

The Low FODMAP Diet Program for Irritable Bowel Syndrome

niagarahealth

The Low FODMAP Diet Approach

The low FODMAP diet is a diet that limits foods that are high in **FODMAPs** to help manage the symptoms of Irritable Bowel Syndrome (IBS).

How do FODMAPs increase IBS symptoms?

FODMAPs are short-chain carbohydrates that are found in various types of foods. A common characteristic of FODMAPs, is that they are poorly absorbed in the small bowel. As a result of this poor absorption in the small bowel FODMAPs often reach the large bowel, where they are rapidly digested by bowel bacteria. This rapid digestion by bacteria often causes an increase in gas in the bowel, particularly when larger amounts of FODMAPs are consumed. This is a normal part of digestion, however this increase in gas can increase symptoms such as abdominal bloating and distention, abdominal discomfort, and excess flatulence for many people with IBS. Some FODMAPs can also increase the amount of water in the bowel when consumed in larger amounts. Larger loads of water in the bowel can also increase IBS symptoms, including diarrhea and bowel urgency.

Can following a low FODMAP diet cure my IBS?

While following a low FODMAP diet may improve your symptoms, this diet is not considered a cure for IBS. FODMAPs can increase IBS symptoms temporarily due to the increase in gas and water loading in the bowel. Research to date has found that about 3 out of 4 people with IBS see improvement in their symptoms when following a low FODMAP diet.

What are examples of FODMAPs?

There are 5 types of carbohydrates that are considered FODMAPs. These are:

- 1) **Lactose**
- 2) **Fructose**
- 3) **Fructans**
- 4) **GOS (galacto-oligosaccharides)**
- 5) **Polyols**

Tolerance of FODMAPs and IBS

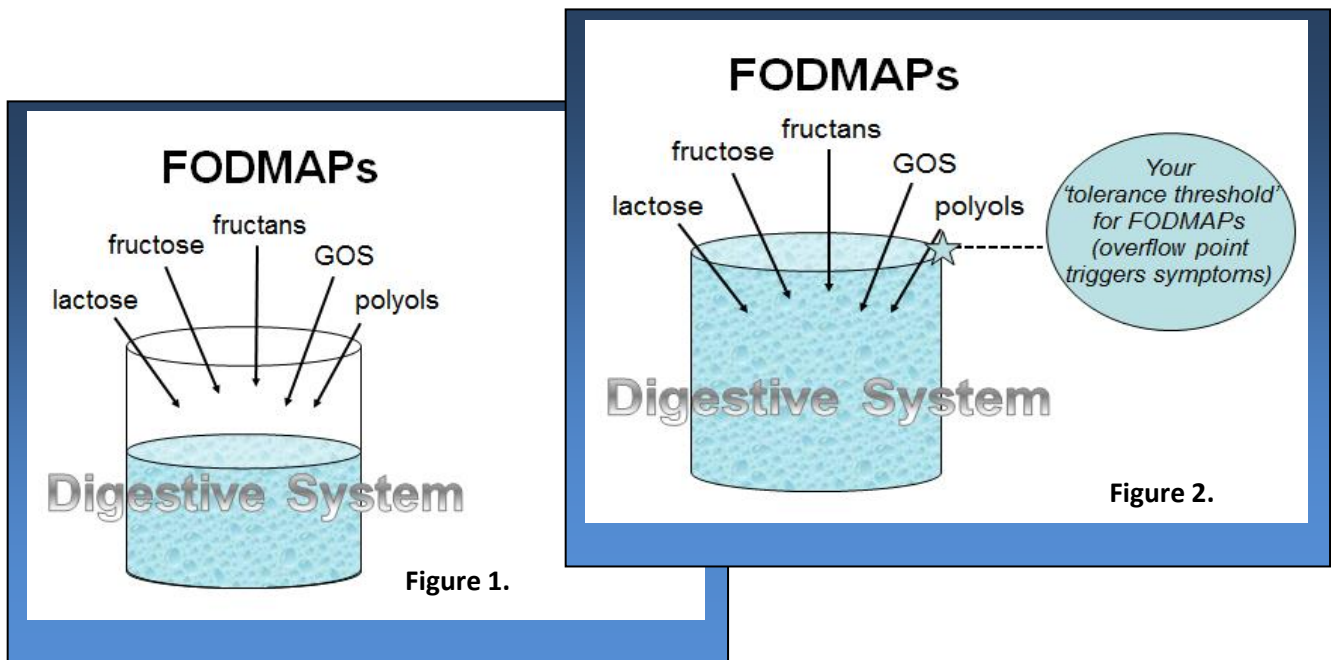
Tolerance of foods that are high in FODMAPs can vary for people with IBS. Some people with IBS can tolerate a larger amount of food high in FODMAPs in their diet, while others may find that consuming a small amount of food high in FODMAPs can increase symptoms.

Tolerance of one FODMAP in particular, lactose, can vary depending on your ability to absorb this carbohydrate. Lactose can often cause symptoms for people with IBS if it is poorly absorbed in the small bowel. This is referred to as *lactose malabsorption*. Lactose malabsorption occurs in about 40% of people with IBS. For people with IBS that do not have lactose malabsorption, lactose is often well tolerated.

To help illustrate the effect of consuming FODMAPs when you have IBS, you can think of your digestive system as a 'cup' (see Figure 1.). All the FODMAPs (lactose, fructose, fructans, GOS, polyols) you consume from different foods go into this same cup, and contribute to the total FODMAP load of this cup. If you consume too high of a FODMAP load, this can cause too much gas production and/or water loading, which can cause your cup can overflow and symptoms to occur (Figure 2).

Different people with IBS can have different sized cups. One person's cup may overflow if a small amount of FODMAPs are consumed, whereas another person's cup may not overflow until a larger amount of FODMAPs are consumed.

If FODMAPs increase your IBS symptoms, it can be a learning process to determine how much of a FODMAP load your digestive system can handle.



The 2 phases of the low FODMAP diet approach

There are 2 phases to the low FODMAP diet approach.

The first phase is *The FODMAP Elimination Diet*. The FODMAP elimination diet is a temporary diet of 4 - 8 weeks. During this period, FODMAPs are avoided in the diet to determine if your symptoms improve with this diet approach.

The second phase is *Re-introducing High FODMAP Foods into your Diet*. This purpose of this second phase is to re-introduce high FODMAP foods into your diet to explore your tolerance and to minimize dietary restrictions where possible.


Your dietitian can help guide you through these 2 phases.

Phase 1: The FODMAP Elimination Diet

During the FODMAP elimination diet phase it is recommended that you consume foods that contain little or no FODMAPs for a period of 4 - 8 weeks to determine if this diet approach is effective for you. Symptom improvement may be seen within 1 - 2 weeks for some people adherent to the diet, while in others it may take up to a few weeks for symptom improvement. About 1 in every 4 people with IBS will see limited or no symptom improvement on a low FODMAP diet.

A table has been provided that lists foods and ingredients that are *Low FODMAP* and *High FODMAP*. When following the FODMAP elimination diet it is recommended you consume only foods from the *Low FODMAP* category where possible.

If you happen to consume high FODMAP food while on the FODMAP elimination diet, try to record the high FODMAP food you consumed and whether this had any effect on your IBS symptoms.

Some food products listed under *Low FODMAP* include the symbol of a magnifying glass . These food products can sometimes contain high FODMAP ingredients. The magnifying glass is a reminder for you to check the ingredient list of these food products before consuming them to confirm whether they contain any high FODMAP ingredients.

Some foods listed under *Low FODMAP* are labelled ^{Moderate}. These are foods that have a moderate amount of FODMAPs (higher than low FODMAP foods, but lower than high FODMAP foods). These foods are often reported to be tolerated, and are therefore allowed on the FODMAP elimination diet. If you notice that any of these foods cause symptoms however, try reducing them to a smaller portion size (e.g. 1/2 portion size) to improve tolerance.

Some foods listed under *High FODMAP* are labelled ^{Lactose}. These are foods that are high in lactose. If you have had a negative test result for lactose malabsorption and it is clear that you can tolerate lactose in your diet, your dietitian will often suggest that you can consume high lactose foods while on the FODMAP elimination diet. If this is the case, it is still a good idea to read the ingredient list of high lactose foods to ensure other high FODMAP ingredients have not been added.

While information regarding the FODMAP content of foods is increasing, there are still some foods where this information is not available. Some foods are therefore not included in the food table. If you notice certain foods are not listed in the food table provided, it is suggested that you also limit these foods while on the FODMAP elimination diet.

If you are aware of any other foods that you have an adverse reaction to, it is recommended that you avoid these foods as well while on the FODMAP elimination diet.

It is best to complete the FODMAP elimination diet during a period when it is practical for you to follow the diet. For example, it can be more difficult to complete the FODMAP elimination diet when there are many stressors, food-related social activities, or other priorities in your life that will prevent you from following the diet.

Symptom scoring tool

A symptom scoring tool is provided to help track your symptom response to the FODMAP elimination diet. The scale on the symptom scoring tool ranges from 0 (*no symptoms*) to 10 (*very severe symptoms*). Consider how severe and also how frequent each symptom is when scoring. For example, a symptom that is severe and frequent would tend to score higher than a symptom that is severe but infrequent.


Record the severity of your symptoms on the scoring tool before you start the FODMAP elimination diet, and then again after you complete the diet. You can compare these scores to help evaluate the effectiveness of the diet for you.

Complete *before* the FODMAP elimination diet


Symptoms	Symptom score										
	(0 = no symptoms, 10 = very severe symptoms)										
Abdominal discomfort/cramping	0	1	2	3	4	5	6	7	8	9	10
Abdominal bloating	0	1	2	3	4	5	6	7	8	9	10
Abdominal distension	0	1	2	3	4	5	6	7	8	9	10
Excess gas	0	1	2	3	4	5	6	7	8	9	10
Diarrhea	0	1	2	3	4	5	6	7	8	9	10
Constipation	0	1	2	3	4	5	6	7	8	9	10
Bowel urgency	0	1	2	3	4	5	6	7	8	9	10
Nausea	0	1	2	3	4	5	6	7	8	9	10
Heartburn	0	1	2	3	4	5	6	7	8	9	10
Other:	0	1	2	3	4	5	6	7	8	9	10
	0	1	2	3	4	5	6	7	8	9	10







Complete *after* the FODMAP elimination diet

Symptoms	Symptom score										
	(0 = no symptoms, 10 = very severe symptoms)										
Abdominal discomfort/cramping	0	1	2	3	4	5	6	7	8	9	10
Abdominal bloating	0	1	2	3	4	5	6	7	8	9	10
Abdominal distension	0	1	2	3	4	5	6	7	8	9	10
Excess gas	0	1	2	3	4	5	6	7	8	9	10
Diarrhea	0	1	2	3	4	5	6	7	8	9	10
Constipation	0	1	2	3	4	5	6	7	8	9	10
Bowel urgency	0	1	2	3	4	5	6	7	8	9	10
Nausea	0	1	2	3	4	5	6	7	8	9	10
Heartburn	0	1	2	3	4	5	6	7	8	9	10
Other:	0	1	2	3	4	5	6	7	8	9	10
	0	1	2	3	4	5	6	7	8	9	10







Food Type	Low FODMAP <i>Food/Ingredients that are allowed during the FODMAP elimination diet</i>	High FODMAP <i>Food/Ingredients to avoid during the FODMAP elimination diet</i>
Fruit 	<p><i>Limit large servings of fruit. It is recommended to limit low FODMAP fruit to 1 serving at a time and separate each fruit serving by at least 2 hours. One fruit serving equals 1 small/medium sized fruit or 1/2 cup.</i></p> <p><i>Limit dried low FODMAP fruit, and concentrated fruit products. If you consume juice from low FODMAP fruit, it is recommended you limit the serving size to 1/3 cup.</i></p> <ul style="list-style-type: none"> ✓ banana (very ripe bananas can be higher FODMAP) ✓ blueberries <small>Moderate</small> ✓ cantaloupe ✓ carambola (starfruit) ✓ coconut ✓ cranberries ✓ cumquats ✓ dragon fruit ✓ durian ✓ grapefruit <small>Moderate</small> ✓ grapes* ✓ honeydew melon 	<ul style="list-style-type: none"> ✗ apple ✗ apricot ✗ avocado ✗ blackberries ✗ boysenberry ✗ cherries ✗ dates ✗ dried high FODMAP fruit ✗ dried high FODMAP fruit bars ✗ figs, fresh and dried ✗ lychee ✗ mango ✗ nectarine ✗ peach ✗ pear ✗ persimmon ✗ plum ✗ pomegranate ✗ prune ✗ watermelon



	Low FODMAP	High FODMAP
Fruit	<ul style="list-style-type: none"> ✓ kiwi ✓ lemon ✓ lime ✓ longan ^{Moderate} ✓ mandarin ✓ orange ✓ papaya ✓ passion fruit ✓ pineapple ✓ plaintain ✓ rambutan ^{Moderate} ✓ raspberries ^{Moderate} ✓ rhubarb ✓ strawberry* <p><i>* There is some conflicting data on FODMAP content – limit quantity or avoid if these foods cause symptoms.</i></p>	
Vegetables 	<ul style="list-style-type: none"> ✓ alfalfa ✓ bamboo shoots ✓ bean sprouts ✓ bok choy ✓ butternut squash ^{Moderate} ✓ carrots ✓ cassava ✓ chicory leaves ✓ choy sum ✓ collard greens ✓ cucumbers ✓ eggplant ✓ endive, leaves ✓ fennel (bulb, leaves) ✓ green beans ✓ green bell pepper 	<ul style="list-style-type: none"> ✗ asparagus ✗ beetroot ✗ broccoli* ✗ Brussels sprouts ✗ cabbage* (<i>nappa cabbage is low FODMAP</i>) ✗ cauliflower ✗ celery ✗ garlic (<i>garlic-infused vegetable oil may be tolerated</i>) ✗ globe artichoke ✗ leeks (whole or bulb) ✗ mushrooms ✗ onions ✗ peas ✗ shallots








	Low FODMAP	High FODMAP
Vegetables	<ul style="list-style-type: none"> ✓ kale ✓ kabocha squash ✓ leek leaves (<i>avoid leek bulb, as it is high in FODMAPs</i>) ✓ lettuces (all types) ✓ nappa cabbage ✓ okra ✓ olives ✓ parsnip ✓ potatoes ✓ pumpkin (canned) ^{Moderate} ✓ radish ✓ red bell pepper ✓ red and green chilli peppers ✓ rutabaga ✓ seaweed, Nori ✓ spaghetti squash ✓ spinach ✓ spring onion greens (<i>avoid bulb, as it is high in FODMAPs</i>) ✓ sweet potato ^{Moderate} ✓ swiss chard (silver beet) ✓ tomato, tomato paste (<i>avoid tomato sauce with onion or garlic, as it is high in FODMAPs</i>) ✓ turnip ✓ water chestnut ✓ zucchini 	<ul style="list-style-type: none"> ✗ snow peas ✗ sugar snap peas ✗ tomato (e.g. pasta) sauce with onion or garlic <p><i>* There is some conflicting data on FODMAP content – avoid for the elimination phase unless your dietitian advises otherwise.</i></p>
Grain Products 	<ul style="list-style-type: none"> ✓ arrowroot flour ✓ buckwheat groats, buckwheat flakes, buckwheat flour ✓ field corn (e.g. corn meal, corn thins, corn flour, corn tortilla) 	<ul style="list-style-type: none"> ✗ amaranth flour ✗ barley ✗ muesli/muesli bar ✗ rye bread

	Low FODMAP	High FODMAP
Grain Products	<p>chips, corn tacos, corn puffs, corn polenta, corn bread, corn flakes) <i>(avoid sweet corn, as it is high in FODMAPs)</i></p> <p>✓ gluten-free bread (some contain high FODMAP ingredients – check label) </p> <p>✓ oats ^{Moderate}, oatmeal ^{Moderate}, oat bran</p> <p>✓ millet, millet flour, puffed millet</p> <p>✓ quinoa, puffed quinoa, quinoa flour, quinoa flakes</p> <p>✓ rice, rice cakes , rice crackers and crisps , rice crisp cereal e.g. (Rice Krispies) , rice pasta/noodles, cream of rice cereal, rice paper, puffed rice, rice flour, rice bran</p> <p>✓ tapioca</p> <p>✓ teff flour</p>	<p>✗ spelt (e.g. spelt flakes, spelt pasta)</p> <p>✗ sweet corn (e.g. corn on the cob, raw or cooked corn kernels) <i>(products made from field corn are allowed)</i></p> <p>✗ wheat and products made with significant amounts of wheat flour. For example:</p> <ul style="list-style-type: none"> ▪ breads ▪ naan/roti ▪ pasta/noodles ▪ couscous ▪ cereals ▪ cakes, baked goods, pastries, cookies ▪ crackers, biscuits ▪ breadcrumbs, batter ▪ wheat bran
Milk and Alternatives 	<p>✓ almond milk beverage</p> <p>✓ butter</p> <p>✓ certain cheeses only (Cheddar, Edam, Limburger, Mozzarella, Romano, Swiss, Parmesan, Provolone, Brie, and Camembert)</p> <p>✓ coconut milk</p> <p>✓ coconut milk beverage ^{Moderate}  <i>(avoid coconut water, as it is high in FODMAPs)</i></p>	<p>✗ buttermilk ^{Lactose}</p> <p>✗ cream (light cream, half and half, whipping cream) ^{Lactose}</p> <p>✗ cream sauces ^{Lactose}</p> <p>✗ cream soups ^{Lactose}</p> <p>✗ evaporated milk ^{Lactose}</p> <p>✗ Feta cheese ^{Lactose}</p> <p>✗ fresh cheeses (e.g. Ricotta, Cottage) ^{Lactose}</p> <p>✗ ice cream ^{Lactose}</p> <p>✗ kefir ^{Lactose}</p>

	Low FODMAP	High FODMAP
Milk and Alternatives	<ul style="list-style-type: none"> ✓ custards and puddings made with lactose-free milk 🔍 ✓ hemp milk ✓ ice cream substitutes (e.g. dairy-free gelato, sorbet) 🔍 ✓ lactose-free ice cream 🔍 ✓ lactose-free milk ✓ lactose-free yogurt 🔍 ✓ rice milk beverage ✓ soy cheese 	<ul style="list-style-type: none"> ✗ malted milk ^{Lactose} ✗ oat milk ✗ processed cheese, cheese spreads ^{Lactose} ✗ puddings, custards ^{Lactose} ✗ regular and low-fat milk (cow, goat, sheep) ^{Lactose} ✗ regular and low-fat yogurt ^{Lactose} ✗ sherbet ^{Lactose} ✗ skim milk powder ^{Lactose} ✗ sour cream ^{Lactose} ✗ soy milk ✗ sweetened condensed milk ^{Lactose} ✗ whey powder ^{Lactose}
Meat and Alternatives 	<ul style="list-style-type: none"> ✓ chickpeas, canned (limit to ½ cup or less) ^{Moderate} ✓ eggs ✓ fish ✓ lentils (limit to ½ cup or less) ^{Moderate} ✓ low FODMAP nuts (<i>limit portion to small handful at a time</i>): <ul style="list-style-type: none"> • Brazil nuts • chestnuts • hazelnuts ^{Moderate} • pine nuts • peanuts • pecans • macadamia nuts • walnuts ✓ peanut butter (<i>limit portion to 1-2 tbsp at a time</i>) 	<ul style="list-style-type: none"> ✗ almonds ✗ cashews ✗ legumes, most types except canned chickpeas and lentils (e.g. red kidney beans, baked beans, navy beans, lima beans, butter beans, borlotti beans, mixed beans, split peas, soy beans) ✗ pistachio nuts ✗ textured soy protein ✗ tofu (silken) (<i>note firm tofu is low FODMAP</i>)

	Low FODMAP	High FODMAP
Meat and Alternatives	<ul style="list-style-type: none"> ✓ pea protein powder  ✓ poultry (chicken, turkey) ✓ red meat ✓ rice protein powder  ✓ seafood ✓ seed butters (e.g. sunflower seed butter, pumpkin seed butter) <i>(limit portion to 1-2 tbsp at a time)</i> ✓ seeds (e.g. hemp seeds, flaxseeds, sunflower seeds, pumpkin seeds, sesame seeds, chia seeds) <i>(limit portion to a small handful at a time)</i> ✓ tempeh ✓ tofu (firm) <i>(note silken tofu is high FODMAP)</i> ✓ 100% whey protein isolate 	
Oils and Fats 	<ul style="list-style-type: none"> ✓ all vegetable oils ✓ flavoured vegetable oils (e.g. garlic-infused vegetable oil, chili-infused vegetable oil) ✓ butter ✓ margarine ✓ mayonnaise  	<ul style="list-style-type: none"> ✗ cream cheese ^{Lactose} ✗ cream sauce ^{Lactose} ✗ sour cream ^{Lactose} <div style="border: 1px solid black; background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Caution (check ingredients): commercial salad dressings often contain ingredients that are high in FODMAPs (e.g. garlic, onion) </div>
Sweeteners 	<ul style="list-style-type: none"> ✓ artificial sweeteners <u>not</u> ending in 'ol' (e.g. Stevia, aspartame, Splenda) ✓ glucose 	<ul style="list-style-type: none"> ✗ agave syrup ✗ crystalline fructose ✗ fructose ✗ golden syrup


	Low FODMAP	High FODMAP
Sweeteners	<ul style="list-style-type: none"> ✓ maple syrup ✓ rice syrup ✓ table sugar (sucrose) <p><i>The following are different names of low FODMAP sugars:</i></p> <ul style="list-style-type: none"> • beet sugar • brown sugar • cane sugar • castor sugar • coconut sugar • confectioner's sugar • granulated sugar • icing sugar • invert sugar • palm sugar • refined sugar • sugar • turbinado sugar <p><i>Use low FODMAP sugars in moderation</i></p>	<ul style="list-style-type: none"> ✗ glucose-fructose (<i>this is how high fructose corn syrup is labelled in Canada</i>) ✗ high fructose corn syrup (HFCS) ✗ honey ✗ molasses ✗ polyols (e.g. sorbitol, mannitol, xylitol, maltitol and isomalt) <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">  Caution (check ingredients): sugar-free products (e.g. sugar-free gum) may contain added polyols </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">  Caution (check ingredients): the following may contain added glucose-fructose (high fructose corn syrup): <ul style="list-style-type: none"> - soft drinks - fruit drinks - sweetened beverages - candies - sweetened cereals - syrups - condiments - sweetened snack products </div>

	Low FODMAP	High FODMAP
Herbs, Spices and Condiments 	<ul style="list-style-type: none"> ✓ chutney  ✓ fish sauce  ✓ horseradish ✓ lemon and lime juice ✓ mint sauce ✓ mustard  ✓ oyster sauce  ✓ pepper ✓ plum sauce <small>Moderate</small> ✓ salt ✓ soy sauce  ✓ vanilla extract, real or imitation ✓ vinegars, most varieties (including apple cider vinegar)  ✓ wasabi paste/powder <p><i>The following spices are low in FODMAPs, but use caution with large amounts of spices:</i></p> <ul style="list-style-type: none"> ✓ cinnamon ✓ chives ✓ green leafy herbs (e.g. fresh or dried basil, parsley, oregano, cilantro, coriander, dill, marjoram, thyme, tarragon, rosemary, mint) ✓ ginger root ✓ ground chilli powder ✓ paprika ✓ seed spices (e.g. coriander, mustard, cumin, caraway, dill seed, celery, sesame seed, poppy seed, nutmeg) ✓ turmeric 	<ul style="list-style-type: none"> ✗ barbeque sauce, most types ✗ garlic salt or powder ✗ hummus ✗ ketchup, sweetened with glucose-fructose ✗ onion salt or powder ✗ relish

	Low FODMAP	High FODMAP
Beverages	<ul style="list-style-type: none"> • beer • brewed and instant regular and decaffeinated coffee or espresso • black tea • chai tea ^{Moderate} • dandelion tea ^{Moderate} • green tea • white tea • peppermint tea • unsweetened spirits (vodka, gin, whiskey) • red, rose, and white wine • sherry (dry) • water <p><i>Alcohol and caffeine can increase IBS symptoms for some people. Your dietitian may therefore advise you to limit alcohol and caffeine during the FODMAP elimination diet.</i></p>	<ul style="list-style-type: none"> ✗ chamomile tea ✗ coconut water (<i>coconut milk/coconut milk beverage is allowed</i>) ✗ dessert wine, ice wine ✗ fennel tea ✗ fortified wine: port, sherry (sweet) ✗ kombucha tea ✗ oolong tea ✗ rum ✗ some alcoholic cocktails (commercial mixes often contain glucose-fructose e.g. pina colada, margarita, coolers)
Other	<ul style="list-style-type: none"> ✓ cocoa powder ✓ soy lecithin ✓ ingredients not listed or derived from foods listed under 'High FODMAP' 	<ul style="list-style-type: none"> ✗ carob powder ✗ chicory root extract ✗ FOS ✗ GOS ✗ inulin

Nutrient data used to classify foods in the FODMAP food table was obtained from published studies, USDA nutrient database and the NUTTAB database. In cases where FODMAP composition data was not available foods were classified based on estimates from the Low FODMAP diet education resources prepared by the research team in the Dept. of Gastroenterology, Central Clinical School, Monash University, Australia (booklet, Smartphone application, website blog). FODMAP classification of some foods in this table may vary with other educational resources related to factors such as variance in FODMAP composition data of foods, portion size standards of foods, and clinical experience.

Reading food labels

When you start the FODMAP elimination diet, you will find you need to spend some time reading the ingredient list of food products to see if they contain added high FODMAP ingredients. The magnifying glass  found on foods listed under *Low FODMAP* in the food tables is a reminder to check the ingredient list of these food products, as they can sometimes contain added high FODMAP ingredients.

Nutrition Facts	
Serving size: 1 slice (46g)	
Amount	% Daily value
Calories 142	
Total Fat 2g	2%
Saturated 0g	0%
+ Trans 0g	
Cholesterol 0mg	
Sodium 160mg	7%
Total Carbohydrate 28g	10%
Fibre 3g	11%
Sugars 6g	
Protein 4g	
Ingredients: whole wheat flour, inulin, cornmeal, vegetable oil, guar gum, salt, glucose-fructose, evaporated cane juice	

High FODMAP ingredients (main ingredient) →

→ High FODMAP ingredient (minor ingredient)

Quick reference list for label reading

When reading the ingredient list of food products you can use the quick reference list provided for common high FODMAP ingredients and sweeteners to help you identify foods with high FODMAP ingredients. Some high FODMAP ingredients are likely only an issue if they are present in larger amounts in the food product. These high FODMAP ingredients are listed under: *Avoid if a main ingredient in a food product.* Other FODMAP ingredients may cause

symptoms for some people in only small amounts e.g. a tablespoon or sometimes less. These high FODMAP ingredients are listed under: *Avoid if a minor ingredient in a food product.*

Items on the ingredient list of a food product are listed in order of highest weight to lowest weight. Ingredients that are present in larger amounts in a food product are therefore listed first, followed by ingredients present in smaller amounts. It is often difficult to tell precisely how much of an ingredient is in a food product from the ingredient list alone. As a general guideline, ingredients that are listed first on the ingredient list can be considered **main** ingredients, and ingredients listed last on the ingredient list can be considered **minor** ingredients. If you are not sure whether a food product is low FODMAP, it is sometimes best to simply avoid that food product during the elimination phase.

If a food product has *multiple* high FODMAP ingredients, it is also generally a good idea to avoid this food product during the elimination phase as a precaution unless otherwise advised by your dietitian.

Quick reference list of high FODMAP ingredients and sweeteners

Avoid if a main ingredient in a food product

- ✗ apple purée
- ✗ almond meal/flour
- ✗ amaranth flour
- ✗ barley flour
- ✗ buttermilk ^{Lactose}
- ✗ chickpea flour
- ✗ cream ^{Lactose}
- ✗ curds ^{Lactose}
- ✗ dried high FODMAP fruits
- ✗ fruit juice concentrate (e.g. concentrated apple juice, concentrated pear juice)
- ✗ pea flour
- ✗ pear purée
- ✗ rye flour
- ✗ soy or soybean flour (note: soy lecithin and soybean oil are low in FODMAPs and allowed on the FODMAP elimination diet)
- ✗ soy milk
- ✗ spelt flour
- ✗ textured soy protein
- ✗ wheat flour

Avoid if a minor ingredient in a food product

- ✗ agave syrup
- ✗ carob powder
- ✗ chicory root extract
- ✗ crystalline fructose
- ✗ FOS (fructo-oligosaccharides)
- ✗ fructose
- ✗ garlic salt or powder
- ✗ glucose-fructose (term often used in Canada for high fructose corn syrup)
- ✗ golden syrup
- ✗ GOS (galacto-oligosaccharides)
- ✗ high fructose corn syrup
- ✗ honey
- ✗ inulin
- ✗ isomalt
- ✗ lactitol
- ✗ lactose ^{Lactose}
- ✗ maltitol
- ✗ mannitol
- ✗ milk solids ^{Lactose}
- ✗ molasses
- ✗ onion salt or powder
- ✗ sorbitol
- ✗ skim milk powder ^{Lactose}
- ✗ whey powder or whey protein ^{Lactose} (note: '100% whey protein isolate' is low in FODMAPs and allowed on the FODMAP elimination diet)
- ✗ xylitol








^{Lactose} If your dietitian has advised you that you do not need to restrict lactose on the FODMAP elimination diet, you do not need to avoid these ingredients.

Shopping list

It is a good idea to plan a shopping trip before starting the FODMAP elimination diet to purchase many of the foods you will need. In addition to the supermarket, you may find that bulk food stores have a good selection of some low FODMAP food items.

A shopping list of basic staples useful to have on hand for the FODMAP elimination diet is provided below.

Shopping list of staples for the FODMAP elimination diet

- ✓ Low FODMAP vegetables
- ✓ Low FODMAP fruits
- ✓ Potatoes
- ✓ Rice
- ✓ Corn pasta or rice pasta
- ✓ Quinoa
- ✓ Low FODMAP cereals  (see low FODMAP food products section)
- ✓ Low FODMAP breads  (see low FODMAP food products section)
- ✓ Rice cakes and rice crackers/crisps 
- ✓ Milk alternatives (e.g. lactose-free milk, rice or almond milk beverage )
- ✓ Lactose-free yogurt 
- ✓ Low lactose cheeses
- ✓ Fresh/frozen fish, poultry, meat
- ✓ Eggs
- ✓ Peanut butter
- ✓ Seed butters (e.g. sunflower seed butter, pumpkin seed butter)
- ✓ Low FODMAP nuts (e.g. walnuts, pecans, peanuts, pine nuts, macadamia nuts, Brazil nuts)
- ✓ Seeds (e.g. sunflower seeds, pumpkin seeds)
- ✓ Vegetable oil/olive oil
- ✓ Garlic-infused vegetable oil (while garlic is high in FODMAPs, commercial garlic-infused vegetable oil is often low in FODMAPs)
- ✓ Margarine or butter
- ✓ Maple syrup (can be used as a sweetener)
- ✓ Balsamic vinegar and/or lemon juice (for making salad dressings or marinades)
- ✓ Soy sauce (can be used for flavouring dishes) 
- ✓ Low FODMAP herbs and seasonings (see low FODMAP food products section)
- ✓ Low FODMAP snacks and treats  (see low FODMAP food products section)

Low FODMAP food products

The following is a list of some low FODMAP food products to help save you time when shopping. Note that it is still a good idea to double-check the ingredient list of the food products listed as companies may change the ingredients over time.

Low FODMAP bread products	Low FODMAP cereals	Other low FODMAP grain products
Compliments: - Gluten-free Sandwich Rolls White - Gluten-free White Farmhouse Loaf Edible Options: (<i>local bakery across from St. Catharines hospital</i>): - Gluten-free white and multigrain bread* - Gluten-free white and multigrain buns e.g. hamburger, hot dog, dinner rolls* - Gluten-free white baguette* - Gluten-free faux rye bread and ryeless rye bread* - Gluten-free bagels* Glutino: - Gluten-free White Sandwich Loaf - Gluten-free Cinnamon Raisin bread Kinnikinnick: - Gluten-free White Bread - Gluten-free Hamburger and Hotdog buns Udi's: - Gluten-free French Baguettes - Gluten-free Classic French Dinner Rolls - Gluten-free Cinnamon Raisin Bagels - Gluten-free Plain Bagels - Gluten-free Classic Hamburger Buns - Gluten-free Hot Dog Buns - Gluten-free Cinnamon Raisin Bread - Gluten-free Double Chocolate Muffins <i>Foods marked with an * have only a small amount of molasses and/or amaranth flour (should be tolerated by most people)</i>	Bob's Red Mill: - Brown Rice Farina (creamy rice cereal) GoGo Quinoa: - Buckwheat flakes - Quinoa Puffs - Quinoa Flakes - Quinoa Cocoa (puffed cereal) cereal General Mills: - Cheerios (original) - Corn Chex Gluten-free - Rice Chex Gluten-free* Kellogg's: - Corn Flakes* - Crispix* - Rice Krispies - Rice Krispies Brown Rice Gluten-free Cereal Kashi: - Organic Simply Maize (gluten-free)* Nature's Path: - Coconut Chia Superflakes - Crispy Rice Cereal* - Frosted Amazon Flakes - Peanut Butter Panda Puffs - Rice Puffs President's Choice: - Corn Flakes - Crispy Rice Cereal - Instant Regular Oatmeal Organics: - Crunchy Corn Cereal - Steel Cut Oats - Maple and Brown Sugar Flavour Instant Oatmeal President's Choice Blue Menu: - Instant Oatmeal with Flaxseed - 100% Whole Grain Quick Cooking Steel Cut Oats - Regular or Maple & Brown Sugar Flavour Steel Cut Oats Instant Oatmeal Quaker: - Corn Bran Squares	Aurora: - Traditional Plain Polenta Barilla - Gluten-free Pasta (eg. penne, spaghetti, rotini, elbows, fettuccini) Betty Crocker: - Gluten-free Yellow Cake mix - Gluten-free Chocolate Brownie mix - Gluten-free Devil's Food Cake mix - Gluten-free Pizza Crust mix - Gluten-free Sugar Cookie mix Catelli - Gluten-free Pasta (e.g. penne, macaroni, fusilli, spaghetti, linguini, lasagna) De Healthy Baker: - Gluten-free Pizza Crust Duinkerken: - Gluten-free Waffle/pancake Mix - Gluten-free Muffin Mix - Gluten-free Cookie Mix Food for Life: - Brown Rice Tortillas Glutino: - Gluten-free Pizza Crust Grimm's: - Gluten-free Rice Tortillas Le Veneziane: - Gluten-free Corn Pasta Prairie Harvest: - Gluten-free Corn Pasta - Gluten-free Rice Pasta Old El Paso: - Crunchy Shells (taco) Rizopia: - 100% Rice Pasta Sam Mills: - 100% Corn Pasta Tostigar: - Fried Corn Tortilla (tostadas) Udi's: - Gluten-free Pizza Crust

Low FODMAP snacks and treats	Low FODMAP condiments, sauces & seasoning	Low FODMAP beverages
Astro BioBest: - 90% Lactose-free Plain Yogurt Bulk Barn: - Banana Chips Blue Diamond Growers: - Pecan Nut-Thins Chapman's: - Orange Sorbet or Rainbow Sorbet Dorgel: - Lemon Gelato Edible Options: (<i>local bakery across from St. Catharines hospital</i>): - Gluten-free Lemon squares, Shortbread, Chewy Oat cookies, Breakfast Monster Cookies, Chocolate Truffles, Strawberry Truffles, Coconut Bomb, French Cruller, Cinnamon Buns Glee Gum - Peppermint, Tangerine or Bubblegum Glee Gum <i>Sugar-free versions of Glee Gum are high FODMAP</i> FODY: - Trail Mix, Mockingbird/Woodpecker GoGo Quinoa: - Quinoa Crunchies (original or cinnamon) Glutino - Gluten-free Pretzels or Bagel Chips Hot kid: - Rice Crisps logo Probio: - Lactose-free Plain yogurt Oikos - Lactose-free Vanilla Yogurt - Lactose-free Hint of Banana Yogurt Orville Redenbacher's: - Butter or Homestyle Microwave Popcorn Oskri: - Quinoa Bar* Quaker: - Crispy Minis Rice Cakes Real Foods: - Corn Thins (original or sesame) Tic Tacs - Artichoke, Fresh Mint or Wintergreen Tostitos: - Tortilla Chips Waterbridge: - Sesame candy Wow: - Snickerdoodle Cookies (gluten-free) - Lemon Burst Cookies (gluten-free)	Aurora: - Gluten-free Bread Crumbs Compliment's: - Balsamic Vinegar Cross & Blackwell: - Mint Sauce FODY: - Arrabbiata Pasta Sauce - Barbeque Sauce, low FODMAP - Enchilada Sauce - Korean BBQ Sauce and Marinade - Pasta Sauce, Marinara - Pasta Sauce, Tomato and Basil - Salad Dressing, Caesar - Salad Dressing, French - Salad Dressing, Garden - Salad Dressing, Maple - Salsa (mild and medium) - Sesame Ginger Sauce and Marinade - Taco Sauce - Teriyaki Sauce and Marinade - Tomato Ketchup Glutino: - Gluten-free Bread Crumbs Grace: - Coconut Milk - Hot Pepper Sauce Grey Poupon: - Prepared Old Style Mustard Hellman's: - Real Mayonnaise Kikkoman: - Soy Sauce Lee Kum Kee: - Pure Sesame Oil - Chili Oil Marukan: - Rice Vinegar President's Choice: - Roasted Garlic-infused Vegetable Oil Southern Home-Style: - Corn Flake Crumbs RealLemon: - Lemon Juice Renee's: - Tangerine and Lime Vinaigrette Thai Kitchen: - Fish Sauce	Blue Diamond: - Almond Breeze Beverage (Original, Vanilla, Chocolate) Dream: - Rice Dream (Original, Vanilla, Chocolate) - Almond Dream (Original, Vanilla) - Coconut Dream (Original, Vanilla) Earth's Own: - So Nice Organic Almond Beverage (Original, Vanilla) Gatorade Perform: - Thirst Quencher (all flavours) Lactantia: - Lactose-free Milk Natur-a - Rice Beverage (Original, Vanilla) - Almond Beverage (Original, Vanilla, Chocolate, Unsweetened) Natrel - Lactose-free Milk - Lactose-free Coffee Cream - Lactose-free Whipping Cream Silk: - Coconut Beverage (Original, Unsweetened) - Almond Beverage (Original, Unsweetened, Vanilla, Dark Chocolate) So Delicious - Coconut Milk Beverage (Original, Unsweetened or Vanilla)

Why are some 'gluten-free' products listed as low FODMAP products?

Gluten is a protein found in wheat, barley, rye, and in some cases, oats. Gluten *does not* need to be limited on the FODMAP elimination diet. However, many grains that contain gluten, such as wheat and rye, also just happen to be high in FODMAPs. In comparison, many of the gluten-free grains or flours used in gluten-free products happen to be lower in FODMAPs, such as rice, field corn, quinoa, and potato flour. Therefore gluten-free products can sometimes be an option to help choose low FODMAP food choices.

Are all gluten-free products low in FODMAPs?

Not all gluten-free products are lower in FODMAPs. Some gluten-free flours such legume flours (e.g. soy, pea, chickpea flour) can be higher in FODMAPs. Also, gluten-free products can sometimes have high FODMAP ingredients added into the product (e.g. chicory root, inulin, agave syrup, honey). Therefore some gluten-free products can be high FODMAP food choices.

If choosing a gluten-free product, it is therefore a good idea to check the ingredient list to make sure it does not contain high FODMAP ingredients (see: *Quick reference list of high FODMAP ingredients and sweeteners*).

Pinterest Website

A Pinterest website has been created to help you follow the FODMAP elimination diet.

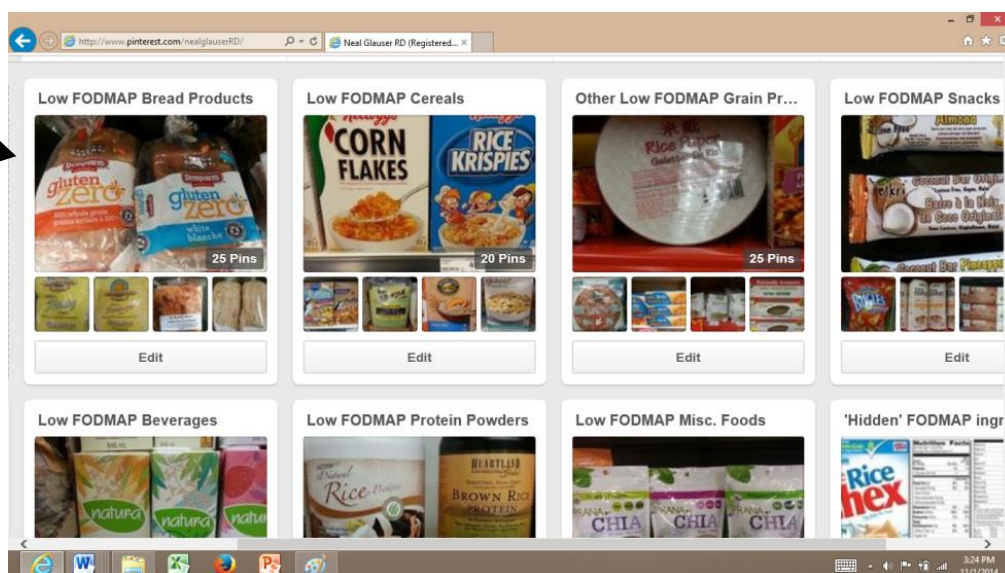


Website address: [pinterest.com/nealglouserRD](https://www.pinterest.com/nealglouserRD/) (enter this address in your internet website address bar to visit this Pinterest website)

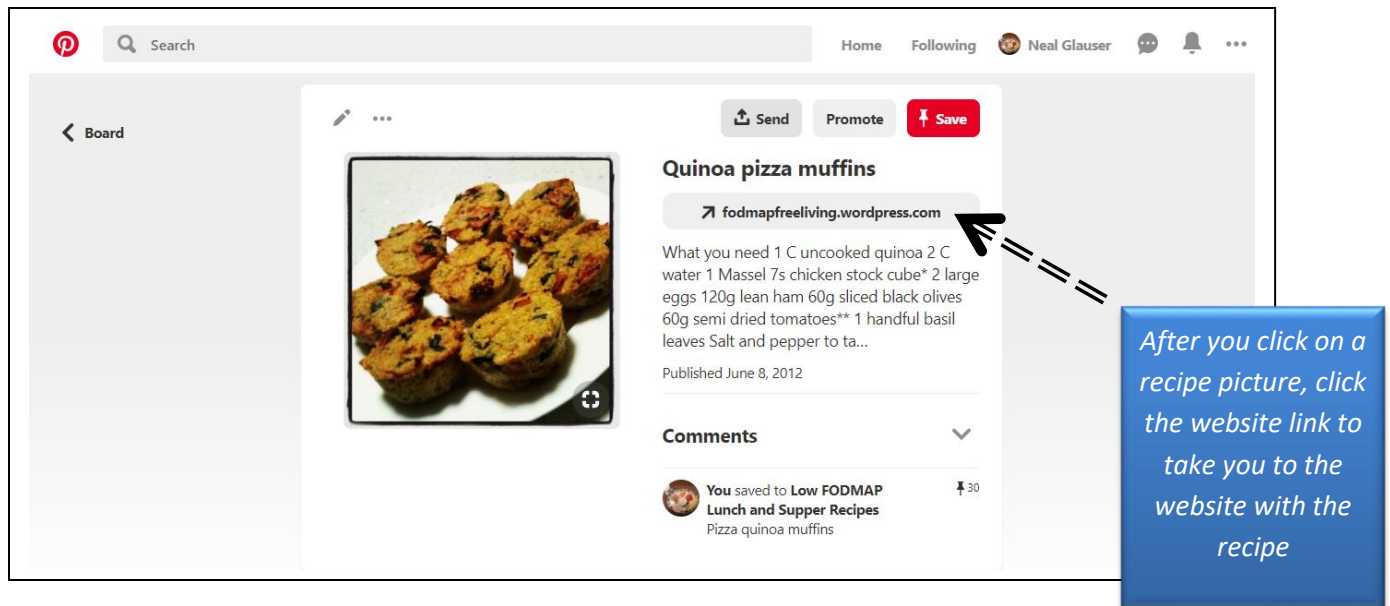
This Pinterest website provides you with:

- ✓ **Tips for low FODMAP shopping.** E.g. low FODMAP food products

Click on a Food Products category for product information



- ✓ **Tips on label reading for FODMAPs.** This Pinterest website helps identify some foods that have 'hidden' FODMAP ingredients.
- ✓ **Online low FODMAP recipe links.** If you are looking for low FODMAP recipes for meals, desserts, snacks and condiments/sauces, this is a good place to get ideas.



Privacy information. Pinterest is a popular online pinboard site. If you are a member of Pinterest, and you choose the optional feature to 'follow' pinterest.com/nealglauserRD, please be advised that other individuals viewing this website may have access to view your username and your Pinterest boards.

Meal Planning

To assist you in planning your meals while on the FODMAP elimination diet, 7 sample daily menus have also been provided using only low FODMAP foods. These are suggested menus only. You can simply choose the items you like and make your own menus if you prefer.

Low FODMAP Menu

Breakfast

Rice Krispies cereal with almond or rice milk topped with banana slices

*1 - 2 hard-boiled eggs
(add margarine, salt and pepper if desired)*

Lunch

*Tuna salad sandwich melt open-face on plain rice cakes or low FODMAP bread
(mix tuna, mayonnaise, chopped green peppers and radishes, salt, pepper; spread on
rice cakes/low FODMAP bread; then melt cheddar cheese on top)*

Lactose-free yogurt

Afternoon snack

½ cup grapes

Rice or almond milk

Supper

*Stir-fry
[1 cup of cooked quinoa (or rice), sliced chicken or turkey, low FODMAP vegetables,
olive oil (use garlic-infused oil if desired), herbs or soy sauce as desired to flavour]*

Evening snack

Small handful of walnuts



❧ Low FODMAP Menu ❧

Breakfast

*Oatmeal with rice or almond milk
(add maple syrup as sweetener if desired)*

½ cup cantaloupe or raspberries

Lunch

*Corn or rice pasta with cooked low FODMAP vegetables and cooked shrimp,
tossed in olive oil, parmesan cheese, and herbs or lemon juice*

Afternoon snack

Small banana with peanut butter (can sprinkle on shredded coconut if desired)

Supper

*Tomato chicken risotto
(recipe at: [pinterest.com/realglauserRD](https://www.pinterest.com/realglauserRD/))*

Rice or almond milk

Evening snack

Rice crackers/crisps with cheddar cheese



❧ Low FODMAP Menu ❧

Breakfast

Corn flakes with rice or almond milk

Orange wedges

Lunch

*Salmon or chicken salad sandwich on low FODMAP bread
(mix salmon or chicken with mayonnaise, red bell peppers, salt, pepper; top with sliced tomatoes and lettuce)*

Lactose-free yogurt

Afternoon snack

½ cup pineapple

Small handful of sunflower seeds

Supper

Baked turkey breast seasoned with herbs served with oven-roasted red and green bell peppers, and zucchini tossed in garlic-infused olive oil and herbs

*Mashed potatoes with margarine
(add chives if desired)*

Rice or almond milk

Evening snack

*Rice cakes with low FODMAP dip
(dip recipes at: pinterest.com/nealglouserRD)*



❧ Low FODMAP Menu ❧

Breakfast

*Egg omelet made with tomatoes, spinach and herbs
(add cheddar cheese if desired)*

Hash brown potatoes

½ cup papaya or grapes

Lunch

*Low FODMAP quinoa and vegetable salad
(recipe at: pinterest.com/nealglauserRD)*

Rice crackers/crisps

Rice or almond milk

Afternoon snack

Small handful of pecans with brie cheese

Supper

*Corn or rice pasta served with pan-fried chicken and low FODMAP vegetables
(season with olive oil and herbs)*

Rice or almond milk

Evening snack

*Plain corn tortilla chips with low FODMAP salsa
(salsa recipes at: pinterest.com/nealglauserRD)*



❧ Low FODMAP Menu ❧

Breakfast

*Rice porridge mixed with blueberries and coconut milk beverage
(add maple syrup as sweetener if desired)*

Lunch

*Low FODMAP potato salad
(recipe at: pinterest.com/nealglauserRD/)*

Carrot and cucumber sticks

Lactose-free yogurt

Afternoon snack

Small banana with peanut butter or sunflower seed butter

Supper

*Baked tilapia or salmon with oven-roasted small potatoes and carrots
(season with olive oil and herbs)*

Rice or almond milk

Evening snack

Rice crackers/crisps with Swiss or cheddar cheese



❧ Low FODMAP Menu ❧

Breakfast

Banana oatmeal shake

(mix in the blender: 1 banana, 1/2 cup cooked oatmeal, 2 tbsp pecans or walnuts, 1/2 cup almond or rice milk beverage, pinch of cinnamon, 2 - 4 ice cubes)

Lunch

Tossed spinach salad with low FODMAP vegetables, shrimp or tuna, and homemade salad dressing

(salad dressing recipes at: [pinterest.com/nealglauserRD](https://www.pinterest.com/nealglauserRD/))

Low FODMAP toast with margarine

Rice or almond milk

Afternoon snack

Blueberries in a bowl topped with coconut milk beverage

Supper

Barbeque chicken kabobs (can marinade with olive oil and lemon juice if desired) with low FODMAP vegetables on a bed of rice

Evening snack

Frozen dairy-free sorbet



❧ Low FODMAP Menu ❧

Breakfast

*Low FODMAP pancakes with maple syrup
(recipes at: 'pinterest.com/nealglouserRD')*

Lunch

Roast beef or sliced meat sandwich on low FODMAP bread with mayonnaise and lettuce

1 - 2 kiwi fruits

Rice or almond milk

Afternoon snack

A small handful of walnuts with cheddar cheese

Supper

Your choice (visit: 'pinterest.com/nealglouserRD' for different supper recipe ideas)

Evening snack

*Peanut butter banana shake
(mix in blender: 1 cup almond or rice milk, 1 banana, 1 tbsp peanut butter, 2 - 4 ice cubes)*



Quick snack ideas for the FODMAP elimination diet

- ✓ *Banana with peanut butter*
- ✓ *Bowl of raspberries or blueberries with rice or almond milk*
- ✓ *Carrot sticks (can dip in peanut butter)*
- ✓ *Corn flakes or Rice Krispies with rice or almond milk*
- ✓ *Dairy-free sorbet*
- ✓ *Fruit (low FODMAP choices)*
- ✓ *Hard-boiled egg*
- ✓ *Lactose-free yogurt (can add in low FODMAP fruit)*
- ✓ *Low lactose cheeses (those listed under 'Low FODMAP')*
- ✓ *Plain banana chips (portion: handful only)*
- ✓ *Plain corn tortilla chips*
- ✓ *Peanut butter spread on rice cakes (can top with sliced banana)*
- ✓ *Rice cakes topped with sliced tomatoes and melted cheddar cheese*
- ✓ *Rice cakes with low FODMAP dip (dip recipes at: pinterest.com/nealglauserRD)*
- ✓ *Rice crackers/crisps and low FODMAP fruit*
- ✓ *Rice crackers/crisps with cheddar cheese slices*
- ✓ *Sesame snaps*
- ✓ *Sliced egg on low FODMAP toast with margarine*
- ✓ *Sliced red or green bell peppers or cucumbers*
- ✓ *Small handful of low FODMAP nuts (e.g. peanuts, pecans, walnuts, pine nuts, macadamia nuts, Brazil nuts)*
- ✓ *Small handful of sunflower seeds*
- ✓ *Smoothie (mix in blender: almond or rice milk with low FODMAP fruit)*

For snack recipe ideas visit: pinterest.com/nealglauserRD

Maintaining your weight on the FODMAP elimination diet

If you are losing weight on the FODMAP elimination diet, and this is not desirable, then you may need to further increase your food or calorie intake to maintain your weight. Some of the low FODMAP foods that are higher in calories that can help you maintain/gain weight include:

- Eggs
- Lactose-free milk
- Lactose-free yogurt
- Low FODMAP foods from the Grain Products category (e.g. rice, corn or rice pasta, quinoa, corn tortilla chips)
- Low FODMAP nuts (e.g. peanuts, pecans, walnuts, pine nuts, macadamia nuts, Brazil nuts)
- Low lactose cheeses (those listed under *Low FODMAP*)
- Maple syrup
- Margarine
- Mayonnaise (low FODMAP, e.g. Hellmann's)
- Peanut butter
- Poultry, fish, meat
- Rice protein powder
- Seed butters (e.g. sunflower seed butter, pumpkin seed butter)
- Seeds (e.g. sunflower seeds, pumpkin seeds)
- Vegetable oils

High calorie/protein low FODMAP shake recipe

You can also try using a high calorie/protein shake made from low FODMAP items. Here is a recipe that you can make in the blender:

- 1 cup of almond or rice milk (can also use lactose-free milk instead)
- 2 tbsp of peanut butter or 1 heaping tbsp of rice protein powder
- 1 tbsp of vegetable oil (e.g. flaxseed, canola)
- 1/2 cup low FODMAP fruit or 1 tbsp of maple syrup
- 2 - 4 ice cubes

Contains approx: 300 - 450 calories, 8 - 11 grams protein

Evaluating your symptom response to the FODMAP elimination diet

Once you have completed the FODMAP elimination diet phase, take some time to review your symptom response using the symptom scoring tool provided at the beginning of this booklet.

If there is noticeable improvement in your IBS symptoms on the FODMAP elimination diet, this suggests that foods containing FODMAPs were contributing to your symptoms. If your symptoms improved, it is recommended that you proceed to *Phase 2: Re-introducing High FODMAP foods into your Diet*, to test your tolerance to these foods.

If you did not notice any improvement in your IBS symptoms on the FODMAP elimination diet, then FODMAPs may not have been contributing to your symptoms. You can likely add these foods back into your diet. Unless high FODMAP foods provoke symptoms when added back, there is usually no need to restrict these foods in your diet. Keep in mind that FODMAPs are not harmful to the digestive system, rather they can simply increase symptoms for some people with IBS due to increased gas production or fluid loading in the bowel. Many high FODMAP foods are healthy food choices, and therefore they are encouraged in the diet if they are well tolerated. An assessment by your dietitian can determine whether there are further dietary strategies to help manage your IBS symptoms.