



# Overview of the Low-FODMAP Diet

The low-FODMAP diet was developed at Monash University in Australia as an approach for managing patients with functional gut disorders. It involves avoidance of foods that contain specific types of carbohydrates. **FODMAP** is an acronym that stands for **F**ermentable **O**ligosaccharides, **D**isaccharides, **M**onosaccharides, **A**nd **P**olyols. These are specific types of carbohydrates that your body may be unable to efficiently absorb. Since they aren't getting absorbed, certain bacteria in your digestive tract start to feed on them. These bacteria then produce byproducts and waste materials that can lead to symptoms such as gas, bloating, and diarrhea. This can also lead to an overgrowth of these bacteria in the small intestine which can contribute to several other health problems.

## What specific foods are to be avoided and what foods are okay to eat?

Foods that contain higher levels of FODMAPs are to be avoided while on the diet; some examples of foods that are to be avoided (high-FODMAP) and those that are permitted (low-FODMAP) are as follows.

### Animal Protein

Meats, poultry, and seafood themselves don't contain carbohydrates, so they are not high in FODMAPs. However careful attention must be paid to how animal proteins are prepared. Many sauces and side dishes may contain ingredients that are not permitted while following the low-FODMAP approach.

### Legumes

Most legumes are moderate- to high-FODMAP foods. Some may be tolerated in reduced serving sizes, but these foods will likely need to be removed from the diet during an initial elimination phase.

### Dairy & Alternatives

Low-FODMAP	High-FODMAP
<ul style="list-style-type: none"><li>■ Butter</li><li>■ Cheeses (2 oz. or less)</li><li>■ Brie, Cottage, Feta, Ricotta, Mozzarella, Swiss</li><li>■ Lactose Free Milk</li><li>■ Rice/Oat Milk</li><li>■ Tofu/Tempeh</li><li>■ Eggs</li></ul>	<ul style="list-style-type: none"><li>■ Buttermilk</li><li>■ Cream cheese</li><li>■ Cream</li><li>■ Ice Cream</li><li>■ Milk</li><li>■ Sour Cream</li><li>■ Yogurt</li></ul>

### Nuts & Seeds

Low-FODMAP	High-FODMAP
<ul style="list-style-type: none"><li>■ Brazil nuts</li><li>■ Chestnuts</li><li>■ Chia seeds</li><li>■ Flax seeds</li><li>■ Macadamias</li><li>■ Peanuts</li><li>■ Pecan halves</li><li>■ Pine nuts</li><li>■ Pumpkin seeds</li><li>■ Walnut halves</li></ul>	<ul style="list-style-type: none"><li>■ Almonds</li><li>■ Cashews</li><li>■ Coconut</li><li>■ Hazelnuts</li><li>■ Pistachios</li><li>■ Sesame seeds</li><li>■ Sunflower seeds</li></ul>

## Fats & Oils

Low-FODMAP	High-FODMAP
<ul style="list-style-type: none"> <li>■ Almond oil</li> <li>■ Avocado oil</li> <li>■ Butter/ghee</li> <li>■ Coconut milk</li> <li>■ Coconut oil</li> <li>■ Olives</li> <li>■ Olive oil (extra virgin)</li> <li>■ Rice bran oil</li> <li>■ Safflower</li> <li>■ Sesame oil</li> <li>■ Sunflower oil</li> <li>■ Walnut Oil</li> </ul>	<ul style="list-style-type: none"> <li>■ Avocado (may be tolerated in small amounts)</li> <li>■ Chocolate</li> <li>■ Soybean oil</li> <li>■ Salad dressings and sauces with sweeteners and high-FODMAP additives</li> </ul>

## Vegetables

Low-FODMAP	High-FODMAP
<ul style="list-style-type: none"> <li>■ Carrots</li> <li>■ Chives</li> <li>■ Eggplant</li> <li>■ Green Beans</li> <li>■ Kale</li> <li>■ Potato</li> <li>■ Zucchini</li> </ul>	<ul style="list-style-type: none"> <li>■ Artichoke</li> <li>■ Asparagus</li> <li>■ Garlic</li> <li>■ Many Legumes (beans)</li> <li>■ Mushrooms</li> <li>■ Onions</li> <li>■ Soy Beans</li> </ul>

## Fruits

Low-FODMAP	High-FODMAP
<ul style="list-style-type: none"> <li>■ Blueberries</li> <li>■ Cantaloupe</li> <li>■ Grapes</li> <li>■ Lemon</li> <li>■ Oranges</li> <li>■ Pineapple</li> <li>■ Strawberry</li> </ul>	<ul style="list-style-type: none"> <li>■ Apples</li> <li>■ Blackberries</li> <li>■ Cherries</li> <li>■ Mango</li> <li>■ Pear</li> <li>■ Watermelon</li> </ul>

## Sweeteners

Low-FODMAP	High-FODMAP
<ul style="list-style-type: none"> <li>■ Glucose</li> <li>■ Maple Syrup</li> <li>■ Sucrose (table sugar)</li> </ul>	<ul style="list-style-type: none"> <li>■ Agave</li> <li>■ High fructose corn syrup (HFCS)</li> <li>■ Honey</li> <li>■ Sugar Alcohols: Maltitol, Mannitol, Sorbitol, Xylitol</li> </ul>

## Why are some sweeteners (like glucose) allowed and others are not?

This all has to do with absorption. Glucose is a carbohydrate (sugar) that we are easily able to absorb. Other sweeteners have carbohydrates that may be not as easily absorbed. For example, problems can occur when there is more free-fructose in a food than glucose; this is why some fruits are okay on a low-FODMAP diet while others are not.

## Flavors

One challenge with the low-FODMAP diet is the restriction on using garlic and onions. FODMAPS aren't soluble in oils, so garlic and onions can be sautéed for about 5 minutes in olive oil and then discarded. The resulting flavored oil can be used to add flavor to dishes while leaving out those troublesome FODMAPS. Additionally, the green parts of scallions are safe to use, as are chives and most spices such as salt, pepper, and chile peppers.

## How should you implement the Low-FODMAP Diet?

- Print out this handout of high- and low-FODMAP foods.
- Organize your kitchen by identifying foods that should be eliminated, and stocking up on low-FODMAP foods.
- Pick a day to start the program. The program is typically done in three phases:

<b>Elimination:</b>	Remove all high-FODMAP foods for 4-8 weeks. If FODMAPs are the issue, symptoms should reduce significantly during this time.
<b>Reintroduction:</b>	Return to your healthcare provider to evaluate the results of the Elimination phase. If you have had a positive response, consider reintroducing FODMAPs slowly and specifically, one at a time, while closely monitoring for the reemergence of symptoms.
<b>Maintenance:</b>	A long-term eating plan can be designed with your healthcare provider that includes the addition of foods that seem to be tolerated (in both quality and quantity) and continued avoidance of foods that cause negative symptoms.

## For more extensive lists and discussion of the Low-FODMAP Diet see:

**IFM's Low-FODMAP Food Plan – Food List**

**Monash University: Low-FODMAP Diet for IBS**