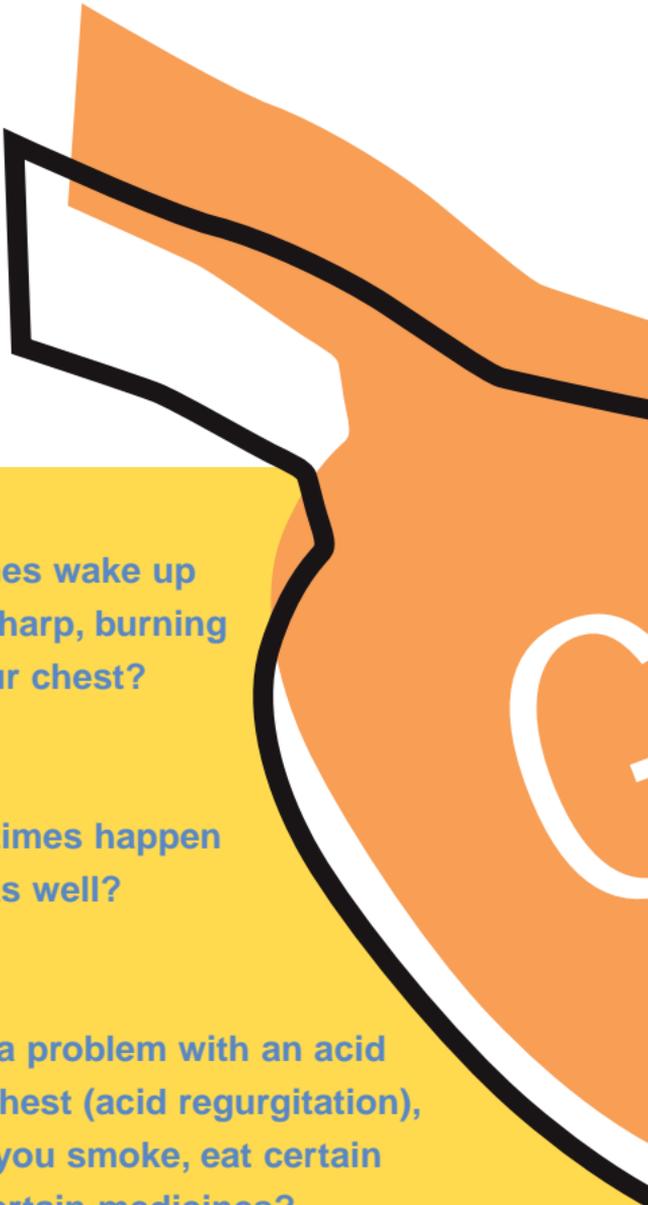




HEARTBURN!
HOW TO GET IT
OFF YOUR CHEST



Do you sometimes wake up at night with a sharp, burning sensation in your chest?

Does this sometimes happen during the day as well?

Or do you have a problem with an acid feeling in your chest (acid regurgitation), especially after you smoke, eat certain foods, or take certain medicines?

If you have any or all of these symptoms, you may be one of more than 60 million people in the United States who suffer from a common gastrointestinal problem known as heartburn, a common symptom of GERD (gastroesophageal reflux disease). About 7% of all Americans suffer from it every day; twice as many have it weekly, and slightly more than that number have it once a month. Pregnant women are especially troubled by it.

On the other hand, it's possible that your heartburn may be a symptom of a more serious problem.

A stylized illustration of a human stomach in orange, outlined in black. The text "GERD?" is written in large, white, sans-serif capital letters across the middle of the stomach. The background is a solid yellow color.

GERD?

Here's what happens inside
when you have GERD

One of the most common gastrointestinal disorders, GERD results from the backing-up (or reflux) of the contents of the stomach into the esophagus. When these highly acidic contents enter the esophagus, they can cause a severe burning sensation and difficulty in swallowing. Some people who have GERD may have no symptoms at all; others may have unusual symptoms such as a painful tightening in the chest that might be mistaken for a heart problem. Patients with GERD may have frequent and extended episodes of reflux, usually at night.

Heartburn or heart attack?

Unfortunately, it's sometimes hard to tell the difference. In general, if your pain occurs after a meal, it is probably just heartburn. When you lie down, stomach acid can leak up into the esophagus, so heartburn often occurs then, too. But pain after physical activity is more likely to be actual heart pain. If you have a chest pain that seems different from your usual heartburn, see a doctor at once or go to an emergency room.

What you can do about GERD

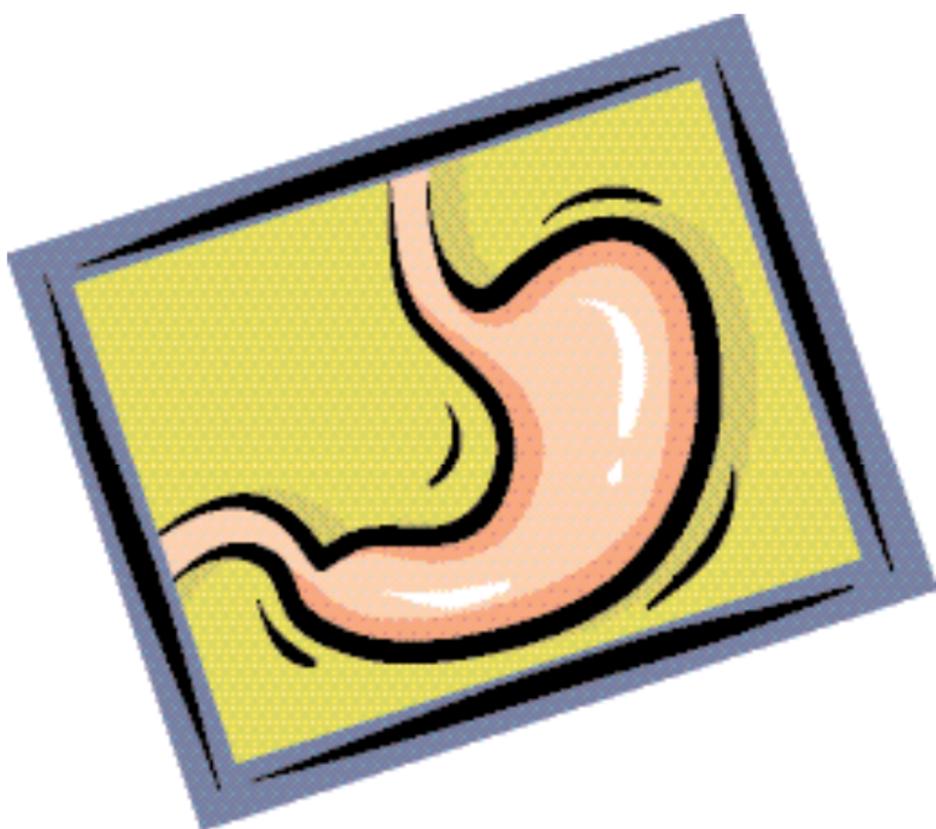
If you have occasional heartburn and find that over-the-counter medicines ease your symptoms, you may need no further help. But if you find that you are taking more and more of these medicines without relief, or if you have severe, frequent, or prolonged symptoms that last longer than 4 weeks, you should see a doctor. (These symptoms include not only heartburn, but also difficulty swallowing, acid regurgitation, or angina-like chest pain.) If your doctor decides that your symptoms are typical of mild GERD, he or she may simply recommend an over-the-counter medicine. If that medicine relieves your symptoms, it may be all you need.

HEART

On the other hand, if the doctor finds that you have a serious case of GERD, he or she will probably give you a prescription for another kind of medicine, to be taken either in place of—or sometimes along with—an over-the-counter medicine.

Because there can be serious complications from GERD, a major goal of treatment is not only to prevent the symptoms, but to heal the inflamed esophagus and to avoid other complications before they start. You may be urged to make changes in the way you live—for example, quitting smoking—to help prevent these complications. In serious cases, in addition to prescription medicines and lifestyle changes, surgery may be considered.

This brochure has been designed to give you the latest expert recommendations on treating the symptoms of GERD.



The causes of reflux

The human body is designed to speed the flow of food through the digestive system at a fairly predictable pace. A muscle called the lower esophageal sphincter, located where the esophagus joins the stomach, normally prevents stomach contents from backing up. But in the case of GERD, this muscle loses its tone and allows the contents of the stomach—having been mixed with harsh acid—to back up and re-enter the esophagus. This is the most common cause of GERD. Because the esophagus is not equipped to deal with this irritating mixture, inflammation and burning pain—and, in some severe cases, serious harm—may result.

Smoking and certain foods can cause heartburn. For example, fatty foods, cheese, peppermint, chocolate, spearmint, alcohol, coffee, and carbonated drinks can promote reflux. Spicy foods like pizza or chili can irritate the passageway, making symptoms worse. Tomatoes, orange juice, and lemon juice can also irritate the esophagus.

Aspirin and some other pain medicines can worsen symptoms. Other medicines—such as nitrates and calcium channel blockers—can also promote reflux. And being overweight may also affect heartburn.

External factors

- Diet
- Medicine
- Smoking

Saliva

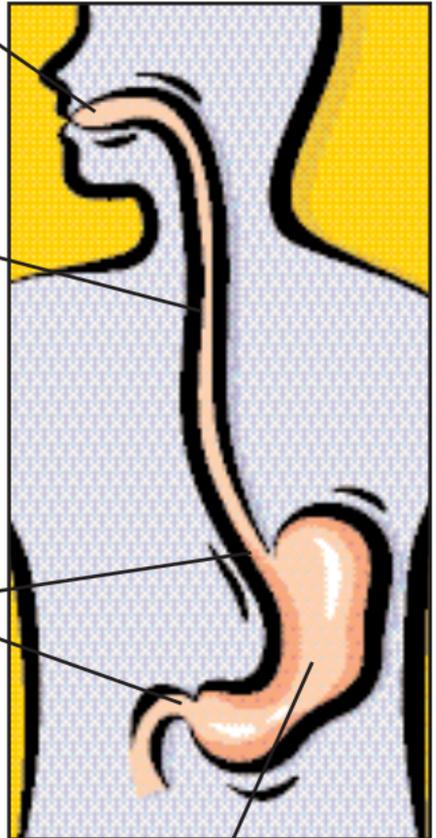
- How much or how little

Movement through esophagus

- Gravity
- Lower esophageal sphincter (muscle at base of esophagus)

Natural barriers preventing reflux

- Sphincter in lower esophagus
- Pressure favoring downward movement
- Pylorus (muscle at bottom of stomach)
- Duodenum (upper tip of small intestine)



Stomach emptying

- Normal, rhythmic pace
- Spontaneous movement of contents through the stomach

Refluxate (content that backs up abnormally)

- Acid
- Pepsin

What the specialists have to say

Doctors have not always agreed about the best way to treat GERD. Many past studies of GERD treatments were too small or did not meet accepted scientific standards. And no official team of experts had stepped in to examine all the evidence from the best studies in order to make better recommendations for treatment.

Fortunately, all that has now changed. **The American Gastroenterological Association (AGA)**, which is the national professional organization of doctors who specialize in gastrointestinal diseases, recently appointed a panel of experts to review research and other evidence concerning treatment of GERD. This panel of nine professional experts, chaired by Walter L. Peterson, MD, of the University of Texas Southwestern Medical Center in Dallas, was selected from outstanding medical institutions across the nation. Based on this panel's findings, doctors who treat GERD—including primary care physicians and gastroenterologists—now have a series of specific recommendations for helping patients with GERD.



Non-drug therapies for GERD

Although there are effective medicines—both prescription and over-the-counter—for GERD symptoms, there are also non-drug therapies. One of these is to change your lifestyle: losing weight, quitting smoking, avoiding certain foods, and switching to medicines that don't cause symptoms, for example. Unfortunately, for many people, lifestyle changes alone won't control symptoms. For these people, active treatment is needed in addition to lifestyle change. This usually includes over-the-counter or prescription drugs and sometimes surgery or other therapies.

Over-the-counter medicines sometimes do the job all by themselves

The most common over-the-counter medicines used for GERD symptoms are antacids, alginate/antacid combinations, and acid reducers known as H₂ receptor antagonists. There is also a product available that combines an acid reducer and an antacid into a single medicine. Overall, after viewing the existing studies of all these medicines, the panel of experts concluded that over-the-counter medicines are effective for preventing and quickly relieving mild-to-moderate GERD symptoms. With varying degrees of effectiveness, they also reduce the frequency and severity of symptoms. These medicines were at least partly effective for 60% to 70% of patients in the various studies. The panel noted that a combination medicine consisting of an H₂ receptor antagonist and an antacid is more effective at relieving symptoms than either component used alone.

As a result of their evaluation, the panel recommends over-the-counter medicines for rapid, effective, and safe relief of episodes of heartburn for periods up to 4 weeks. For frequent heartburn that lasts longer than 4 weeks, the panel recommends that you see your doctor.

Prescription drugs: proton pump inhibitors

The most common prescription drugs used to treat GERD are known as proton pump inhibitors, or PPIs. These drugs greatly reduce the production of stomach acid. There are several different PPIs: lansoprazole, omeprazole, pantoprazole, rabeprazole, and esomeprazole. PPIs control GERD and its moderate-to-severe symptoms for most users. The panel of experts compared these drugs with each other by reviewing past research on patients who suffered from a complication of long-term GERD called erosive esophagitis. The panel concluded that for most patients, standard doses of these drugs resulted in rates of healing and remission that were all about the same.

Surgery

In addition to over-the-counter and prescription medicines, various surgical procedures are used in patients with serious cases of GERD. While surgery often works well, some patients may continue to need medicine. In addition, there are experimental procedures whose effectiveness over the long term has not been proven.

What about cancer?

Many complications can result from long-term GERD, including erosion and inflammation of the esophagus (esophagitis), and a serious condition known as Barrett's esophagus (changes in the cells of the lower esophagus). In rare cases, Barrett's esophagus can develop into cancer. However, it is reassuring that most patients with Barrett's esophagus will never develop cancer. By carefully analyzing published studies, the panel of experts found that the risk of cancer (adenocarcinoma) in patients with Barrett's esophagus is much lower than the medical community had previously thought.

Can GERD cause asthma, cough, or other pulmonary illness?

Many studies have found that there is some connection between GERD and pulmonary symptoms such as asthma, cough, or bronchitis. But there is no proof that GERD actually causes pulmonary illness even though GERD is very common in patients who have pulmonary symptoms.

How your pharmacist and doctor may help

GERD is a chronic illness, and if you are like many people with GERD symptoms, you may first seek advice from your pharmacist. Your pharmacist can help in many ways. One way may be to encourage you to keep a written record of your symptoms, specifically how often they occur and how severe they are. Use the diary in the back of this brochure to keep track of your symptoms. This record can be invaluable to your doctor, if your symptoms persist—enabling him or her to gain insight into your illness. Your pharmacist can also evaluate all medicines that you are taking—both prescription and over-the-counter—to determine whether your symptoms may be triggered by a drug interaction. He or she can also direct you to the most appropriate over-the-counter medicines, or—depending on your particular situation—you may be advised to see your doctor. As explained earlier, your doctor may in turn recommend long-term treatment with prescription medicines, either instead of or in addition to over-the-counter medicines. Or, depending on your situation, he or she may refer you to a gastroenterologist.



1
If you have the classic symptoms of GERD, first try an over-the-counter medicine: an antacid, H₂ receptor antagonist, or a combination of the two.

If this works to control your symptoms, continue with it; you may need no further therapy.

What's the bottom line on how to treat GERD?

2
If you have severe, frequent, or prolonged symptoms that last longer than 4 weeks, you should consult a doctor. (These symptoms include heartburn, difficulty swallowing, acid regurgitation, or angina-like chest pain.)

3
After a physical evaluation by your doctor, you may be prescribed PPI therapy either with or in place of over-the-counter therapy.

If this works to control your symptoms, continue this therapy.

If this does not work, you may be referred to a specialist (gastroenterologist) for further evaluation and testing.

Heartburn Diary

Week 1	1st time	2nd time	3rd time	4th time
My symptoms				
Medicine I took				
My level of relief	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

1 = No relief 5 = Total relief

Week 1	1st time	2nd time	3rd time	4th time
My symptoms				
Medicine I took				
My level of relief	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

1 = No relief 5 = Total relief

Week 1	1st time	2nd time	3rd time	4th time
My symptoms				
Medicine I took				
My level of relief	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

1 = No relief 5 = Total relief

Week 1	1st time	2nd time	3rd time	4th time
My symptoms				
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1 = No relief 5 = Total relief



Founded in 1897, the American Gastroenterological Association is one of the oldest medical specialty societies in the United States. Its members include physicians and scientists who research, diagnose, and treat disorders of the gastrointestinal tract and liver. Representing almost 13,000 gastroenterologists worldwide, the AGA serves as an advocate for its members and their patients, supports gastroenterology practice and scientific needs, and promotes the discovery, dissemination, and application of new knowledge leading to the prevention, treatment, and cure of digestive and liver diseases.

AGA is solely responsible for the content of this brochure.

For more information on heartburn and GERD,
go to www.gastro.org

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