

GERD: Gastroesophageal Reflux Disease

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What is GERD?

Gastroesophageal reflux disease, also known as GERD, is a common condition that is experienced in the general population, particularly after eating. Commonly referred to as acid reflux, GERD occurs when acidic fluids from the gut rise up from the stomach into the throat causing irritation and discomfort.

Normally the body can defend against these acids so symptoms of GERD do not occur. However, in some people the acids are not cleared as effectively or too much acid is produced which leads to symptoms of GERD. Table 1 below lists some of the more common signs and symptoms of GERD.

Table 1: Signs and Symptoms of GERD

Heartburn
Chest pain
Sore throat
Hoarseness
Frequent throat clearing
"Lump in the throat" sensation
Regurgitation of excessive saliva
Regurgitation of foods/liquids
Coughing
Loss of dental enamel

What causes GERD?

GERD is caused by increased movement of acid containing fluids from the stomach into the throat and the impaired clearance of these fluids. Risk factors for GERD can include older age, certain foods, medications, and lifestyle habits such as smoking. Table 2 lists some age-related changes that can lead to GERD. Table 3 lists some foods and medications that can potentially contribute to GERD.

Table 2: Age-Related Changes that increase GERD risk

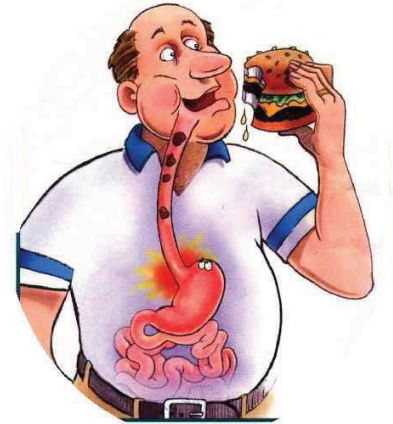
- Decreased salivary response to acid in the throat
- Impaired acid clearance due to decreased muscle function in the throat
- Decrease in normal protective mechanisms
- Require more medications which may lead to GERD

Table 3: Potential Contributors to GERD

<u>Foods</u>	<u>Medications</u>
Alcohol	Anticholinergics
Carbonated beverages	Barbiturates
Citrus fruit drinks	Calcium channel blockers
Chocolate	Diazepam
Coffee	Estrogen
Fatty foods	Meperidine
Peppermint	Nitrates
Spicy foods	NSAIDs
Tomato products	Theophylline

Tips to prevent GERD

- Minimize or avoid foods and beverages that increase your risk for GERD
 - Fried and fatty foods
 - Spicy and heavily seasoned foods
 - Highly acidic foods (orange juice, tomato juice)
 - Alcoholic beverages
 - Caffeinated or carbonated beverages
 - Chocolate
 - Peppermint or spearmint
- Eat smaller, more frequent meals throughout the day rather than a few large meals each day
- Wear clothes that fit more loosely around the stomach
- Exercise
- Do not eat close to bedtime. Wait 2-3 hours after a meal before lying down.
- If possible, avoid medications that can aggravate heartburn (Table 3).
- Stop smoking
- Chew gum or use oral lozenges to promote salivation to encourage acid clearance



How is GERD treated?

If lifestyle modifications, such as those mentioned above, are unable to adequately control GERD then you may need to use a medication. Medications to treat GERD are available either over-the-counter (OTC) or as a prescription provided by your physician.

There are two classes of medications that are most commonly used to treat GERD: Proton Pump Inhibitors (PPIs) and Histamine-2-Receptor Antagonists (H2RAs). These medications work by decreasing the amount of acid in the stomach.

Over-the-Counter Medications

- PPIs
 - Prevacid 24HR® (Lansoprazole)
 - Prilosec OTC® (Omeprazole)
 - Zegerid OTC® (Omeprazole Combo)
- H2RAs
 - Axid AR® (Nizatidine)
 - Pepcid® (Famotidine)
 - Tagamet® (Cimetidine)
 - Zantac® (Ranitidine)

Prescription Medications

- PPIs
 - Aciphex® (Rabeprazole)
 - Dexilant® (Dexlansoprazole)
 - Kapidex® (Dexlansoprazole)
 - Nexium® (Esomeprazole)
 - Prilosec® (Omeprazole)
 - Protonix® (Pantoprazole)



Cautions with medications used to treat GERD

DRUG INTERACTIONS

- Both PPIs and H2RAs may interact with any enteric coated or delayed release medication. These medications require a certain acidic environment to be effective, which is altered by taking PPIs and H2RAs.
- There are also many medications that require an acidic environment to be absorbed. A few examples include iron, digoxin, and some antibiotics.
- PPIs are known to interact with Plavix by significantly decreasing their effectiveness. Taking these medications together should be avoided.

DOSING (DURATION AND ADJUSTMENTS)

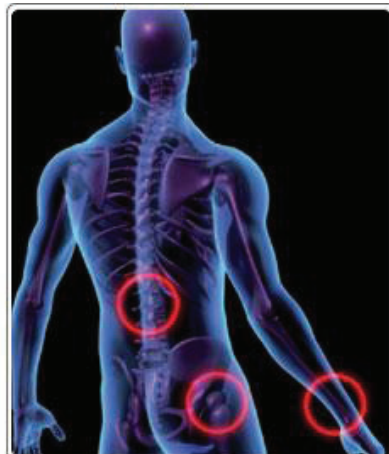
- For the treatment of GERD, the maximum amount of time that any PPI or H2RA should be taken is 12 weeks. Taking these medications for longer durations pose major risks.
- For the treatment of GERD, it is recommended that patients take the lowest effective dose to prevent symptoms. Taking these medications at excessive doses pose additional risks.
- If given a prescription for a PPI or H2RA, your physician will have to adjust the dose if you have decreased kidney function.

RISKS WITH LONG-TERM USE

- Patients who have taken PPIs for more than the recommended duration have been shown to have an increased risk for hip, spine, and wrist fractures.
- Long-term use of PPIs has also been associated with increased risk for gastrointestinal infections and pneumonia.
- Long-term use of PPIs and H2RAs can lead to low levels of nutrients and electrolytes.

STOPPING TREATMENT

- For patients who have taken PPIs or H2RAs for a long period of time and at high doses, slowly decreasing the dose is recommended when stopping therapy to prevent rebound symptoms.
- Talk to your physician or pharmacist if you have any questions about stopping treatment.



Source: FDA

Helpful Websites for More Information on GERD

- Mayo Clinic: <http://www.mayoclinic.com/health/gerd/DS00967>
- MedlinePlus: <http://www.nlm.nih.gov/medlineplus/gerd.html>
- Drugs.com: <http://www.drugs.com/condition/gastroesophageal-reflux-disease.html>
- PubMed Health: <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001311/>

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