

## *An Integrative Approach to GERD (Gastroesophageal Reflux Disease)*

### **What is GERD?**

Gastroesophageal Reflux Disease is a condition that causes frequent heartburn (a burning feeling behind the breastbone) or damage to the lining of the esophagus (the tube that carries food between the throat and stomach). It occurs when stomach contents, including acid, which normally move forward through the body, flow back into the esophagus. GERD is common. About 15-20% of people in the United States have heartburn or acid reflux at least once a week. Seven percent of people experience those symptoms every day.

### **What are the symptoms of GERD?**

A variety of symptoms occur with GERD. Frequent or continuous heartburn is the major symptom. Other symptoms include acid reflux, nausea, vomiting, chest pain, hoarse voice or loss of voice, cough, and difficulty swallowing. If GERD is not treated, the esophagus can be injured over time. It can become painful or narrower. The cells lining the esophagus may become abnormal. This can lead to the development of cancer.

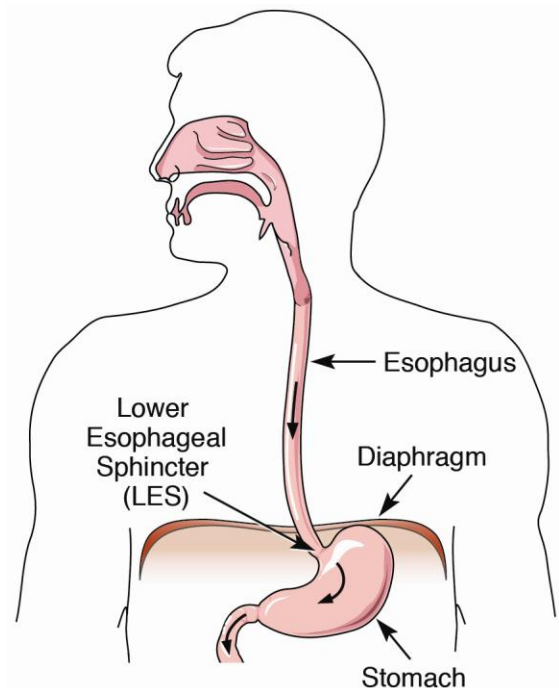
### **What causes GERD?**

The place where the esophagus joins the stomach is called the lower esophageal sphincter (LES). The LES acts like a gate between the esophagus and the stomach. It blocks stomach contents from flowing back into the esophagus. The most common cause of GERD is due to changes to the LES "gate." The "gate" may become "loose" or relax at the wrong time.

Symptoms of GERD may also result from increased pressure in the belly. Pressure can be caused by being overweight or pregnant, having abnormal fluid in the belly, or even by wearing tight clothes. In addition you might feel symptoms when the stomach contents are near the LES. This occurs when you are lying down, bending over, or if you have a hiatal hernia (a condition that occurs when the stomach pushes up through the diaphragm). Not having enough saliva can cause symptoms. Emotional stress may cause GERD to be worse, especially for people with high levels of anxiety.

### **How is GERD diagnosed?**

A clinician usually diagnoses GERD based on the symptoms a patient reports.

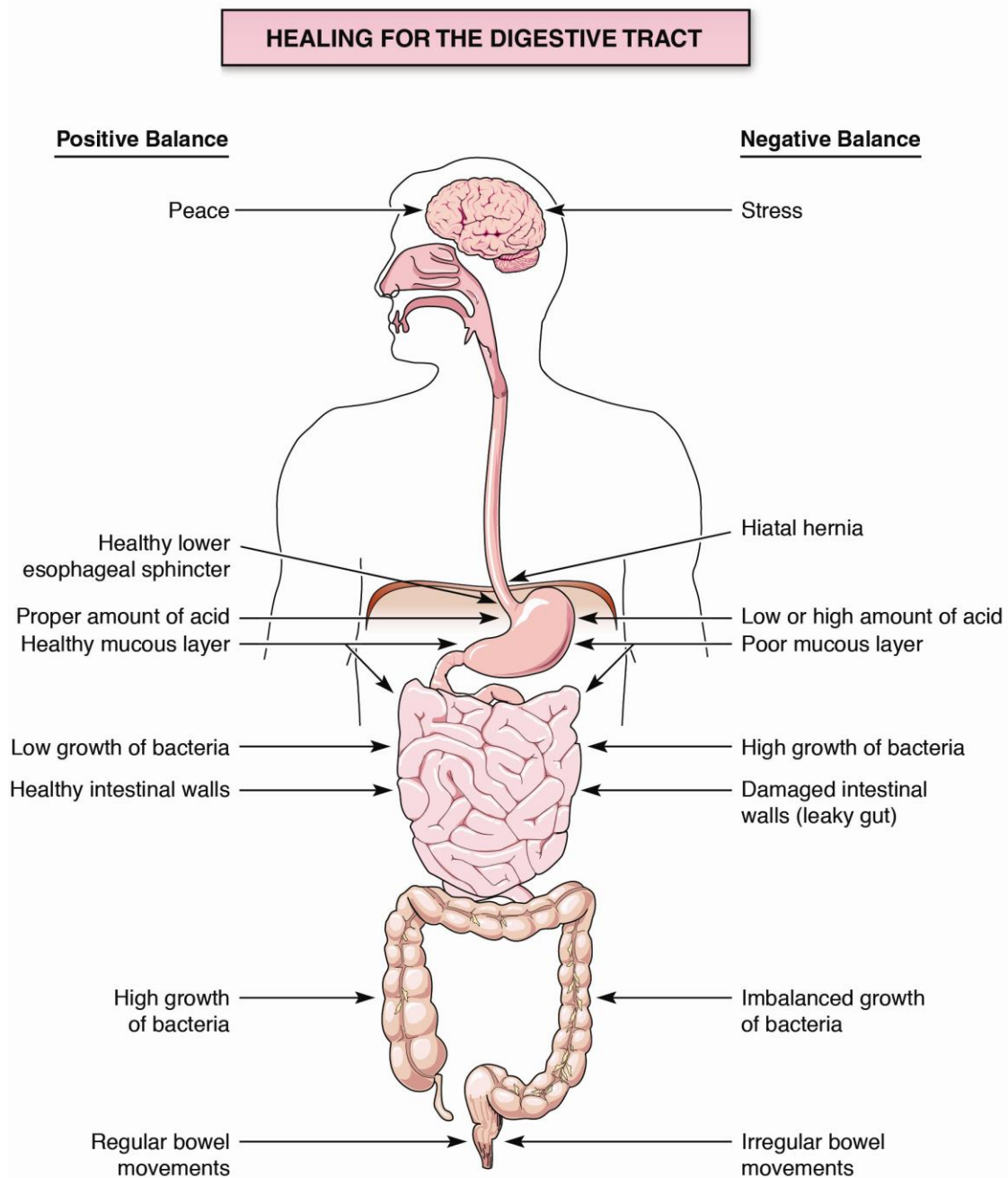




## Gastroesophageal Reflux Disease

### **What is an integrative approach to treating GERD?**

Integrative medicine involves a holistic approach to care. It may use a combination of both traditional and complementary therapies. These therapies are based on the best available research and clinical experience. Integrative approaches for treating GERD involve: 1) lifestyle changes, 2) nutrition and exercise, 3) herbal medicine, 4) medications, 5) mind-body therapy, 6) traditional Chinese medicine, and 7) surgery.



### PATIENT HANDOUT

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**1. Lifestyle**

When GERD is mild, the first approach is to make changes in your lifestyle. This can improve or even eliminate symptoms. For example, symptoms may improve if smokers quit and obese patients lose weight. See Table 1 for a list of things that tend to cause the LES gate to become too relaxed. Try to avoid them as much as possible. If you have symptoms while in bed, raise the head of your bed four to six inches by using blocks under the bed posts. (Note: you can make GERD worse by using extra pillows to raise your head, because this may increase the pressure on your belly). Melatonin is another possible helpful nighttime remedy. Melatonin may help the LES work better. The dose is 2.5 milligrams. Small studies have found a combination of melatonin, vitamins and amino acids, either alone or along with prescription medication called proton pump inhibitors (PPIs), have helped people with GERD. More research is needed.

**Table 1: Factors that Relax the LES**

| <b>FACTOR</b>                          | <b>EXAMPLES</b>  |
|--|--|
| <b>Dietary supplements</b>             | <ul style="list-style-type: none"><li>• arginine</li><li>• herbs used for gas in the stomach such as peppermint and spearmint</li><li>• essential oils (high doses)</li></ul>  |
| <b>Foods/Beverages</b>                 | <ul style="list-style-type: none"><li>• alcohol</li><li>• chocolate</li><li>• coffee (especially with caffeine)</li><li>• cow's milk</li><li>• fat</li><li>• orange juice</li><li>• spicy foods</li><li>• tea</li><li>• tomato juice</li></ul> |
| <b>Lifestyle</b>                       | <ul style="list-style-type: none"><li>• smoking</li></ul>  |
| <b>Medications</b>                     | <ul style="list-style-type: none"><li>• Check with your clinician about any medications you take or plan to take.</li></ul>  |
| <b>Physical</b>                        | <ul style="list-style-type: none"><li>• too much acid</li><li>• after meals</li><li>• stomach contents not moving through body</li><li>• a blockage between the stomach and the small intestine</li></ul>                                      |
| <b>Trauma/irritation/miscellaneous</b> | <ul style="list-style-type: none"><li>• red, irritated esophagus</li><li>• scleroderma-like diseases (causing hardening or thickening of body tissue)</li><li>• damage from surgery</li></ul>  |



## Gastroesophageal Reflux Disease

### 2. **Nutrition and Exercise**

Both exercise and nutrition can reduce GERD symptoms. If you have GERD, try to eliminate the foods, drinks, and other substances listed in Table 1 for at least two weeks. Pay close attention to your symptoms. If your symptoms improve, you can either 1) continue to avoid these things, or 2) each week add a different food or item back into your life. Watch closely to see if any of your symptoms recur. See our handout [GERD Elimination Diet](#) for more information.

Diets high in fiber seem to decrease GERD. Most experts recommend eating fewer foods that contain cholesterol, saturated fatty acids, and total fat if you have GERD. Studies, however, have shown mixed results. It may be that heavier body weight, rather than fat in the diet per se, causes GERD. Studies also show mixed results regarding drinking alcohol or coffee. Some studies found more GERD symptoms with alcohol and coffee, some showed less, and others showed no difference.

Regular activity is important for the health of your body and to aid in digesting your food. People who do physical activity regularly during their leisure time seem to have fewer GERD symptoms. It is better to exercise during leisure time rather than during the workday. This may be because people are eating and exercising within a short span of time. Exercising right after you eat increases your chance of developing GERD. Some people who exercise strenuously, especially running, weight lifting, and cycling, may actually have an increase in GERD. This may be due to decreased blood flow in the digestive system, increased contractions of the esophagus, and more pressure on the LES.



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### 3. **Herbal Medicine**

- **Licorice.** Some herbal medicines can be used to soothe and protect irritated tissues and promote healing. Licorice (*Glycyrrhiza glabra*) is one example. It can be used for GERD, stomach upset or pain, and ulcers. For long-term use, it should be prescribed as deglycyrrhizinated licorice (DGL) in order to avoid side effects. A common dose is two to four 380 milligram lozenges before meals.
- **Slippery Elm.** Slippery elm (*Ulmus fulva*) root bark powder is also helpful for GERD. One to two tablespoons of the powder can be mixed with a glass of water and taken after meals and before bed. If you add too much powder, it can become very thick and difficult to tolerate. You can sweeten it slightly with honey or sugar if you prefer. Slippery elm appears to be very safe. Avoid taking it at the same time as other medications. Its fibers may bind to medications taken at the same time, and you will not get their full effect.
- **Marshmallow.** Marshmallow (*Althea officinalis*) (the herb, not the white fluffy sweet) can also provide symptom relief. It is helpful for sore throat, cough, bronchitis, and wound healing. The usual dose is 5-6 grams daily, which is about 2-3 tablespoons. Make a tea from the leaves or roots and drink it three times daily using 1 tablespoon (or less) of marshmallow each time. As with slippery elm, do not take it at the same time as other drugs or you may not get the full effect of your medications.



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- **Chamomile.** Chamomile (*Matricaria recituta*) is well known for its ability to help people sleep and to calm the stomach. In GERD, it fights inflammation (pain, redness, irritation). Chamomile is usually taken as a tea of 1-3 grams of the flowers, which is about one tablespoon. Steep them in a cup covered with a saucer. Drink the tea three to four times daily. Chamomile is generally well-tolerated, but if you are allergic to plants in the daisy family (Asteraceae), your allergy symptoms may become worse when you drink chamomile tea.
- **Combination Botanical Products.** *Iberogast*® includes a combination of Clown's mustard, German chamomile, angelica root, caraway, milk thistle, lemon balm, celandine, licorice root and peppermint leaf. A careful review of a number of studies showed that it can be helpful for upset stomach and can reduce pain, cramping, nausea and vomiting. The usual dose is one milliliter three times daily. Most people tolerate it well, but it can cause nausea, diarrhea and skin rash for some.



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#### 4. Pharmaceuticals

Antacid medicines, including over-the-counter antacids and prescription medicines known as H<sub>2</sub> receptor blockers (H<sub>2</sub>Bs) and proton pump inhibitors (PPIs), are commonly used to treat GERD. Both are helpful, but a recent review of many studies has shown that PPIs are more effective than H<sub>2</sub>Bs. A clinician also may prescribe a PPI for one week to help determine if a patient has GERD. The best time to take a PPI is 30 minutes before eating.

Some clinicians prescribe H<sub>2</sub>Bs or PPIs as long as you need them to control symptoms. Antacids try to wipe-out the acid in the stomach, so that stomach contents flowing back into the esophagus no longer cause irritation or discomfort. However, this does not fix the problem with the LES broken gate and can cause other concerns if these medicines are used for a long time. Clinicians are becoming increasingly concerned about the long-term use of this medication. It has been shown to interfere with digestion, increase the risk of infections, and possibly increase the risk of stomach cancer and fractures of the hip and spine.

#### **Tapering off a proton pump inhibitor**

It is a wise idea not to take a PPI any longer than you need to. Talk with your clinician if you have made some changes to your diet and lifestyle and feel you no longer need the medication. It can be a bit tricky to discontinue a PPI, because you can have a rebound effect. This means that stomach acids can increase even if your condition has improved. Rebound symptoms can last for 10-14 days. Here's a plan to help you get through this period while discontinuing the medication. Work with your clinician to make certain it is right for you.

#### **Plan**

1. Focus on nutrition. Try to avoid: alcohol, caffeine (e.g., coffee), chocolate, cow's milk, animal fat and orange juice.
2. Follow your clinician's directions to slowly taper off the PPI over 2-4 weeks (the higher the dose, the longer the taper).

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### Tapering off a proton pump inhibitor (con't.)

3. During this time, try the following:

- Get regular aerobic exercise.
- Practice a relaxation technique such as deep breathing. (This can aid in digestion and keep food moving through your body. See our handout [Breathing Exercise](#)).
- Try acupuncture 1-2 times per week
- Add one or more of the following:
  - Deglycyrrhizinated Licorice (DGL), two-four 380 mg tablets before meals or Sucralfate (*Carafate*) 1 gm before meals.
  - Slippery Elm, 1-2 tablespoons of powdered root in water or 400-500 mg capsules or 5 milliliter of a tincture three to four times/daily.
  - *Iberogast*® 1 milliliter three times/daily (Can get from: [Iberogast on Amazon](#))\*

4. If you are successful and are able to discontinue the PPI without symptoms coming back, you can slowly taper off the licorice, slippery elm or Iberogast. Continue to watch what you eat, exercise and manage your stress. If symptoms return, talk to your clinician about starting licorice, slippery elm or Iberogast or an H2B medication. If symptoms are still difficult to control, you may need to restart the PPI.

### 5. Mind-body therapy

Stress can cause GERD symptoms to be worse, especially for people who have a lot of anxiety. Relaxation training can improve symptoms. The following are links to some of our handouts that provide information about using mind-body techniques:

- [Learning to Meditate \(patient version\)](#)
- [Breathing Exercise](#)
- [Using Journaling to Aid Health](#)



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### 6. Traditional Chinese Medicine (TCM)

TCM includes a combination of diet, lifestyle, herbal medicines, and acupuncture/acupressure. It can be used alone or with other treatments. One interesting study of acupuncture for GERD found that adding acupuncture to PPI therapy was more effective than simply doubling the dose of the PPI.

### 7. Surgery

Surgery is an option if other approaches do not work. The most common surgical procedure is the Nissen fundoplication. In this procedure the bottom of the stomach is wrapped wholly or partially around the lower esophagus. This creates an area of high pressure meant to prevent stomach contents from entering into the esophagus and causing symptoms. The surgery can be done through a large incision (open surgery) or through several small incisions (laparoscopic surgery). The laparoscopic approach is as effective as open surgery, and a hernia is less likely to develop at the scar with this approach.



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### **Surgery (con't.)**

One review examined health-related quality of life and GERD symptoms after one year in four studies involving 1232 people. Some were treated medically; others had laparoscopic surgery. Overall, the surgery seemed to improve symptoms of GERD more than medical management. However, surgery is more costly, and people who have surgery may have more difficulty swallowing following surgery than those who do not have surgery. One careful review of several studies found that the partial laparoscopic surgery resulted in fewer swallowing difficulties than the surgery involving the whole stomach.

***The information in this handout is for general education. It is not meant to be used by a patient alone. Please work with your health care practitioner to use this information in the best way possible to promote your health.***

\*Neither the authors nor the university has any financial ties or conflict of interest regarding the product recommended in this handout.

**References, if needed, can be found in the clinician version of this handout.**

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**Notes:**