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**HEARTBURN AND  
REFLUX**

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Everyone has heartburn occasionally. This occurs when the stomach acid flows upwards into the esophagus. The esophagus is the tube that carries food to the stomach. People usually feel heartburn as a burning sensation or pain behind the breastbone. Often regurgitation of bitter-tasting stomach acid accompanies heartburn. An antacid or milk temporarily relieves heartburn for most people.

**Why Does Heartburn Occur?**

To understand heartburn, let's look at the body's anatomy. The esophagus carries food and liquid to the stomach. A sphincter (specialized muscle) is located at the end of the esophagus. It is known as the lower esophageal sphincter (LES). This muscle contracts much the same as the anus does to close the opening of the rectum to the outside of the body. The LES muscle should only open when food or liquid is passed into the stomach.

However, the LES muscle does not always work perfectly. Sometimes it is too weak to stay completely closed, and stomach juices seep back into the esophagus. This is known as reflux. The most common is eating a large meal. Along with swallowed air, a large meal causes pressure in the stomach to rise, and overpowers the LES muscle. The following are other factors that reduce the LES pressure and allow reflux:

- Nicotine (any tobacco products)
- Fried or fatty foods
- Caffeine (coffee, tea, colas, chocolate)

- Citrus fruits and juices
- Peppermint & Spearmint
- Alcohol
- Pregnancy
- Lying flat
- Hiatal hernia
- Certain prescription medicines

**Is Heartburn Serious?**

Heartburn and reflux are extremely common, with 10 percent of the population experiencing them daily. Twenty-five percent of pregnant women have heartburn. Even though heartburn is common, it is rarely life threatening. Severe cases, however, can result in injury to the lower esophagus that requires treatment.

**What Is a Hiatal Hernia?**

The diaphragm is a flat horizontal muscle that separates the lungs from the stomach at the rest of the digestive tract. The esophagus passes through an opening in the diaphragm. If the opening enlarges, a portion of the stomach can protrude (herniate) through the chest. This is called a hiatal hernia. A persistent hiatal hernia may produce significant heartburn. However, many people who experience heartburn do not have a hiatal hernia. Likewise, many people with a hiatal hernia do not experience heartburn.

**Diagnosis of Reflux**

A test used to diagnose reflux is:

- Upper GI Endoscopy-The patient is given a mild sedative. Then, a thin, lighted, flexible tube, called an endoscope, is

inserted into the esophagus to visually inspect it and the stomach.

### **Complications of Reflux**

In some people, acid in the lower esophagus actually causes tissues damage. Certain complications can then result:

- Chronic bleeding and anemia.
- Scar formation and narrowing of the lower esophagus. This is called a stricture. It is usually treated by dilatation, a procedure to widen the area.
- Barrett's esophagus can occur when reflux irritates the lower esophagus over a long period of time. The stomach lining then actually grows into the esophagus. In these cases, there is a slight, but definite risk of cancer developing.
- Lung problems can develop when reflux results in stomach fluid trickling into the breathing tubes. It often occurs at night when a patient is lying down. This causes wheezing, bronchitis and even pneumonia.

### **Treatment of Reflux**

There are general measures the patient can take to reduce reflux:

- Eat smaller and more frequent meals.
- Do not lie down immediately after eating; avoid eating several hours before going to bed.
- Excessive bending, lifting, abdominal exercises, girdles, and tight belts all increase abdominal pressure and provoke reflux.

- Stop using all tobacco; nicotine weakens the LES.
- Avoid fatty foods, alcohol, coffee, chocolate, and peppermint.
- Elevate the head of the bed 8" to 10" so gravity keeps stomach juices out of the esophagus while the patient sleeps. Extra pillows by themselves are not usually helpful.
- Certain prescriptions or over-the-counter medications can weaken the LES or aggravate reflux. Review all medications you are taking with the physician.

Other treatments include:

**Antacids-** These can and should be taken 30 to 60 minutes after eating at bedtime. Liquids are preferred to tablets, with the strongest being Maalox II®, Mylanta II®, Gelusil II® and Extra Strength Riopan®.

**Drugs-** Medications are now available that effectively reduce and even eliminate the secretion of stomach acid and increase the strength of the LES muscle. The most potent of these are called proton pump inhibitors. These remarkable drugs are often dramatically effective in severe cases of reflux. The most popular of these is omeprazole (trade name Prilosec).

**Surgery-** Surgery is rarely required in treating reflux. However, when the treatment programs outlined above are ineffective, surgery must be considered to strengthen the LES muscle. A newer method of performing anti-reflux surgery is by laparoscopic technique. The surgery is accomplished through tiny holes in

the bellybutton and upper abdomen. (Recovery is far quicker with this technique. This operation should only be performed by surgeons familiar with it.) Surgery, however, is not always permanently successful and there can be complications.

### **Summary**

Heartburn occurs so commonly that it is normal for everyone to experience it at sometime. However, when heartburn is persistent, it needs to be evaluated and long-term follow-up care is often required. Medical treatment is usually very effective and can prevent complications. For the few patients who are not helped by medical treatment, surgery offers a viable and usually successful alternative.