

# The Role of Diet in the Treatment of Irritable Bowel Syndrome: A Systematic Review



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## KEYWORDS

- Nutrition • Diet • Irritable bowel syndrome • FODMAPs • Gluten • Food sensitivities • Fiber • Elimination diets

## KEY POINTS

- Irritable bowel syndrome (IBS) is characterized by recurrent abdominal pain and altered stool frequency and form, which is diagnosed according to the updated Rome IV criteria.
- Food may induce symptoms that have a range of effects in the human body, including increases in luminal osmolarity, induction of gut motility, intestinal spasms immune activation, and other poorly understood processes.
- Elimination diets are helpful in improving IBS symptoms; however, it is impossible predict which subset(s) of patients will benefit from specific restriction regimens.
- A group of foods that include fructooligosaccharides, oligosaccharides, disaccharides, monosaccharides, and polyols (FODMAPs) represents a range of foods may provoke IBS.
- Restricting FODMAPS from the diet is associated with improved IBS symptoms and quality of life.

## INTRODUCTION

Irritable bowel syndrome (IBS) is characterized by abdominal discomfort and alterations in bowel habits, including diarrhea (diarrhea-predominant IBS [IBS-D]), chronic constipation (constipation-predominant IBS), or a combination of both (IBS-mixed). A diverse range of digestive tract symptoms is associated with IBS, including constipation, diarrhea, pain, and/or discomfort, distension, and flatulence.

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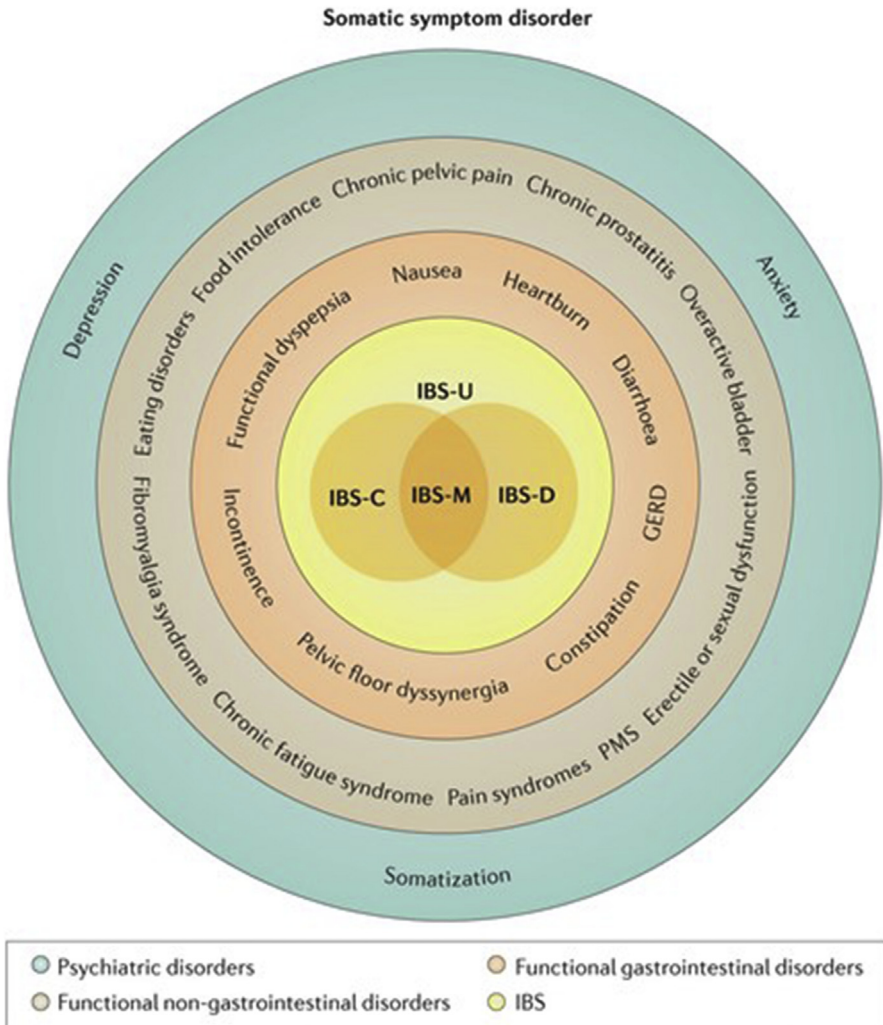
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There are 4 disease subtypes of disease in equal proportions: diarrhea, constipation, mixed, and undefined.<sup>1</sup> People with IBS may also experience bloating, intense abdominal pain, and a myriad of other intestinal and extraintestinal comorbidities (ie, anxiety, depression, fibromyalgia, chronic pelvic pain, chronic fatigue syndrome, temporomandibular joint dysfunction; **Fig. 1**).<sup>2,3</sup>

In the past, IBS was a diagnosis of exclusion, unless red flag symptoms were present, thereby indicating that another condition was present, such as celiac disease; others may have overlapping symptoms. The use of the Rome criteria has shifted



**Fig. 1.** A model of irritable bowel syndrome (IBS) and its associations with other clinical, intestinal, extraintestinal and psychiatric conditions. GERD, gastroesophageal reflux disease; IBS-C, IBS with constipation; IBS-D, IBS with diarrhea; IBS-M, mixed-type IBS; IBS-U, unsubtyped IBS; PMS, premenstrual syndrome. (From Enck P, Aziz Q, Barbara G, et al. Irritable bowel syndrome. *Nat Rev Dis Primers* 2016;2. <https://doi.org/10.1038/nrdp.2016.14>; with permission.)

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