverse effects.²⁹

Q. Does orange peel extract affect cancer?

A. Orange peel extract has pronounced cancer preventative activity. Based on several studies, researchers have deter-

mined orange peel extract inhibits the way cancer cells divide and grow. In laboratory studies, orange peel extract prevented breast, skin, liver, lung, pancreatic, colon and stomach cancers.²⁹⁻³³

A clinical study examined the safety of orange peel extract in cancer patients. A group of 32 cancer patients took orange peel extract for 21 days. Ten additional breast cancer patients took orange peel extract for 15 days. No toxicities were demonstrated in any of the patients. Analysis of the patient's blood levels revealed orange peel extract was well absorbed. The study's authors urged further research of orange peel extract and cancer prevention.²⁸

Some important last notes

Frequent and persistent heartburn can signal other more serious conditions and may eventually lead to complications. You should consult a licensed health care professional if you:

- Suffer from heartburn symptoms even after taking orange peel extract for the full 20 days or other heartburn remedies.
- Have severe hoarseness or wheezing.
- Notice swallowing is painful or difficult, especially with solid foods or pills.
- Experience vomiting for more than three days or notice weight loss that happens without dieting.
- Find your discomfort interferes with your lifestyle or daily activities.
- Notice your heartburn symptoms become more severe over time.

The following conditions may be associated with serious conditions other than heartburn, including heart attack. Therefore, get medical help immediately if you experience any of the following:

- Chest pain accompanied by pain in the neck, jaw, arms or legs, shortness of breath, weakness, irregular pulse or sweating.
- Continuous nausea, vomiting, or diarrhea.
- Extreme stomach discomfort.
- Vomiting of bloody or black material.
- Black or bloody bowel movements.

Conclusion

Heartburn is a serious problem for millions of American. We spend literally billions of dollars trying to ease our burning pain. Orange peel extract offers a safe and effective option for relieving heartburn pain.

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