chapter **61**

Laxatives and Cathartics

Objectives

AFTER STUDYING THIS CHAPTER, THE STUDENT WILL BE ABLE TO:

1. Differentiate the major types of laxatives according to effects on the gastrointestinal tract.
2. Differentiate the consequences of occasional use from those of chronic use.
3. Discuss rational choices of laxatives for selected client populations or purposes.
4. Discuss bulk-forming laxatives as the most physiologic agents.
5. Discuss possible reasons for and hazards of overuse and abuse of laxatives.

Critical Thinking Scenario

Elmer Wong, a 67-year-old teacher, fractured his hip when he fell on a patch of ice. He is scheduled for hip surgery to repair the fracture; this will be followed by a period of rehabilitation as he regains his mobility. Mr. Wong's history reveals he usually has a bowel movement every 2 to 3 days and occasionally uses laxatives.

Reflect on:

- Factors that increase his risk for constipation during the postoperative period.
- Expectation for postoperative bowel elimination, considering his history.
- Nonpharmacologic interventions that can promote normal bowel function during the postoperative period.
- Appropriate use of laxatives to promote normal bowel function. What kinds of laxatives are usually used, and why?

OVERVIEW

Laxatives and cathartics are drugs used to promote bowel elimination (defecation). The term *laxative* implies mild effects and elimination of soft, formed stool. The term *cathartic* implies strong effects and elimination of liquid or semiliquid stool. Because the different effects depend more on the dose than on the particular drug used, the terms often are used interchangeably.

DEFECATION

Defecation is normally stimulated by movements and reflexes in the gastrointestinal (GI) tract. When the stomach and duodenum are distended with food or fluids, gastrocolic and duodenocolic reflexes cause propulsive movements in the colon, which move feces into the rectum and arouse the urge to defecate. When sensory nerve fibers in the rectum are stimulated by the fecal mass, the defecation reflex causes strong peristalsis, deep breathing, closure of the glottis, contraction of abdominal muscles, contraction of the rectum, relaxation of anal sphincters, and expulsion of the fecal mass.

The cerebral cortex normally controls the defecation reflex so defecation can occur at acceptable times and places. Voluntary control inhibits the external anal sphincter to allow defecation or contracts the sphincter to prevent defecation. When the external sphincter remains contracted, the defecation reflex dissipates, and the urge to defecate usually does not recur until additional feces enter the rectum or several hours later.

In people who often inhibit the defecation reflex or fail to respond to the urge to defecate, constipation develops as the reflex weakens. *Constipation* is the infrequent and painful expulsion of hard, dry stools. Although there is no "normal" number of stools because of variations in diet and other factors, most people report more than three bowel movements per week. Normal bowel elimination should produce a soft, formed stool without pain.