# The low-FODMAP diet

#### What is the low-FOMAP diet?

This type of diet limits "FODMAP" containing foods according to a list of foods that are either a) high-FODMAP, which are limited, or b) low-FODMAP which are the vast majority of the foods eaten while on this diet. "FODMAP" stands for:

Fermentable Oligosaccharides, Disaccharides, Monosaccharides, And Polyols.

These are a type of small carbohydrate that are **difficult for our body to absorb.** When our digestive tract has a lot of inflammation or is not efficiently absorbing nutrients due to "poor digestion," many nutrients will remain in food and contribute to disease through feeding bacteria and/or promoting food allergies. Most importantly the FODMAPS are **ideal food for bacteria in the digestive tract.** When bacteria use these carbohydrates as energy, they may overgrow causing a variety of different symptoms.

According to the University of Virginia Medical School division of Gastroenterology, "People with irritable bowel syndrome (IBS), a slow moving gut, or other bowel disorder may not tolerate foods with FODMAPS. This is because FODMAPS are not easily absorbed by the bowel. Symptoms of FODMAP intolerance include gas, abdominal discomfort, distention, bloating, fullness, nausea, and/or pain after eating foods containing FODMAPs."

Eating a low-FODMAP diet is usually the backbone of a comprehensive treatment plan for digestive disorders that includes supporting healthy digestion to improve FODMAP absorption, repopulating healthy bacteria in the gut, reducing digestive symptoms, and using medicines to limit the populations of bacteria that cause symptoms. Typically, a strict low-FODMAP diet is a temporary diet for up to 8 weeks while other treatments change the underlying digestive tract. Then foods are re-introduced carefully to watch for a return of digestive tract symptoms. Sometimes an individual will need to avoid specific foods for a longer time while deeper changes to the immune system take place.

Foods contains many other molecules besides FODMAPS, such as proteins that trigger the immune system or affect the nervous system. As such, the low-FODMAP diet is only part of healing the digestive tract, but for many patients with gas, bloating, abdominal pain, constipation, or diarrhea it can be a radical and almost immediate relief.

### Steps for following the low-FODMAP diet:

- 1. Look at the following lists of high-FODMAP foods and try eliminating ones that you eat a lot of. Sometimes this is all that is needed to relieve minor symptoms.
- 2. If symptoms are severe or persist, eliminate all high-FODMAP foods for at least 3 weeks (but often up to 8 weeks) as directed, while undergoing other treatments.
- 3. At the end of the low-FODMAP phase, try re-introducing high-FODMAP foods no more than one per day to watch for symptoms. During this time be sure to follow the other treatment guidelines that are given.

The following pages have a list of foods based on the approximate content of FODMAPs.

<sup>\*</sup>guide adapted from University of Virginia School of Medicine

LOW FODMAP (EAT THESE)	MODERATE (MAYBE OK BUT DONT EAT EVERYDAY)	HIGH FODMAP (AVOID THESE)	
Fruits:			
Limit these to no more than once per day and eat fruit by itself for best absorption.  Frozen fruits are better tolerated, and dried fruits or fruit juices are typically problematic due to higher concentrations of FODMAPs.			
Bananas Blueberries Cantaloupe / Melons Citrus fruit Grapefruit Grapes Kiwi Papaya Passion fruit Pineapple Raspberries Rhubarb Strawberries Tangelos	Canned fruit	Apples/Applesauce Apricots Avocados Blackberries Cherries Dried fruits (all types) Fruit juice (all types) Lychees Mangos Nectarines Peaches Pears Persimmons Plums Prunes Watermelons	
Vegetables:			
Cooked vegetables, such as steamed or in soups, are better tolerated.			
Bamboo Bok Choy Carrots Celery Chives Cucumber Eggplant Green beans Kales Lettuce Parsnip Pumpkin Radish Red Bell Pepper Spinach Squash Sweet Potatoe Turnip White Potato Zuchinni	Broccoli tops (not the stems)	Artichoke Asparagus Beets Broccoli stems Brussels sprout Cabbage Cauliflower Fennel Garlic Green bell peppers Leeks Mushrooms Okra Onions Shallots Sweet corn Tomato paste	

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LOW FODMAP (EAT THESE)	MODERATE (MAYBE OK BUT DONT EAT EVERYDAY)	HIGH FODMAP (AVOID THESE)		
Dairy:				
Fermented or hard cheese are tolerated to some degree, but dairy allergies are common (that is a different problem) so dairy is recommended to avoid altogether.				
Butter Cream Cream cheese Hard or aged cheeses Lactose-free products Kefir	American cheese	Cottage cheese Ice cream Milk Ricotta cheese Yogurt		
Grains:				
Cooked vegetables, such as steamed or in soups, are better tolerated.				
Cornmeal Millet Quinoa Rice	Buckwheat Oats Sourdough white bread	Barley Wheat Rye		
Legumes / Beans / Nuts:				
Cooked vegetables, such as steamed or in soups, are better tolerated.				
Tofu that is firm Pumpkin seeds Sesame seeds Sunflower seeds	Canned and drained beans Coconut Flax seeds Nuts and nut butters - (except cashew and pistachio) Soaked beans, eg. mung beans	Beans Cashews Chickpeas (hummus) Lentils Pistachios Soy products except firm tofu		
Sweeteners:				
Cooked vegetables, such as steamed or in soups, are better tolerated.				
Brown sugar Brown rice syrup Evaporated cane juice Granulated sugar Maple syrup (pure) Aspartame (not recommended) Saccarin Sucralose Stevia	Cocoa	Agave syrup High-fructose corn syrup Honey Crystalline fructose Maltitol Mannitol Sorbitol Sugar beet molasses Xylitol		
Drinks:				
Fruit juices, sugar containi	Fruit juices, sugar containing soft-drinks, and alcoholic beverages should be checked			

Fruit juices, sugar containing soft-drinks, and alcoholic beverages should be checked individually as the FODMAP content varies. Alcoholic drinks contain other problematic ingredients such as yeast byproducts, sulfites, that promote inflammation and can cause bacterial death, and should be limited for those reasons on a case-by-case basis.

# All pure oils, meats, and eggs are low-FODMAP

These foods can be eaten according to your preferences, though eggs are not recommended due to how commonly they cause food allergies.

#### Low-FODMAP diet structure

Basic principles:

- Select a variety of oils, and if non-vegan also meats, fish and poultry
- Plan to cook (soup or stir-fry) or steam vegetables with 1-2 meals per day, dressed with oils with a side of protein
- Expect to eat a raw salad most days of the week, made with dressing and toppings
- Choose nuts and seeds low in FODMAPs such as walnuts, almonds, peanuts, pecans, pine nuts, macadamia nuts and sesame seeds.

For meal ideas and recipes to suit your individual needs, you will need to work with a professional or structure the diet yourself based on established guides. One good resource can be found at: https://www.dietvsdisease.org/diy-low-fodmap-diet/

The guide for this handout can be found at: <a href="https://med.virginia.edu/ginutrition/wp-content/uploads/sites/199/2014/04/Low-FODMAP-Diet\_10\_28\_14.pdf">https://med.virginia.edu/ginutrition/wp-content/uploads/sites/199/2014/04/Low-FODMAP-Diet\_10\_28\_14.pdf</a>

# **Comprehensive treatment includes:**

- 1. Enhancing digestion and activating "rest and digest"
  - Contrast hydrotherapy 1-2 times daily (see handout)
  - Eating at a regular time everyday, whenever possible
  - Exercise 2-3 times per week
  - Taking several deep breathes before each meal
  - Eat meals and even snacks while sitting at a table, not while standing or driving
  - Finish your last meal at least 3 hours before your bedtime
  - Take digestive enzymes 10 mins before each meal
  - Address stress and anxiety with professional guidance and hormone treatment
  - Prescription for low-dose naltrexone 4 days per week (resting 3 days per week)
- 2. Repopulating digestive tract and repairing the GI tract
  - Probiophage DF 1 cap 10 mins before a meal, once per day
  - GI revive powder, mixed in water as directed
  - Glutagenic powder, mixed in water as directed
- 3. Reducing symptoms of digestive distress
  - Castor oil hot pack, as needed for abdominal pain and bloating (see handout)
  - Peppermint and catnip enema
- 4. Limit problematic bacteria in the digestive tract using foods and medicines (not antibiotics)