

abnormalities (e.g., pyloric stenosis, malrotation, annular pancreas, hiatal hernia, esophageal stricture). The 24-hour intraesophageal pH monitoring study is the gold standard in the diagnosis of GER ([Wilshire and Watson, 2013](#)). Endoscopy with biopsy may be helpful to assess the presence and severity of esophagitis, strictures, and Barrett esophagus and to exclude other disorders, such as Crohn disease. **Scintigraphy** detects radioactive substances in the esophagus after a feeding of the compound and assesses gastric emptying. It can differentiate between aspiration of gastric contents from reflux and aspiration from poor oropharyngeal muscle coordination.

### Therapeutic Management

Therapeutic management of GER depends on its severity. No therapy is needed for the infant who is thriving and has no respiratory complications. Avoidance of certain foods that exacerbate acid reflux (e.g., caffeine, citrus, tomatoes, alcohol, peppermint, and spicy or fried foods) can improve mild GER symptoms. Lifestyle modifications in children (e.g., weight control if indicated; small, more frequent meals) and feeding maneuvers in infants (e.g., thickened feedings, upright positioning) can help as well.

Feedings thickened with 1 teaspoon to 1 tablespoon of rice cereal per ounce of formula may be recommended. This may benefit infants who are underweight as a result of GERD; however, the additional calories are not beneficial among infants who are overweight. These infants may benefit from pre-thickened formulas that are now commercially available. Constant NG feedings may be necessary for infants with severe reflux and failure to thrive until surgery can be performed. Elevating the head of the bed after feedings and weight loss can reduce GER symptoms. Prone positioning of infants also decreases episodes of GER but due to the risk of sudden infant death syndrome, all infants should sleep in the supine position ([Khan and Orenstein, 2016a](#)). The American Academy of Pediatrics continues to recommend supine positioning for sleep (see [Chapter 9](#)).

Pharmacologic therapy may be used to treat infants and children with GERD. Both H<sub>2</sub>-receptor antagonists (cimetidine [Tagamet], ranitidine [Zantac], or famotidine [Pepcid]) and proton pump