

Low FODMAP Diet A diet rich in FODMAP (fermentable oligosaccharides, disaccharides, monosaccharides, and polyols) often triggers symptoms in IBS patients. FODMAPs are poorly absorbed by the small intestine and fermented by bacteria in the colon to produce gas and osmotically active carbohydrates (Fig. 327-4). At the same time, on entering the colon, FODMAPs may serve as nutrients for the colonic bacteria and promote the growth of gram-negative commensal bacteria, which may induce epithelial damage and subclinical mucosa inflammation. Fructose and fructans induce IBS symptoms in a dose-dependent manner. In contrast, a low FODMAP diet reduces IBS symptoms. A systemic review and meta-analysis of seven studies of IBS patients found that a low FODMAP diet was associated with reduced global symptoms compared with control interventions. These studies showed symptomatic benefit of restricting FODMAPs in 50–80% of patients with IBS. There is increasing support for recommending a low FODMAP diet as first-line treatment for IBS patients. Given that between 20 and 50% of patients do not respond to a low FODMAP diet, the identification of patients who are more likely to respond to a low FODMAP diet at baseline would be highly beneficial. In a small clinical study comparing responders to a low FODMAP diet to nonresponders, fecal volatile organic acid profiling at baseline accurately predicted response in 97% of cases. This finding needs to be confirmed by large prospective cohort studies.