



The GERD, the BED, and the UGLY

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Simply Screening , Total Endoscopic Health & Prevention

With assistance from Clint Eastwood

"Go ahead, make my day." ~ *Sudden Impact*, 1983

Fifteen million Americans daily, and over 60 million monthly, enjoy GERD, an acronym standing for gastroesophageal reflux disease, and more commonly known as heartburn or reflux. The regurgitation of stomach contents and acid up the esophagus causes a substernal burning sensation that radiates up to the neck and throat. Other symptoms include acid brash, or the taste or sensation of acid up into your mouth.

How does reflux happen? Usually the symptoms are *not* due to excessive acid, although reduction of acid is the mainstay in our treatment of GERD. The esophagus relies on several mechanisms to keep acid and stomach contents down in the stomach where they belong. The stomach lining secretes mucous and bicarbonate to protect itself against the caustic contents of acid, pancreatic juices, and bile.

The protective esophageal mechanisms are:

- 1) The LES or lower esophageal sphincter. This muscle that encircles the bottom end of the esophagus should remain pursed closed unless food is descending. This sphincter can become lax with age, medications, or certain foods, and contents can escape north.
- 2) Esophageal peristalsis. The sequential contraction of the esophagus from top to bottom with each swallow "milks" the food down the esophagus. These same contractions occur when the esophagus perceives injury from the northbound stomach contents. Sometimes these contractions become weak or erratic with age, diseases, or medications.
- 3) Minor protective mechanisms include saliva flowing down and neutralizing acid as well as the stomach grinding movement after meals that allows the stomach to empty. Issues of either of these can worsen the GERD.

If you want a guarantee, buy a toaster. ~ *The Rookie*, 1990

How can you guarantee that you have reflux? You diagnosis it yourself in most cases, needing no physician, confirmatory tests or even upper endoscopy to look at the esophagus lining. If your symptoms don't respond promptly to medications, or are chronic, your gastroenterologist should take a look.

In rare cases, in which folks experience potential side effects of reflux (hoarseness, chronic cough, refractory asthma) but without that substernal burn, or whose symptoms aren't responding to treatment, we may need to do a 24 hour pH probe test to prove the presence of reflux. In this somewhat unpleasant GI procedure, a slender flexible vinyl tube is inserted into your nose while you are awake and unsedated. The probe is advanced down your esophagus so that the tip that measures pH dangles about 5 centimeters above your LES. The portion of the probe hanging out your nose is then looped and taped by your ear, and the end is plugged into a machine about the size of a Walkman. This attaches to your belt or clothing waistband, recording the pH, or acid level, at this level in your esophagus for the next 24 hours. Usually, there are buttons on the device, that you are requested to press if you experience reflux symptoms, or when you eat, or when you lie down, to allow us to better understand what makes your reflux worse. Anytime that the pH dips below 4 (neutral is 7), you have refluxed.

There's plain few problems can't be solved with a little sweat and hard work.

~ *Pale Rider* 1985

Management of reflux, whether it is heartburn or GERD, starts with lifestyle modifications...hard work. These include elevating the head of your bed, assuming it's not a waterbed, on blocks 4-6 inches up. Raising your head on a pile of pillows just won't do—it crimps your body in the center, and the increased abdominal pressure

promotes regurgitation. And as always, if you have a paunch in your midsection, you need to get rid of it. That excess weight puts pressure in the middle, as does having a big pregnant belly, which forces the stomach contents skyward.

You must stop smoking. Tobacco inhibits saliva flow, and may also stimulate acid production and relax the LES. It has been shown that sucking on a cigarette (or a straw) draws acid up the esophagus like a siphon.

ADLER: Red, they got T-bones in the fridge. And tater tots.

BRADLEY: Now, I don't think we should eat that. Those were ordered special for the Governor. They might not approve of this.

ADLER: That so? I do like tater tots. ~A Perfect World, 1993

An antireflux diet is essential in management. This means small meals, eating supper 3-4 hours before bedtime, and avoiding foods that can lower the LES pressure, particularly at night. These include coffee or tea, alcohol, chocolate, onions, greasy or spicy foods, tomato products, and mints.

DR. FOX: Have you been taking your pills every day?

McCALEB: Yeah, yeah all 34 of them. ~Blood Work, 2002

There are four main classes of medications used for reflux, and all have their place.

Antacids immediately neutralize the stomach acid—the problem is, the stomach immediately makes even more acid in response. These are great for rare or intermittent reflux that needs immediate control. My favorite of this class is Gaviscon. Due to an alginate, liquid Gaviscon floats up on top of the stomach contents, neutralizing the material directly underneath. And it forms a chemical barrier: if you reflux, first the Gaviscon comes north.

H-2 blockers (Zantac, Tagamet, Axid, Pepcid) block the histamine pathway of acid secretion, which is one of three ways the stomach makes acid. This decreases the overall amount of acid, but does not eliminate it. Great for mild to moderate reflux, and don't require a prescription, but no instant response.

Proton Pump Inhibitors (Nexium, Prilosec, Prevacid, Aciphex, Protonix) disable the acid producing pump in the gastric lining, making the cell that is attacked by the drug incapable of making any acid for up to four days as it regenerates a new pump. These drugs work best if taken on an empty stomach, about 30 minutes before a meal. No instant response, and requires prescription, but superb acid control for severe reflux.

Prokinetic agents (Reglan) have fallen from favor. Although they do enhance the LES closing pressure and the esophageal movement, pesky side effects such as tardive dyskinesia (a facial twitch that doesn't go away after the drug is stopped), depression, irritability, and anxiety have limited their use. Domperidone, a newer agent, has not yet gained FDA approval in the United States but is available over the counter from Canada and New Zealand. Sometimes, low dose erythromycin (an antibiotic which causes queasiness due to increased GI tract movement) is used to enhance motility. These drugs are mainly used when full doses of the PPI class of medications do not suffice.

You improvise. You adapt. You overcome. ~Heartbreak Ridge 1986

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