



The Low FODMAP Diet: Healthy Eating Guidelines

FODMAPs are a type of carbohydrate found in some common foods like wheat, apples, and onions. FODMAP stands for:

- Fermentable
- Oligosaccharides Fructans (FOS) and Galactans (GOS)
- Disaccharides Lactose
- Monosaccharides Fructose
- And
- Polyols Sorbitol and Mannitol

For many people with irritable bowel syndrome (IBS) FODMAPs are poorly absorbed in the bowel causing gas, bloating, or pain. Studies show that many people with IBS who follow the low FODMAP diet with help from a Registered Dietitian can get relief from their symptoms.

The low FODMAP diet has three stages. In the first stage, you remove high FODMAP foods from your diet for three to eight weeks to see if your symptoms improve. In the second stage, you add these same foods back into your diet one at a time to see which foods you tolerate and which ones cause your symptoms. The third stage, and overall goal is to add back into your diet as many foods as you can tolerate in amounts that will not trigger your symptoms.



Steps you can take

Before Starting the Low FODMAP Diet

Talk to a Registered Dietitian who can help you learn about the low FODMAP diet. A Registered Dietitian will also work with you to find a long-term healthy eating plan that will help to improve your IBS symptoms. Ask your doctor for a referral, or visit www.dietitians.ca to find a Registered Dietitian with experience teaching the low FODMAP diet.

Keep a food and symptom journal for at least 3 days before starting the low

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FODMAP diet. Use the journal to compare how you feel before and after you start the low FODMAP diet to see if there are any changes in your symptoms.

Start Following the Low FODMAP Diet

For the next three to eight weeks replace high FODMAP foods with low FODMAP choices. Use Table 1 below to get started.

Remember to read the list of ingredients on food labels to check for high FODMAP ingredients.

Table 1*

Food Category	Avoid High FODMAP foods	Choose Low FODMAP foods		
Vegetables	-artichoke -asparagus -cauliflower -garlic -green peas -leek -mushrooms -onion -sugar snap peas	-aubergine/eggplant -beans (green) -Bok Choy -Broccoli-whole -carrot -cucumber -kale -lettuce -pepper (bell) -potato -tomato -zucchini		
	Avoid High FODMAP foods	Choose Low FODMAP foods		
Fruit	-apples -apple juice -cherries -dried fruit -mango -nectarines -peaches -pears -plums -watermelon	-blueberries (limit ¼ cup) -cantaloupe -grapes -kiwi fruit -mandarin -orange -pineapple -raspberries (limit ⅓ cup) -strawberries		

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Food Category	Avoid High FODMAP foods	Choose Low FODMAP foods	
Protein sources	-cow's milk -custard -evaporated milk -ice cream -sweetened condensed milk -soy beverage (made with soy beans) -yogurt -most legumes or pulses -some marinated meats, poultry, seafood and fish -some porcessed meats	-almond milk -brie and camembert cheese -feta cheese -hard cheeses -lactose-free milk and yogurt -soy beverage (made with soy protein) -eggs -firm tofu -plain meats, poultry, seafood and fish -tempeh	
	Avoid High FODMAP foods	Choose Low FODMAP foods	
Grain products	 -wheat, rye, barley based breads breakfast cereals biscuits (cookies and crackers) snack products 	-corn or quinoa flake -oats -quinoa or corn pasta -rice, rice noodles all varieties -rice cakes (plain) -sour dough spelt bread -wheat, rye or barley free breads	
	Avoid High FODMAP foods	Choose Low FODMAP foods	
Sugars, sweeteners and confectionary	-high fructose corn syrup -honey -sugar free confectionary	-dark chocolate -maple syrup -rice malt syrup -table sugar	
Food Category	Avoid High FODMAP foods	Choose Low FODMAP foods	

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Nuts and seeds	-cashews -pistachios	-almonds (limit to 10) -macadamia nuts -peanuts -pumpkin seeds -sunflower seeds -walnuts
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^{*} List of foods used with permission from Monash University. Refer to the Monash University FODMAP App for detailed lists and servings size suggestions.

Tips for following the low FODMAP diet:

- When eliminating high FODMAP foods during the first three to eight weeks of the diet, it is important to replace them with healthy low FODMAP options.
- Follow <u>Canada's Food Guide</u>, and eat a variety of healthy foods to get all the nutrients your body needs.
- Add flavour without adding high FODMAP foods. Use:
 - Spices or herbs like basil, chili, cilantro, cinnamon, cumin, five spice, ginger, pepper, rosemary, tarragon, or thyme on meat, fish, chicken, or vegetables.
 - Soy sauce.
 - Use maple syrup or table sugar (brown, white, raw) instead of honey to sweeten baked goods or hot cereal.
 - Avoid flavouring foods with high FODMAP ingredients such as onion or garlic powder or spice mixtures.
- Avoid fruit drinks made with high fructose corn syrup. Drink water, regular or decaffeinated coffee or black or herbal tea instead.
- Fats and oils are not a source of FODMAPs. Use healthier choices to prepare and flavour foods:
 - soft margarine
 - mayonnaise

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- oils such as avocado, canola, corn, olive, peanut, sesame, sunflower, vegetable.
- Read the food label on products, especially on prepared and pre-made foods.
- Avoid high FODMAP ingredients and products with the following ingredients in Table 2.

Table 2*

Ingredients to avoid:	Commonly Found In:
Sugar alcohols (Polylols) - maltitol - mannitol - sorbitol - xylitol - other sugar alcohols ending in `-ol'.	Sugar free: - foods like gum, candy or mints - medications or cough drops - sports drinks, vitamin waters
Glucose-fructose (high fructose corn syrup).	 candy condiments like barbeque sauce or ketchup processed snack foods soft drinks sweetened beverages.
Fructo-oligosaccharies(fos) Inulin or chicory root	meal replacement drinksprobiotic supplementssnack bars and cereals.

^{*}Main Sources: Canadian Nutrient File 2015; Barrett JS, Gibson PR. Fermentable oligosaccharides, disaccharides, monosaccharides and polyols (FODMAPs) and nonallergic food intolerance: FODMAPs or food chemicals? Therap Adv Gastroenterol. 2012 Jul;5(4):261–8; and FDA High Fructose Corn Syrup Questions and Answers. 2018 Jan.

Low FODMAP meal and snack ideas to help get you started:

Breakfast:

- corn or quinoa cereal with lactose-free milk and strawberry slices
- hot oatmeal with almond beverage and grapes

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Sour dough spelt toast with peanut butter.

Lunch:

- wrap made with corn tortilla, tuna or egg salad, lettuce, and tomato
- green salad with olive oil lemon juice dressing and canned salmon
- eggs scrambled with spinach and cheddar cheese.

Dinner:

- chicken or beef stew with carrots, beans and potatoes
- tofu stir-fry with Bok Choy with rice
- steamed fish with rice and green beans.

Snacks:

- fresh fruit such as an orange, grapes, or pineapple
- handful of plain nuts such as peanuts or walnuts
- popcorn
- smoothie made with lactose-free yogurt and strawberries.

Adding high FODMAP Foods Back into Your Diet

It is important to start adding high FODMAP foods back into your diet after three to eight weeks of avoiding them. This will help you to learn which foods and amounts of those foods you can tolerate. Following a low FODMAP diet long-term can reduce the healthy bacteria in your gut and the diet may be low in some of the nutrients your body needs.

If your symptoms do not improve after six to eight weeks of following the low FODMAP diet, return to your usual diet. Talk to your doctor or dietitian about other ways to manage your IBS symptoms.

As you start to reintroduce high FODMAP foods it is also important to continue to keep track of your food and symptoms in a journal so you can determine which high FODMAP foods cause you symptoms and which ones you can safely add back into your diet.

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In stage two start by adding high FODMAP foods back into your diet one at a time. Talk to your Registered Dietitian or follow the guidelines below.

- Foods are added back into the diet based on the type or sub group of FODMAP carbohydrate they contain; Fermentable Oligosaccharides, Disaccharides, Monosaccharides And Polyols. See Table 3 below for examples of foods in each group.
- Introduce one food back into your diet at a time.
- Pick one food from the first group you wish to try. It should be a food that you enjoy or eat often. Use the chart below to help guide you.
- Eat one serving of that food on three different days of the week. The serving size should be an amount that you would normally eat. For example, one clove of garlic, 250 mL (1 cup) of milk, or 1 slice of bread.
- Continue following the low FODMAP diet while you re-introduce a high FODMAP food.

If you do not get symptoms:

- Include a two-three day washout period, when you experience no symptoms, before moving onto a new food.
- Repeat the steps above with another food from the same FODMAP group you are introducing.
- Continue to enjoy the foods you are tolerating from this group and monitor how much you can eat without causing symptoms.
- Once you have tested a few foods in one FODMAP group, move on to another FODMAP group and repeat the steps above.

If you get symptoms, stop eating the food and wait until your symptoms go away, then:

- Retry a half serving of the food. For example, ½ clove of garlic or 125 mL (½ cup) of milk.
- Or try another food from the same FODMAP group. Sometimes you may be able to tolerate one food from the FODMAP group but not another.
- If you cannot tolerate the food, try again in the future. Your body may tolerate more FODMAPs over time.

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 You may need to avoid foods from this FODMAP group or eat small servings of these foods to avoid symptoms.

If you have difficulty trying to figure out what foods are causing your symptoms work with a dietitian who has experience with the low FODMAP diet.

Below are examples of foods that you might want to try. You can also refer to the Avoid column above in table 1. See Additional Resources for a longer list of foods and which FODMAP group they belong to.

Table 3*

FODMAP group	Foods
Fermentable Oligosaccharides -Fructans (FOS) -Galactans (GOS)	grains: barley, rye, wheat and products made from these grains like bread, cereals, crackers and snack foods legumes: black beans, red kidney beans, chickpeas, lentils, soy beans nuts: cashews, pistachios vegetables: artichokes, asparagus, garlic, green peas, leeks, onions, snow peas
Disaccharides (Lactose)	ice cream, kefir, milk (cow, goat, sheep), cottage and ricotta cheese, pudding, sour cream, yogurt
Monosaccharides (Fructose)	fruit: apples, apple and grape juice, apple sauce, cherries, raisins, mango, pears, peaches, watermelon sweeteners: glucose-fructose and high fructose corn syrup commonly found in desserts, snack foods, and soft drinks, lemonade and energy drinks, honey vegetables: canned tomoto products, sweet red peppers, sweet corn, asparagus, beans and sugar snap peas

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Polyols (Sorbitol) (Mannitol) and others	fruit: apples, apple juice, avocado, stone fruits (apricot, cherries, nectarines, peaches, pears, plums), prunes, watermelon	
	sweeteners like: sorbitol, mannitol, xylitol, maltitol, and others ending in -ol (check the label - commonly found in candy, gums, sugar-free foods, and medications)	
	vegetables: avocado, cauliflower, mushrooms, snow peas	

*Main Sources: Canadian Nutrient File 2015; Gibson PR, Shepherd SJ. Evidence-based dietary management of functional gastrointestinal symptoms: The FODMAP approach. JGHF. 2010;25(2):252-8; and Fedewal A, Rao SC. Dietary fructose intolerance, fructan intolerance and FODMAPs. Curr Gastroenterol Rep. 2014;16(1):370.

Special Considerations

You may not get all the nutrients you need when following a low FODMAP diet. If you are not eating a well balanced diet, with foods from all the food groups from <u>Canada's Food Guide</u>, or you have trouble adding high FODMAP foods back into your diet, speak to a Registered Dietitian.

Getting enough fibre on the low FODMAP diet may be a challenge. Make sure you are eating low FODMAP vegetables, fruit, and whole grains every day. These foods are rich in fibre.

Is it necessary to follow a gluten-free diet?

Gluten is not a FODMAP so you do not have to follow a gluten-free diet unless you have celiac disease. However, many gluten-free foods are also low in FODMAPs and can be included during the first three to eight weeks of the low FODMAP diet. Check the label to make sure they do not have high FODMAP ingredients added.



Additional Resources

Healthy Eating Guidelines for Irritable Bowel Syndrome <a href="http://www.pennutrition.com/viewhandout.aspx?Portal=UbY=&id=JMfsXwl=&PreviewHandout=bA=="http://www.pennutrition.com/viewhandout.aspx?Portal=UbY=&id=JMfsXwl=&PreviewHandout=bA=="http://www.pennutrition.com/viewhandout.aspx?Portal=UbY=&id=JMfsXwl=&PreviewHandout=bA==

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- Food and Symptom Journal http://www.pennutrition.com/
 viewhandout.aspx?Portal=UbY=&id=J8frWQ0=&PreviewHandout=bA==
- Low FODMAP App https://www.monashfodmap.com/ibs-central/i-have-ibs/get-the-app/
- FAQs Low FODMAP Diet Questions https://www.monashfodmap.com/about-fodmap-and-ibs/frequently-asked-questions/

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