



## Management of Gastroesophageal Reflux Disease (GERD)

*BQIS Fact Sheets provide a general overview on topics important to supporting an individual's health and safety and to improving their quality of life. This document provides general information on the topic and is not intended to replace team assessment, decision-making, or medical advice. This Fact Sheet is one of ten regarding aspiration prevention.*

### Intended Outcomes

Readers will gain an understanding of the cause of gastroesophageal reflux disease (GERD), available interventions, and the connection between GERD and the risk of aspiration and aspiration pneumonia.

### Definitions

**Aspiration:** Occurs when a person inhales a foreign substance into his lungs. Possibilities include food, drink, and medications. In some cases, however, it is mucus that causes this problem, and a person may even aspirate saliva.

**Aspiration Pneumonia:** Aspiration pneumonia occurs when food, saliva, liquids, or vomit is breathed into the lungs or airways leading to the lungs.

**Esophageal Stricture:** A gradual narrowing of the esophagus, which can lead to swallowing difficulties.

**Esophagitis:** An irritation or inflammation of the esophagus. Esophagitis symptoms include difficult and painful swallowing, heartburn, mouth sores feeling of something stuck in the throat, nausea, and vomiting.

**Gastroesophageal Reflux Disease (GERD):** Acidic stomach contents “back up” into the esophagus or mouth.

**Hiatal Hernia:** “Hiatal” means “opening.” “Hernia” means bulge or protrusion of an organ through the structure or muscle that usually contains it. A hiatal hernia occurs at the opening of the diaphragm where the esophagus meets the stomach. If the muscles that surround the diaphragm opening become weak or damaged, the upper portion of the stomach protrudes through the diaphragm opening.

**Lower Esophageal Sphincter:** The ring of muscular tissue at the junction of the stomach and the esophagus that relaxes and contracts, thus allowing food to pass into and stay in the stomach.



**Lower Esophageal Sphincter Incompetence:** An incompetent lower esophageal sphincter relaxes at inappropriate times, allowing acidic stomach contents to escape into the esophagus, or lacks sufficient strength to keep contents in the stomach.

**PRN:** An abbreviation for *pro re nata*, a Latin phrase meaning “as needed.” The administration times are determined by the patient’s needs.

### Facts

- People at heightened risk of developing GERD are those who:
  - Have a hiatal hernia. (A hiatal hernia prevents the diaphragm muscles from supporting the lower esophageal (food tube) sphincter (muscle). The sphincter becomes incompetent (will not close properly) and GERD occurs.)
  - Have lower esophageal sphincter incompetence
  - Have skeletal deformities
  - Smoke; drink coffee, caffeinated beverages, or alcohol
  - Have delayed stomach emptying
  - Eat high fat diets
  - Are overweight
  - Take medications that relax muscles
  - Have seizure disorders and/or take medication that affects muscle tone
  - Have constipation

### GERD Signs and Symptoms

- Hoarseness
- Heartburn (most common)
- Drooling
- Coughing
- Hand in mouth behaviors
- Repeated swallowing



- Frequent respiratory problems (e.g., coughing, wheezing, asthma, bronchitis, pneumonia)
- PICA
- “Sour” smelling or “formula” burps

### Complications of GERD

- Esophagitis that can lead to ulcers and upper gastrointestinal bleeding
- Strictures and ulcerations—The backup, or reflux, of stomach acids and juices into the esophagus that occurs with gastroesophageal reflux disease (GERD) can wear away (erode) the lining of the esophagus and cause sores, called ulcers
  - One of the conditions that can lead to esophageal strictures is gastroesophageal reflux disease. Excessive acid is refluxed from the stomach up into the esophagus. This causes an inflammation in the lower part of the esophagus. Scarring will result after repeated inflammatory injury and healing, re-injury, and rehealing. This scarring will produce damaged tissue in the form of a ring that narrows the opening of the esophagus (stricture).
- Barrett’s esophagus, which can lead to cancer—Barrett’s esophagus is a serious complication of GERD. In Barrett’s esophagus, normal tissue lining the esophagus—the tube that carries food from the mouth to the stomach—changes to tissue that resembles the lining of the intestine. About 10% of people with chronic symptoms of GERD develop Barrett’s esophagus. Barrett’s esophagus does not have any specific symptoms, although patients with Barrett’s esophagus may have symptoms related to GERD. It does, though, increase the risk of developing esophageal adenocarcinoma, which is a serious, potentially fatal cancer of the esophagus.
- Aspiration, which can lead to pneumonia
- Death

### Diagnosing GERD

- History of symptoms, including any family history
- Trial on a Proton Pump Inhibitor (PPI) under the care and review by a physician
- Re-evaluate for change in symptoms
- GERD-related tests: The physician may order one or more tests to confirm the diagnosis of GERD and/or determine any complications resulting from GERD



### Common Medications used to Treat GERD

- Proton Pump Inhibitor (PPI): A medication that reduces the amount of acid produced by the cells in the stomach (e.g., Prilosec (omeprazole), Nexium, and Protonix).
- Histamine Antagonists: Medication that decreases production of stomach acid (e.g., Zantac, Tagamet, and Pepcid).
- Antacids: Substances that neutralize stomach acids (e.g., Tums and Mylanta).

### Recommended Actions and Prevention Strategies

1. Administer medications as prescribed, as well as a PRN antacid for breakthrough symptoms (any symptom—e.g., heartburn—in a GERD patient that ‘breaks through’ and manifests itself, despite adequate management).
2. Assist person to achieve good positioning:
  - a. Elevation – from top of head to at least hips, if not able to be totally upright.
  - b. Supported so not curving sideways or slumping forward.
  - c. Elevated right-side lying or prone positioning may assist with stomach emptying and decrease reflux. Implement only with the recommendation and guidance of a licensed therapist.
3. Encourage person to eat slowly and chew thoroughly.
4. Provide frequent small meals.
5. Encourage meals to be eaten 2-3 hours before lying down.
6. Encourage and assist the individual to maintain desirable body weight.
7. Provide and encourage quality nutrition.



### Learning Assessment

The following questions can be used to verify a person's competency regarding the material contained in this Fact Sheet:

1. True or False: The trial of a Proton Pump Inhibitor (PPI) may be useful in diagnosing GERD.
2. True or False: A Proton Pump Inhibitor helps decrease the amount of acid produced by the cells in the stomach.
3. Complications of GERD include:
  - A. Weight loss
  - B. Pneumonia
  - C. Contractures
  - D. Skin breakdown
4. Common signs associated with GERD include:
  - A. Mouthing behaviors
  - B. Excessive drooling
  - C. Repeated swallowing
  - D. All of the above
5. Methods to help prevent GERD include:
  - A. Eating fast
  - B. Swallowing without chewing
  - C. Good positioning
  - D. Eating while lying down



### References

Gastroesophageal Reflux Disease (GERD). University of California, San Diego School of Medicine: Developmental Disabilities Resources for Healthcare Providers. Retrieved 06/15/15 from <https://cme.ucsd.edu/ddhealth/courses/GERD.html>.

Gastroesophageal Reflux (GER) and Gastroesophageal Reflux Disease (GERD) in Adults National Institute of Diabetes and Digestive and Kidney Diseases. Retrieved 06/15/15 from <http://www.niddk.nih.gov/health-information/health-topics/digestive-diseases/ger-and-gerd-in-adults/Pages/overview.aspx>.

Understanding GERD. American College of Gastroenterology. Retrieved 06/15/15 from <http://s3.gi.org/patients/pdfs/UnderstandGERD.pdf>.

### Related Resources

Aspiration Prevention Series Fact Sheets: *Food Texture and Fluid Consistency Modification, Management of Constipation, Management of Oral Health, Dysphagia, Modified Barium Swallow Study/Videofluoroscopy, Positioning, Management of Gastric Residuals, Feeding Tubes and Feeding/Medication Administration Options, and Choice Considerations Relevant to the Use of Enteral Nutrition*

*General Description of Diet Textures* Handout

These resources can be located on the BQIS Fact Sheet & Reminders webpage at: <http://www.in.gov/fssa/ddrs/3948.htm>.

### Learning Assessment Answers

1. True
2. True
3. B
4. D
5. C