



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 peppers (red and green) chives Choy sum collard greens cucumber eggplant endive fennel fennel leaves ginger green and red chili peppers green beans green onion (green part only)	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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kale lettuce okra olives (black and green) parsnip peppers potato radish seaweed spaghetti squash spinach Swiss chard tomato (fresh and canned) turnip water chestnuts yam zucchini		
Fruit		
Choose	Limit	Avoid

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

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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 or popped) 125 mL (½ cup)	barley flakes granola (fruit and nut) rice crisps cereal muesli spelt flakes wheat biscuit wheat bran
Breads		
Choose	Limit	Avoid
corn tortillas gluten-free bread millet bread spelt sourdough bread white sourdough bread whole wheat sourdough bread	gluten-free multigrain bread 1 slice multigrain sprouted bread 1 slice sourdough oat 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 (black, red, white) rice (basmati, brown, white) rice bran rice stick noodles	pasta (wheat, cooked) 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 (1/4 cup)	amaranth flour barley flour kamut flour rye flour spelt flour wheat flour
Snacks, biscuits, and cod	okies	
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) whipped cream	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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Meat, fish, and eggs		
Choose	Limit	Avoid
eggs fish (salmon, sardines, tuna) meat (beef, lamb, pork) poultry (chicken) seafood (prawns)		
Legumes (dried beans,	peas, lentils), tofu, and n	uts
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 (plain)	butter beans 60 mL (¼ cup) chickpeas 60 mL (¼ cup) green and red lentils, boiled 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, vegetable)		

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Sweets and sweeteners		
Choose	Limit	Avoid
dark chocolate jam (marmalade, strawberry) maple syrup stevia sugar (brown, raw, white)	milk and white chocolate (one fun size bar)	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 (decaffeinated and regular) hemp beverage juice (cranberry, tomato) tea (black, green, peppermint, white)	orange juice blend (reconstituted and fresh) 125 mL (½ cup)	alcohol (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 oyster sauce	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 Tzatziki

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rice wine vinegar
soy sauce
sweet and sour sauce
tomato sauce without
garlic or onions
wasabi
Worcestershire sauce

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:
 - n Peel garlic cloves and cut into large pieces.
 - n Heat oil and sauté garlic for 1-2 minutes.
 - n 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
- gluten-free toast with peanut butter and sliced bananas.

Lunch:

- wrap made with gluten-free tortilla, tuna or egg salad, lettuce, and tomato
- I 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
- ı 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 and galactans)	grains: barley, couscous, rye bread, whole wheat bread 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), 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?
 Portal=UbY=&id=J8HvUQM=&PreviewHandout=bA==;
- Healthy Eating Guidelines for Irritable Bowel Syndrome http://www.pennutrition.com/viewhandout.aspx?
 Portal=UbY=&id=JMfsXwl=&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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