Gastroesophageal Reflux Disease (GERD): Explained

Any valuable discussion of acid reflux needs to include a section devoted to a better understanding of the disease, including the leading causes and resulting conditions attributed to the ailment. Educating yourself as to the causes, symptoms, and effects of your disease will equip you with the knowledge you need to intelligently chart your path to health.

For our purposes, we'll be taking a closer look at what exactly acid reflux or gastroesophageal reflux disease (GERD) is. Additionally, we'll take review how hiatal hernia can lead to GERD and such conditions as Barrett's Esophagus, a dangerous form of cancer that can result in patients with long-term GERD.

What is GERD (acid reflux)?

At its most basic, Gastroesophageal reflux disease (GERD), or acid reflux, is a condition where the stomach backs up (refluxes) and the liquid content contained within it returns to the esophagus.

If the liquid were something like water, there'd be no problem. However, the liquid most often contains acid, pepsin (an enzyme that aids in digestion), and even bile. Initially, this combination of caustic agents will agitate and redden the lining of the esophagus, but over time it can cause significant damage.

Interestingly, the reflux of liquid from the stomach is a common bodily experience for most people. However, in sufferers of GERD, the concentration of acid within the liquid is often significantly higher and the liquid itself stays in the esophagus—where it can do its damage—longer than in normal individuals.

For all people, the body does a number of things to minimize the impact of the refluxed acid. These protective measures include:

- **Gravity and the waking hours.** Because most reflux occurs during waking hours, the body's upright position working with gravity helps the liquids to naturally make its way back down to the stomach.

- **Swallowing.** Salvia, which contains bicarbonates which help to neutralize the damaging effects of acid, is a big part of managing refluxed liquids. Swallowing, then, goes a long way to help clear out the remaining reflux.

However, GERD sufferers and normal individuals alike become more susceptible to the damaging effects of reflux at night. The body's prone position as well as the lack of swallowing and saliva during sleep allows the refluxed liquids to remain longer in the esophagus, where they can do more damage.

Note: Many confuse gastritis with GERD and, although similar symptoms do exist, gastritis and GERD are different. To learn more about gastritis, click here.

What Causes GERD?

Compared to the relatively simple definition of what GERD is, what causes GERD is much more complicated. For the sake of providing you with a good working idea of the causes of GERD without boring you to tears, we've provided you with a thumbnail sketch of each of the main causes of GERD. For more information about any of these causes, we suggest you consult your primary care physician.

1. **Excess Production of Acid.** Believe it or not, only a small percentage of GERD sufferers are afflicted with the disease because their bodies produce an abnormally high amount of acid. Although it is a small segment of the GERD population, excess acid production can be a cause of the disease. In this instance, a sufferer simply produces more acid than the

body knows what to do with and the refluxed acid has an unusually high degree of potency and can cause damage.

2. **Lower Esophageal Sphincter**—as you know the esophagus connects your throat to your stomach. Where your esophagus and stomach meet, a ring of muscle, called the lower esophageal sphincter, serves as a connector. Typically, the muscle is constricted so the contents of the stomach stay exactly where you want them to—in the stomach. However, when you are eating, the muscle relaxes momentarily to allow your food and liquids to make their way from the esophagus to the stomach. Basically, the lower esophageal sphincter acts as the gateway from your esophagus to your stomach.

3. However, for many GERD sufferers the lower esophageal sphincter is not performing its job correctly. Typically, there are two problems with lower esophageal sphincter that can lead to GERD.

   - **Weak muscle contraction.** The lower esophageal sphincter in some GERD sufferers is extremely weak. In other words, it just doesn't close off the gateway between the stomach and the esophagus effectively. This "partially open door" allows acid to reflux more readily into the esophagus and cause damage.

   - **Transient lower esophageal sphincter relaxations—**Don't worry; it's not as complicated as it may sound. During normal swallowing, your lower esophageal sphincter relaxes for a few seconds to allow your food and liquids to pass through. However, in some GERD sufferers, the lower esophageal sphincter will relax at random times and not during eating. These "relaxations" also last for up to several minutes. During this time, the "gate" is wide open and acid can reflux into the esophagus unobstructed.