



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, Disaccharides, Monosaccharides And Polyols. 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 two stages. In the first stage, you remove high FODMAP foods from your diet for six 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 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 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 dietitian with experience teaching the low FODMAP diet.

Keep a food and symptom journal for at least 3 days before starting the low 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 six to eight weeks replace high FODMAP foods with low FODMAP choices. Use Table 1 below to get started. For a longer list of foods refer to Additional Resources.

If a serving size is listed for a food (e.g. 15 mL/1 Tbsp), do not eat more than this amount at a meal or snack. These foods contain a small amount of FODMAPs and can cause symptoms if you eat too much of them at one time.

Table 1

Vegetables		
Choose	Limit	Avoid
-alfalfa -bamboo shoots -bean sprouts -Bok Choy -cabbage, common -cabbage, red -carrot -celeriac -chicory leaves -chili pepper- red/green -chives -Choy sum -collard greens -cucumber -eggplant -endive -fennel -fennel leaves -ginger -green beans -green onion leaves -kale -lettuce -okra	-artichoke hearts, canned 30 mL (2 Tbsp) -beet 2 slices -broccoli 125 mL (½ cup) -Brussels sprouts 2 sprouts -butternut squash 60 mL (¼ cup) -cabbage, savoy 125 mL (½ cup) -celery ¼ stalk -corn ½ cob -pumpkin, canned 60 mL (¼ cup) -snow peas 5 pods -sun-dried tomato 2 pieces -sweet potato 125 mL (½ cup)	-asparagus -cauliflower -garlic -green peas -leek -mushrooms -onions -shallots -sugar snap peas

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-olives, black/green -parsnip -peppers -potato -radish -seaweed -spaghetti squash -spinach -Swiss chard -tomato, fresh/canned -turnip -water chestnuts -yam -zucchini		
Fruit		
Choose	Limit	Avoid
-banana -blueberry -cantaloupe -clementine -dragon fruit -grapes -honeydew melon -kiwi -lemon -lime -mandarin -orange, navel -passion fruit -pineapple -plantain -raspberry -rhubarb -star fruit -strawberry	-avocado 1/8 whole -coconut, dried/shredded 60 mL (¼ cup) -cranberries, dried 15 mL (1 Tbsp) -currants 15 mL (1 Tbsp) -raisins 15 mL (1 Tbsp) -pomegranate seeds 60 mL (¼ cup)	-apple -apricot -blackberry -cherries -dates -figs -goji berries, dried -grapefruit -lychee -mango -nectarine -peach -pear -persimmon -pineapple, dried -plum -prunes -watermelon





Cereals		
Choose	Limit	Avoid
-gluten-free corn flakes -rice flakes -quinoa flakes	-amaranth, puffed cereal 60 mL (¼ cup) -corn flakes 125 mL (½ cup) -granola made with honey 60 mL (¼ cup) -oats, dry 60 mL (¼ cup) -rice, puffed/popped 125 mL (½ cup)	-barley flakes -granola, fruit/nut -rice crisps cereal -muesli -spelt flakes -wheat biscuit -wheat bran
Breads		
Choose	Limit	Avoid
-corn tortillas -gluten-free bread -millet bread -sourdough bread; spelt, white, whole wheat	-gluten-free multigrain bread 1 slice -multigrain sprouted bread 1 slice -oat sourdough bread 1 slice -white bread 1 slice	-multigrain bread -naan or roti -oatmeal bread -pumpernickel bread -raisin bread -rye bread -rye sourdough bread -whole wheat bread
Grains and pastas		
Choose	Limit	Avoid
-cornmeal -gluten-free pasta -millet -oat bran -quinoa (all types) -rice; basmati, brown, white -rice bran -rice stick noodles	-pasta, wheat 125 mL (½ cup)	-barley, pearl -buckwheat kernels -couscous -wheat bran

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Flours		
Choose	Limit	Avoid
-buckwheat flour -corn flour -millet flour -potato starch -quinoa flour -rice flour -sorghum flour -tapioca starch -teff flour	-almond meal 60 mL (¼ cup)	-amaranth flour -barley flour -kamut flour -rye flour -spelt flour -wheat flour
Snacks, biscuits, and cookies		
Choose	Limit	Avoid
-corn chips -potato chips -rice cakes, plain	-biscuit (sweet, wheat-based, plain) 2 biscuits -cracker (savory, wheat-based) 2 crackers -pretzels 125 mL (½ cup) -saltines 5 crackers -shortbread 1 cookie	-cereal bars (wheat- based) -chocolate chip cookies -fruit filled biscuits -granola bars (oat and honey) -muesli bar (with fruit)
Milk and alternatives		
Choose	Limit	Avoid
-lactose-free milk -lactose-free yogurt -soft and hard cheeses; brie, - camembert, cheddar, Colby, cottage, feta, goat, Havarti, mozzarella, pecorino, Swiss -soy beverage (made with soy protein)	-ricotta cheese 30 mL (2 Tbsp)	-buttermilk -cream, full fat -cream cheese -ice cream -kefir -milk; cow, goat, evaporated -sour cream -soy beverage (made with soy beans) -yogurt

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-whipped cream		
Meat, fish, and eggs		
Choose	Limit	Avoid
-eggs -fish; salmon, sardines, tuna -meat; beef, lamb, pork -poultry; chicken, turkey -seafood; prawns		
Legumes (dried beans, peas, lentils), tofu, and nuts		
Choose	Limit	Avoid
-lentils (canned) -nuts; brazil, chestnuts, macadamia, peanuts, pecan, pine nuts, walnuts -peanut butter -seeds; chia, poppy, pumpkin, sesame, sunflower -tempeh, plain -tofu	-butter beans 60 mL (¼ cup) -chickpeas 60 mL (¼ cup) -green and red lentils 60 mL (¼ cup) -lima beans 60 mL (¼ cup) -mung beans 60 mL (¼ cup) -nuts; almonds and hazelnuts 10 nuts	-beans; baked, black, borlotti, broad, kidney, soy -falafel -nuts; cashews, pistachio -lentil burger -split peas
Fats and oils		
Choose	Limit	Avoid
-butter -margarine -mayonnaise -oil; avocado, canola, coconut, olive, peanut, sesame, sunflower,		

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vegetable		
Sweets and sweeteners		
Choose	Limit	Avoid
-dark chocolate -jam; strawberry -marmalade -maple syrup -stevia -sugar; brown, raw, white	-milk and white chocolate (15 g)	-fruit bar -honey -jam sweetened with glucose-fructose -sweetened condensed milk
Beverages		
Choose	Limit	Avoid
-alcohol; beer, gin, vodka, whiskey, red wine, white wine -almond beverage -coconut milk, canned -coffee -hemp beverage -juice; cranberry, tomato -tea; black, green, peppermint, white	-orange juice blend 125 mL (½ cup)	-dessert wine, rum -coconut water -juice; apple, reconstituted orange juice, tropical juice blend -oat beverage -rice beverage -tea; chai, chamomile, dandelion, fennel, oolong
Condiments		
Choose	Limit	Avoid
-capers -chutney -fish sauce -herbs and spices -miso paste -mustard	-balsamic vinegar 15 mL (1 Tbsp) -pesto 7½ mL (½ tbsp) -tahini 15 mL (1 Tbsp)	-hummus -ketchup -tomato sauce with garlic and onions -onion and garlic powder

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-rice wine vinegar -soy sauce -sweet and sour sauce -tomato sauce without garlic or onions -wasabi -Worcestershire sauce
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Tips for following the low FODMAP diet:

- When eliminating high FODMAP foods during the first six to eight weeks of the diet, it is important to replace them with healthy low FODMAP options.
- Include foods from all four food groups, using Canada's Food Guide www.healthcanada.gc.ca/foodguide, 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.
 - Use maple syrup or sugar instead of honey to sweeten baked goods or hot cereal.
 - Sprinkle chives or the green part of a green onion on a casserole or stew to get the onion flavour.
 - Sauté chopped fennel in oil instead of onion as a base for soups or sauces.
 - Make your own garlic infused oil. When prepared this way there will be no FODMAPs left in the oil:
 - Peel garlic cloves and cut into large pieces.
 - n Heat oil and sauté garlic for 1-2 minutes.
 - Discard the garlic pieces and use the infused oil for cooking.
- Read all ingredient lists. Avoid products with the following





ingredients:

Table 2

Ingredients to avoid:	Commonly Found In:
Sugar alcohols - maltitol - mannitol - sorbitol - xylitol - other sugar alcohols ending in '-ol'.	- sugar-free foods like gum, candy or mints - medications or cough drops.
Glucose-fructose (high fructose corn syrup).	 candy condiments like barbeque sauce or ketchup snack foods soft drinks sweetened beverages.
Fructo-oligosaccharies(fos) Inulin or chicory root	- probiotics - meal replacement drinks - snack bars and cereals.
Other high FODMAP ingredients like: - apple puree - chickpea, pea, or soy flour - pear juice - onion or garlic powder.	 gluten-free foods gluten-free flour mixes salad dressings, soups, or stock snack foods prepared rice or pasta mixes.

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 blueberries
- I gluten-free toast with peanut butter and sliced bananas.

Lunch:

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

Dinner:

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

Snacks:

- resh 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 raspberries.

Adding high FODMAP Foods Back into Your Diet

It is important to start adding high FODMAP foods back into your diet after six 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.





Start by adding high FODMAP foods back into your diet one at a time. Talk to your dietitian or follow the guidelines below.

- Foods are added back into the diet based on the type of FODMAP they contain. There are four different groups of FODMAP carbohydrates. 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 more often. Use the chart below to help guide you.
- Eat one serving of that food on two 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:

- Repeat the steps above with another food from the same FODMAP group you are introducing. Do not introduce more than one new food per week.
- 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, $\frac{1}{2}$ clove of garlic or 125 mL ($\frac{1}{2}$ 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.
- 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	grains: barley, couscous, rye bread, whole wheat bread
and galactans)	fruit: dates, figs (dried), goji berries (dried), grapefruit, nectarines, plums, watermelon, white peaches
	legumes: black beans, hummus, kidney beans, soy beans.
	nuts: cashews, pistachios
	vegetables: beets, garlic, green peas, leeks, onions, shallots, snow peas.
Disaccharides (Lactose)	buttermilk, cream cheese, ice cream, kefir, milk, sour cream, yogurt.
Monosaccharides (Fructose)	fruit: apples, apple juice, cherries, figs (fresh), mango, orange juice, pears, watermelon
	Sweeteners: glucose-fructose (high fructose corn syrup commonly found in desserts, snack foods, and soft drinks),

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	honey
	vegetables: asparagus, sugar snap peas.
Polyols	fruit: apples, apple juice, apricot, avocado, blackberries, cherries, nectarines, peaches, pears, plums, watermelon, white peaches, lychees
	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: cauliflower, mushrooms.

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 four food groups, 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 six to eight weeks of the low FODMAP diet. Check the label to make sure they do not have high FODMAP ingredients added.



Additional Resources

Low FODMAP Diet Resources http://www.pennutrition.com/viewhandout.aspx?

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This information is not meant to replace advice from your medical doctor or individual counseling with a registered dietitian. It is intended for educational and informational purposes only.





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- Frequently Asked Low FODMAP Diet Questions: http://www.med.monash.edu/cecs/gastro/fodmap/low-fodmap.html
- Healthy Eating Guidelines for Irritable Bowel Syndrome http://www.pennutrition.com/viewhandout.aspx? Portal=UbY=&id=JMfsXwI=&PreviewHandout=bA==
- Food and Symptom Journal http://www.pennutrition.com/viewhandout.aspx?
 Portal=UbY=&id=J8frWQ0=&PreviewHandout=bA==
- Low FODMAP App http://www.med.monash.edu/cecs/gastro/fodmap/

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