

# Low FODMAP diet

## What is FODMAP?

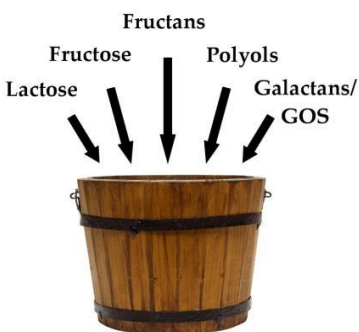
**FODMAP** stands for **F**ermentable **O**ligo-, **D**i-, and **M**ono-saccharides, **A**nd **P**olyols. The acronym is used to describe a specific group of carbohydrates that are poorly absorbed in the small intestine and can often cause symptoms such as excess gas, bloating, and diarrhea in certain individuals with Irritable Bowel Syndrome (IBS) and other functional bowel disorders.

## What carbohydrate foods are FODMAPs?

FODMAP carbohydrates include:

- Certain **sugars** (lactose and fructose) found in foods such as milk and dairy products, fruit, honey, and high-fructose corn syrup.
- **Sugar alcohols** (polyols), especially sweeteners containing sorbitol and mannitol.
- Certain types of **fiber** (fructans and galactans) found in wheat, beans, and some vegetables.

## FODMAP tolerance:



All dietary FODMAPS go into the same “bucket”.

All FODMAPs have the potential to cause unwanted symptoms. Yet, the degree in which FODMAPs are tolerated varies from person to person. An individual’s physical response to certain FODMAPs depends on their own personal level of sensitivity. Therefore, some FODMAP groups may trigger symptoms while others might not.

Think of the small intestine as a bucket. Each person has their own size bucket, or unique tolerance for FODMAP carbohydrates. FODMAPs have a cumulative effect. That is, the **amount**, not just the type of FODMAP consumed matters. When FODMAP intake exceeds the amount the “bucket” can hold (the small intestine’s capacity for digestion and absorption), it overflows into the large intestine. This may lead to gas, bloating, and diarrhea.

## The FODMAP approach

It is important to understand that IBS and other functional bowel disorders are not caused by eating FODMAPs, therefore eliminating FODMAPs from the diet will not cure the disease. However, removing certain FODMAPs from the diet may greatly improve symptoms.

The FODMAP approach takes into consideration tolerance to all FODMAP carbohydrate groups, not just specific foods. Often times in an attempt to ease symptoms, individuals tend to be overly restrictive with their diet. This leads to nutritional deficiencies. The goal of the FODMAP approach is to manage symptoms while allowing for the most varied and nutritious diet possible.

### **Low FODMAP diet:**

A low FODMAP diet aims to minimize gastrointestinal symptoms by removing common high FODMAP foods and replacing them with low FODMAP alternatives. It is intended to be a **short-term diet** and is usually followed for six weeks or less. It is not to be used as permanent diet solution. After symptoms improve, high FODMAP foods are gradually added back into the diet in smaller amounts.

### **FODMAP Elimination diet:**

A more aggressive approach is a FODMAP elimination diet. It should not be attempted without the help and supervision of either a Registered Dietitian or healthcare provider. An elimination diet is a **temporary** learning diet that is used to identify troublesome FODMAPs. It consists of three phases:

- **Elimination phase:** all FODMAPs are eliminated from the diet for approximately 3 weeks.
- **Challenge phase:** the body is challenged by reintroducing FODMAPs into the diet in an organized way. Symptoms are observed and problematic FODMAPs are identified.
- **Final phase:** problem FODMAPs are incorporated back into the diet as tolerated.

Rather than excluding all FODMAPs from the diet, the goal of both diet methods is to eliminate only the FODMAPs that are problematic. With proper management, few, if any foods must be removed from the diet permanently.

### **Is a low FODMAP diet right for you?**

A low FODMAP diet may not be appropriate for everyone. Before beginning a low FODMAP diet, first consult your healthcare provider to eliminate other causes of your symptoms. Low FODMAP diets have shown to be most successful for persons who have:

- An official diagnosis of Irritable Bowel Syndrome (IBS), Inflammatory Bowel Disease (IBD), or other functional bowel disorder with symptoms of excess gas, bloating, abdominal pain, diarrhea/constipation, etc.
- Tried and failed standard therapy (high-fiber diet, increased fluid intake, increased exercise, etc).
- Ruled out celiac disease as a possible diagnosis. This is important as restricting wheat from the diet will affect the accuracy of future celiac testing.
- Regular or irregular intake of high FODMAP foods.
- The desire and ability to modify their diet.

**\*\*Additional testing such as lactose and/or fructose breath tests is helpful (but not essential) prior to beginning a FODMAP diet.**

### **Enlist the help of a Registered Dietitian:**

If it is determined that a low FODMAP diet would be beneficial to you, consulting a Registered Dietitian (RD) who specializes in gastrointestinal nutrition can increase the likelihood of your success. The RD will help to identify major FODMAP culprits in your diet and develop an individualized diet plan centered around your eating habits and food preferences to improve both symptoms and quality of life.

# Low FODMAP Foods

Foods in the chart below are lower in FODMAPs than other foods and therefore are less likely to cause gastrointestinal symptoms.

- Foods shown in **bold font** contain a small amount of FODMAPs so should be limited to the portion size listed. For best results limit these items to one per meal.
- Foods shown in *italic font* contain gluten and are not safe for a gluten free diet.

**For the next 4-6 weeks eat only the foods listed below.**

<b>Grains and Starches</b>	
<b>Amaranth, ¼ cup</b> <b>Breakfast cereals, made with rice or corn, ½ cup*</b> Breakfast cereals, made with buckwheat, quinoa, amaranth or millet* Buckwheat flour Soba noodles <b>Oatmeal, ½ cup cooked</b> <i>Oat bran</i> <i>Oat flour</i> Gluten free bread* Gluten free cereal * Gluten free pretzels Grits Corn, rice, or quinoa pasta Corn tortillas	Corn tortilla chips Crackers, made with corn or rice Cornmeal Millet Polenta Popcorn Potato Potato chips Quinoa Rice cakes Rice (brown, white, or wild rice) Rice bran <b>Sourdough spelt bread, 1 slice</b> *With appropriate sweeteners
<b>Fruits (limit to 1 serving per meal – ½ cup or 1 small piece)</b>	
Banana, firm Blueberries Cantaloupe Clementine Cranberries, raw Cranberry juice, 100%, ½ cup Grapes, all kind Honeydew melon Kiwi Lemon Lime	Mandarin orange Orange Papaya Pineapple Raspberries Rhubarb Strawberries Tangelo ***No dried fruit or fruit juices allowed other than those listed. No canned fruits.
<b>Vegetables – serving size is 1 cup unless otherwise specified</b>	
Alfalfa sprouts Arugula Bamboo shoots Bean sprouts Bell peppers (green, red, orange, yellow)	Lettuce, any kind <b>Okra, 6 pods</b> Parsnip Pickle, dill or sour Potatoes

<p>Bok choy  <b>Broccoli, ½ cup</b>  <b>Cabbage, ½ cup</b>  Carrots  <b>Celery, ½ stalk</b>  Cherry tomatoes  Chili pepper  Collard greens  Cucumber  Eggplant  Endive  <b>Fennel bulb, ½ cup</b>  Green beans  Kale  Leek (leaves only)</p>	<p>Pumpkin  Radishes  Scallions/green onion (green part only)  Seaweed/nori  Spinach  Summer/yellow squash  <b>Sweet potato, ½ cup</b>  Swiss chard  <b>Tomato, plain canned (whole or diced), ½ cup</b>  Tomato, fresh  <b>Tomato juice, ½ cup</b>  Turnip  Water chestnuts  Zucchini</p>
<b>Meat/Fish/Poultry/Eggs</b>	
<p>Beef  Buffalo  Chicken  Duck  Eggs  Fish, any kind  Lamb</p>	<p>Pork  Seafood, any kind  Turkey    *** Avoid meats with breading and sauces made with agave syrup, fructose, high fructose corn syrup (HFCS), honey, and molasses</p>
<b>Dairy Products and Dairy Substitutes</b>	
<p><b>Cheese, American, 1 ounce</b>  Cheese, hard, regular or reduced-fat <ul style="list-style-type: none"> <li>Brie, Chambert, Cheddar, Colby, Feta, Havarti, Mozzarella, Swiss, Parmesan</li> </ul> Cottage cheese, lactose free  Dry curd cottage cheese  <b>Goat cheese, 1 ounce</b></p>	<p>Kefir, 99% lactose free  Milk, lactose-free <ul style="list-style-type: none"> <li>Rice milk, Almond milk, <b>Coconut milk, ½ cup</b></li> </ul> <b>Yogurt, Greek, ½ cup*</b>  Yogurt, lactose-free*    *With appropriate sweeteners</p>
<b>Nuts and Seeds (2 tablespoon per serving)</b>	
<p><b>Almonds, 10 total</b>  Almond butter  Chia seeds  <b>Hazelnuts, 10 total</b>  Macadamia nuts  Peanuts  Peanut butter</p>	<p>Pecans  Pine nuts  Pumpkin seeds  Sesame seeds  Sunflower seeds  Sun butter  Walnuts</p>
<b>Plant-Based Proteins</b>	
<p><b>Chickpeas, 1/4 cup</b>  <b>Lentils, canned (drained and rinsed), ½ cup</b>  <i>Quorn (grounds/mince only), 3 ounces</i></p>	<p>Tempeh  Tofu, firm</p>
<b>Fats/Oils</b>	
Butter	Margarine

Cocoa butter <b>Coconut cream, ½ cup</b>	Oils: canola, coconut, garlic-infused, olive, peanut, sesame, soybean, sunflower, and vegetable	
<b>Beverages – serving size is 1 cup (8 ounces) unless otherwise specified</b>		
<b>Beer, 12 fluid oz.</b> Black tea Chai tea, weak (without chicory root) <b>Coconut water, 4 ounces</b> <b>Coconut milk, 4 ounces</b> Coffee Dandelion tea, weak	Espresso, black (single or double shot) Green tea Herbal tea, weak (without chicory root) Peppermint tea <b>Spirits (gin, vodka, whiskey, scotch), no rum, 1 shot</b> White tea <b>Wine, red or white (not sherry or port), 4-6 ounces</b>	
<b>Desserts and Sweeteners – limit sugars/syrups to 1 ½ tablespoons</b>		
Baker's sugar Bar sugar Beet sugar Brown sugar Brown rice syrup Cane sugar Cane syrup <b>Chocolate, dark, 1 ounce</b> <b>Chocolate, semi-sweet, 1 ounce</b> Confectioner's sugar Corn syrup (not high-fructose) Corn syrup solids Dextrose Glucose	Glucose syrup Gluten-free baked goods* Golden syrup Granulated sugar <b>Ice cream*, lactose-free, ½ cup</b> <b>Jam or jelly*, 1 ½ tablespoons</b> Maltodextrin Maltose Palm sugar Pure maple syrup Raw sugar <b>Sorbet*, ½ cup</b> Sucrose  *with approved sweeteners and fruits	
<b>Condiments, Seasonings, and Others</b>		
Allspice Baking powder Baking soda Baker's yeast Basil Bay leaf Black pepper Chives (green part only) Cilantro Cinnamon <b>Cocoa powder, 1 tablespoon</b> Coriander Corn starch Cumin Dill Dry mustard powder	Fish sauce Five spice Ginger Ground chili powder (100% chilies) Guar gum Italian seasoning (without onion/garlic) <i>Malt extract</i> Marjoram <i>Modified food starch</i> Mustard Olives (green or black) Oregano Paprika Parsley Pectin Rosemary	Salt Soybean oil Soy lecithin <i>Soy sauce</i> Tamari Tarragon Tapioca Thyme Turmeric <b>Vinegar, balsamic, 1 tablespoon</b> Vinegar, other types Whey protein Worcestershire sauce Xanthan gum

# These Foods Contain FODMAPs

**Foods in the chart below are high in FODMAPs. You should avoid/decrease your intake of these foods for 4-6 weeks.** Once symptoms improve, you may try reintroducing high FODMAP foods to see how your body reacts. For best results, do this with the help and supervision of a Registered Dietitian.

<b>Grains and Starches</b>	
<i>All-purpose flour</i> <i>Barley</i> <i>Baked goods made with white, wheat, rye or multigrain flour</i> <i>Bran flakes</i> <i>Bread, white, wheat, rye, and multigrain</i> <i>Bulgur wheat</i> <i>Cereals made with wheat, rye, or barley</i> <i>Couscous</i> <i>Crackers, white, wheat, rye, and multigrain</i>	<i>Enriched flour</i> <i>Graham flour</i> <i>High fiber bread, cereal, granola bars with chicory root/inulin</i> <i>Pasta, white or whole wheat</i> <i>Rye</i> <i>Semolina flour</i> <i>Sprouted wheat</i> <i>Wheat berries</i> <i>White flour</i> <i>Whole wheat flour</i>
<b>Fruits</b>	
Apple Blackberries Boysenberry Canned fruit Cherries Fig Grapefruit Mango Nectarines	Peaches Pears Persimmon Plums Pomegranate Watermelon  ***Dried fruit and fruit juices of fruits listed are also high FODMAP foods.
<b>Vegetables</b>	
Artichokes Asparagus Beets Brussels sprouts Cauliflower Garlic Green peas	Mushrooms Onion Snow peas Sugar snap peas Sun dried tomatoes Sweet corn, canned, froze, on the cob Tomato paste or concentrate
<b>Meat/Fish/Poultry/Eggs</b>	
Meats with breading from wheat or rye and sauces made with agave syrup, fructose, high fructose corn syrup (HFCS), honey, and molasses.	
<b>Dairy Products and Dairy Substitutes</b>	
Butter milk Cottage cheese Cream cheese Custard Dry milk solids	Half and half Ice cream Milk from cows, goats, or sheep Ricotta cheese Sour cream

Eggnog Evaporated milk	Sweetened condensed milk Yogurt made from cow's milk or soy milk
<b>Nuts and Seeds</b>	
Cashews Pistachios	
<b>Plant-Based Proteins</b>	
All beans, lentils, and legumes not listed in the low FODMAP section.	
<b>Fats/Oils</b>	
None	
<b>Beverages</b>	
Chai tea (with chicory root) Chamomile tea (with chicory root) Fennel tea	Oolong tea Rum Soy milk
<b>Desserts and Sweeteners</b>	
Agave syrup Carob powder Erythritol Fructooligosaccharides/FOS Fructose Fructose solids Fruit juice concentrate (any type) High fructose corn syrup (HFCS) Honey	Isomalt Lacitol Malitol Mannitol Molasses Polydextrose Sorbitol Sugar cane fiber Xylitol
<b>Condiments, Seasonings, and Others</b>	
Chicory root extract or fiber Garlic salt/powder Hydrogenated starch hydrolysates Inulin Onion salt/ powder	