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International Foundation for Gastrointestinal Disorders (www.iffgd.org)

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Understanding IBS

Irritable bowel syndrome (IBS) affects up to 5-10% of individuals worldwide. IBS affects children and adults of both genders. For most people, IBS is best understood as a long-term or chronic condition in which they experience reoccurring issues with abdominal pain or discomfort associated in some way to their bowel movements. Some patients with IBS, particularly those whose problems started after food poisoning or traveler's diarrhea (post-infectious IBS) can gradually get better over time. Others will have IBS for their entire lives.

In IBS, the digestive system appears normal on routine tests. For this reason, it has been referred to as a functional gastrointestinal (GI) disorder. However, there is increasing evidence that the GI symptoms experienced in IBS may be caused by one of more of the following:

- Abnormalities in gut motility
- Improper functioning of the immune system (over or under active)
- Abnormal amounts of bacteria and other organisms (like viruses and fungi) in the gut (microbiota)
- The central nervous system's interpretation of painful signals coming from the gut.

Connection between IBS and Food

The connection between food and health has been known for centuries, but there is increasing interest regarding how diet and nutrition affect gastrointestinal (GI) function and symptoms. This interest has largely been focused on using dietary changes to treat IBS. In patients with IBS, up to 2/3 of patients report increased GI symptoms after meals. Unfortunately, food-induced symptoms are common in IBS, and the IBS symptoms caused by eating are associated with decreased quality of life.

IBS symptoms are likely due to numerous causes. One cause is an exaggerated response of the body to food. For example, the colon normally should start squeezing when food enters the stomach. The body is smart, and it knows

that if a shipment of food is entering the stomach, the colon should start preparing to send a shipment out. This is called the gastrocolic reflex. In some patients, this reflex is too strong and the colon can start to squeeze too fast or strong when food is eaten. Another cause is when the bacteria in the small bowel breakdown food. Some foods are broken down via fermentation (metabolic process that produces chemical changes in organic substrates through the action of enzymes), which results in increased gas and water inside the intestines. This increased gas and water can then cause symptoms of diarrhea, bloating, and gas.

Dietary Therapies for IBS

Traditionally, dietary advice for IBS patients had included avoidance of caffeine, alcohol, fatty foods, and spicy foods. However, the growing evidence supporting dietary modification to treat IBS has led to new knowledge regarding additional therapies. The diet therapies noted below is a listing of some available diets used by those with IBS. The influence of diet is unique to each person. There is no generalized dietary advice that will work for everyone. During your appointment with your healthcare provider, they may take a brief dietary history to help identify dietary and/or other factors that may impact symptoms. You can also keep a diary for 2–3 weeks of dietary intake, symptoms, and any associated factors (like daily obligations, stressors, poor sleep, medications) to share with them.

Healthcare providers and patients need to talk about diet. Guidance needs to be provided by a knowledgeable healthcare professional (like a healthcare provider or registered dietitian). They can assess individual circumstances affecting gastrointestinal (GI) illness(es), while helping make sure

that nutritional needs are being met through a balanced diet, and healthy eating habits.

Download IFFGD Fact Sheet 147
Personal Daily Diary (IBS)
To assist you in tracking your symptoms

Diets to consider

1. **Fiber:** Fiber supplementation (total fiber intake of 25-30g per day) is a long-standing recommendation for IBS. However, the data regarding fiber to treat IBS is mixed. One study showed no significant benefit in bran treating IBS symptoms but showed psyllium did improve IBS symptoms. Soluble fiber (e.g. psyllium and pectin) is recommended instead of insoluble fiber (e.g. bran).

Learn more about Fiber Therapy with IFFGD
Fact Sheet No. 129
Fiber in the IBS Diet

2. **Low FODMAP Diet:** In 2014, researchers at Monash University published the first study regarding a diet that excluded specific types of carbohydrates. This diet was called the low FODMAP diet. FODMAP stands for fermentable oligosaccharides, disaccharides, monosaccharides, and polyols. FODMAPs and other nutrients are broken down by bacteria in the small bowel and colon via a process called fermentation. This process of fermentation produces gas and draws water into the intestines. The increased gas and water can cause diarrhea, bloating, and flatulence (passage of gas). Following a low FODMAP diet improved GI symptoms in approximately 52% to 86% of IBS patients.

It is important to understand that the low FODMAP diet is intended to be a short-term “diagnostic diet,” which helps patients identify trigger foods. The low FODMAP diet consists of a 3–6-week restriction of all FODMAP foods. If improvement in GI symptoms is noted, each food group is re-introduced over the next few weeks to help identify which food groups are triggers. Every patient is different, and everyone may have different triggers or different amounts of the trigger food that need to be consumed to cause symptoms. It is recommended that patients follow up with a dietitian during this process to ensure the process is done safely and effectively.

Learn more about the FODMAP diet with IFFGD
Fact Sheet No. 117
FODMAP Overview

3. **Gluten-Free Diet:** The role of gluten (a protein found in wheat, barley, and rye) as a cause of IBS symptoms is unclear. A survey of IBS patients demonstrated about one-fifth of IBS patients had tried a gluten-free diet, but the results of research studies are mixed regarding if a gluten-free diet is helpful in IBS. It should also be noted that wheat (which is high in gluten) is a high FODMAP food and is excluded in a low FODMAP diet. So, some of the benefit of a gluten free diet may be due to the lower FODMAP content rather than the lower gluten content.
4. **Low-histamine diet:** Histamines can be found in some preserved and fermented foods, such as canned foods, cheese, and alcohol. Although there are conditions linked with elevated histamine levels, such as mastocytosis, the role of histamine in IBS symptoms is a bit unclear as it has not been tested much in IBS patients. The interest in using a low histamine diet to treat IBS is supported by the fact histamine has been associated with diarrhea and abdominal pain. Also, IBS patients commonly associate their symptoms with foods containing histamine. Treatment of histamine intolerance involves avoiding histamine-containing foods for a few weeks and slowly reintroducing histamine-containing foods to identify trigger foods and/or food quantities. This process is very similar to the steps in the low FODMAP diet. Although there is growing interest in this diet, there is little evidence this diet is helpful, and more research needs to be done to determine if it helps decrease IBS symptoms.

Food Allergy vs. Food Sensitivity

Although very few adults have food allergies, up to 65% of IBS patients report food intolerances. Food allergies differ from food intolerances in that food allergies involve an immune response and food intolerances do not involve the immune system. There is increasing popularity of blood tests to evaluate food intolerances; however, research has not shown these tests to be helpful. There is concern that the increasingly popular IgG panel test can result in

- increased out-of-pocket cost to patients as this panel of tests is typically not covered by insurance,
- over-diagnosis of food sensitivities given the non-specific nature of IgG testing, and
- unnecessary elimination diets based on the findings of the test.

Overall, food allergy testing is not currently recommended for patients with IBS unless there is concern for a true food allergy.

Additional Considerations

IBS patients are at an increased risk of developing unhealthy eating patterns due to the frequent use of restrictive diets. Additionally, up to 90% of IBS patients will avoid certain foods to prevent or improve their GI symptoms. Although this can be a normal response, it can spiral out of control and lead to a long list of “bad” foods and a short list of “safe” foods. There is increasing awareness of severe, harmful food restrictions among adult GI patients, effecting approximately 15-20%.

Avoidance or restriction of foods can cause a decrease in quality of life and result in weight loss, nutritional deficiency, or dependence on tube feeds/oral supplements. In IBS patients, the food restriction is most often driven by a fear of developing GI symptoms and a desire to avoid GI symptoms. With the increasing use of restrictive diets to treat IBS symptoms, it is important for patients and providers to be aware of the risks and warning signs of harmful eating patterns. Dietary restriction to treat IBS symptoms is not recommended for patients with an active eating disorder, underweight body mass index (BMI), or ongoing weight loss. Stacking restrictive diets is also not recommended, particularly without the help of a registered dietitian.

IFFGD’s **Dietitian Listing** is a resource that allows you to search for a dietitian that is in your area or treats a specific condition. <https://www.iffgd.org/resources/dietitian-listing.html>

Summary

- Irritable bowel syndrome (IBS) affects 5% to 10% of the population and is defined by abdominal pain associated with a change in the frequency or form of stool.
- Up to 2/3 of IBS patients associate symptoms with eating food, and up to 90% of IBS patients exclude certain foods in an attempt to avoid or improve GI symptoms.
- A dietary approach is helpful for patients who identify a dietary component to their symptoms.
- Consuming 25-30 g of fiber per day avoiding caffeine, alcohol, fatty foods, and spicy foods are helpful for some IBS patients.

- Among the currently tested diets for IBS, the low FODMAP diet has been shown to be the most beneficial.
- Diets that include restricting or avoiding many types of foods, including the low FODMAP diet, should be guided by a dietitian.
- Restrictive diets for treatment of IBS typically include a few weeks of strict avoidance followed by slow reintroduction of foods to identify food triggers. The strict avoidance phase is not intended to be continued long-term.
- Restrictive diets are typically not recommended in patients with a low BMI, ongoing weight loss, or nutritional deficiencies.
- Food allergy tests should not be used to evaluate food intolerances in IBS patients.

About IFFGD

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This Fact Sheet is being provided in part, by Allergan and Ironwood Pharmaceuticals, and donors of IFFGD.