Functional constipation is defined by the Rome II Coordinated Committees as a group of functional disorders that present with resistant, difficult, infrequent, or seemingly incomplete defecation. Previous definitions have included a regular occurrence (in more than 25% of defecations) of excessive straining, lumpy or hard stools, a sense of incomplete evacuation, a sensation of anorectal obstruction or blockage, or less than three bowel movements per week over at least 12 consecutive weeks in the preceding 2 years. Such disorders may be congenital, as in Hirschsprung’s disease, or acquired later in life as a result of lifestyle or behavior, infection, or because of anatomic or physiologic abnormalities (Fig. 3.1). The causes of constipation, even after an exhaustive evaluation, often remain unclear and, in many cases, multifactorial. This chapter discusses the etiology of acquired constipation.

Lifestyle

Diet

Western-style societies have the highest incidence of constipation as compared to less developed societies. Dietary composition, especially fiber content, may be a leading contributing cause of constipation. Inadequate dietary fiber intake produces stools that are less bulky, lower in water content, lower in volume, and more difficult to eliminate. In societies such as western Africa where the average dietary fiber intake is as much as 35 g of insoluble fiber, individuals have two to three large soft bowel movements per day on average, and reports of constipation are uncommon. In the United States, dietary fiber intake averages less than 12 g per day, and complaints of constipation may affect 3% to 5% of the population at any given time. Insoluble dietary fiber acts by drawing water into the intestinal lumen, resulting in bulky, soft, large stools that have higher water content. Colonic peristaltic movements, in turn, are in part stimulated by colonic distention.

Frenetic Pace of Life

Strange as it may seem, a hectic schedule and lack of time to eliminate is an increasingly frequent cause of constipation, particularly in individuals trying to manage more than one job.

Medications

Numerous medications (anticholinergics, antidepressants, narcotics) may lead to iatrogenic constipation by impeding neural signaling, resulting in impaired colonic muscular coordination (Table 3.1). Initial treatment of constipation with an identified pharmacologic cause consists of discontinuing the offending drug or replacing the drug with a nonconstipating alternative, if available. Psychiatric disorders such as depression, psychosis, and anorexia nervosa, as well as their pharmacologic treatments, may contribute to or worsen constipation. This has become a real clinical problem with the increasing and almost ubiquitous prescription of
antidepressants and psychotropic drugs by many physicians.

**Weight Loss, Eating Disorders, and Laxative Abuse**

Lack of oral intake, or bulimia, can be associated with reduced fecal volume. By their mechanism of action, overuse of laxatives may result in constipation due to dehydration, hypokalemia, or hypermagnesemia, altering neural transmission and function. The role of laxatives in damaging enteric neurons is uncertain. Long-term use has been associated with changes in neurons of the myenteric plexus and smooth muscle of the colon. Findings such as loss of neurons, morphologic changes of argyrophilic cells, including clubbing and shrinkage, and replacement of ganglia by Schwann cells have been histologically demonstrated. Similar morphologic findings have been discovered in patients with inflammatory bowel disease and diabetic