



(<https://gikids.org/>)

FODMAP

What is a FODMAP diet?

A FODMAP diet is a multi-step nutrition planning and learning process that can help people diagnosed with irritable bowel syndrome (<https://gikids.org/digestive-topics/irritablebowelsyndrome/>) (IBS). A registered pediatric dietitian can help families:

1. Learn about FODMAP foods that may trigger IBS symptoms. Food triggers are different for every person.
2. Test whether avoiding certain FODMAP foods improves IBS symptoms. This is often called the elimination phase.
3. Systematically assess which FODMAP foods are most bothersome. This is often called the challenge phase.
4. Manage gastrointestinal (GI) symptoms through food selection. Caretakers can gain confidence to provide meals and snacks that help their child grow and thrive. This is often called the personalization phase.

In addition to IBS, a FODMAP diet is also used to treat small intestinal bacteria overgrowth (SIBO) and inflammatory bowel disease (IBD). A FODMAP diet can be used to improve GI symptoms including cramping, diarrhea, stomach bloating, and gassiness, and sometimes constipation.

What are FODMAPs?

The letters in FODMAP stand for fermentable oligosaccharides, disaccharides, monosaccharides, and polyols. Each is a type of sugar found naturally in food or added to foods. Multiple sugar units linked together are called carbohydrates, so some people describe FODMAPs as kinds of carbohydrates.

What foods are high in FODMAPs?

Many foods contain FODMAPs, including fruits, vegetables, dairy, grains, plant-based proteins, and sweeteners. Below is a list of *some* foods that are high and low in FODMAPs. This list is not complete but provides *examples* of foods that children commonly eat plain or mixed with other foods. Many other foods also are high in FODMAPs.

| | High FODMAP | Low FODMAP |
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| Vegetables | Onions, garlic, green peas, mushrooms | Green beans, carrots, potatoes, tomatoes |
| Fruits | Apples, peaches, watermelon, raisins | Grapes, kiwi, strawberries, cantaloupe |
| Dairy | Cow's milk, yogurt, ice cream | Hard cheeses, lactose-free milk, feta cheese |
| Plant proteins | Beans, soy milk (from whole beans) | Almond "milk", tofu, peanuts |
| Grains | Breakfast cereals, muffins, crackers | Oats, rice, corn flakes, rice pasta |
| Sweeteners | High-fructose corn syrup, honey, candy | Maple syrup, table sugar, dark chocolate |

For more information about which foods contain FODMAPs, watch this video

(<https://www.youtube.com/watch?v=x49H9n83mUo&t=112s>) created by Dr. Amer Al-Nimr and funded through the NASPGHAN Foundation Innovations in Clinical Care Grant.

Why do FODMAPs trigger IBS symptoms?

FODMAPs are not digested by our bodies and travel from the stomach to the intestines. Every person has healthful bacteria living in their intestines, which like to digest FODMAPs. When bacteria digest FODMAPs, water is pulled into the gut and gas is produced. This process causes the troublesome symptoms of IBS.

IBS is a disorder of "gut-brain interaction." Children with IBS (<https://gikids.org/digestive-topics/irritablebowelsyndrome/>) have highly sensitive and overactive GI systems. The nerves of the GI system and the brain miscommunicate during digestion. As a result, a child with IBS can experience abdominal pain, cramping, and diarrhea or constipation after eating high-FODMAP foods.

Each person has a unique set of bacteria growing in the gut, which is called the "microbiome". Children with IBS have a different gut microbiome than children without IBS. This difference is another reason why certain FODMAPs trigger IBS symptoms.

Are there risks to a FODMAP diet?

Poor growth and nutrient deficiencies can happen when a FODMAP diet is used incorrectly. The elimination phase tests whether avoiding FODMAP foods reduces GI symptoms and should last two to three weeks. Longer FODMAP elimination is nutritionally risky for children because it can be low in calories, carbohydrates, vitamins, and minerals.

Children with IBS can develop fears and aversions around eating because they associate pain with eating. Applying a FODMAP diet can heighten or lessen those fears. Understanding your child's social-emotional health and developmental stages is one of the keys to success.

Guidance and support by a pediatric registered dietitian is highly recommended to minimize nutritional challenges. A skilled child nutrition expert can help your family avoid disruptions in growth and development and can give your child the best chance for success.

How do I know if a FODMAP diet could be right for my child?

First, talk to your pediatric gastroenterologist. However, a FODMAP diet improves symptoms for 60%–75% of patients.

Families choose a FODMAP diet for many reasons. A FODMAP diet supported by a pediatric dietitian could be right for your family if you:

- Already avoid foods to manage GI symptoms
- Feel stressed about planning meals and snacks
- Feel that IBS symptoms are getting in the way of social eating situations
- Worry about your child's nutrition and growth
- Notice your child's diet is becoming more limited in variety
- Tried a low-FODMAP diet on your own and it did not help

If your GI doctor's practice does not have a pediatric dietitian, you can find one through the Academy of Nutrition and Dietetics Find a Nutrition Expert program (<https://www.eatright.org/find-a-nutrition-expert>).

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➔ **Locate a Pediatric Gastroenterologist**

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