



FODMAP Reintroduction

Congratulations! You've successfully completed the elimination phase of the SIBO Specific Diet. You are now ready to begin challenging the foods you've worked so hard to eliminate. Please read the following instructions to learn how to begin food challenge and reintroduction.

For reintroduction, **one** new food from only **one** carbohydrate category will be challenged for a period of 3 days. The serving size of the challenged food will increase each day. After the challenge, you will return to a full FODMAP restriction (following the green column only) for 3-4 days. This "washout period" between food challenges can help ensure symptoms are not a result of overlap between food categories. This period will also give your body a rest. Again, only one food from each category should be chosen, as people will often respond similarly to foods in the same category. For example, both mushrooms and cauliflower are in the mannitol category, so if you respond poorly to mushroom, you will probably have a similar reaction to cauliflower and other mannitol-containing foods, like celery.

Dose dependent reactions may occur, so start with a small portion on day one and increase the portion size over the next 2 days. Fructans such as onions and garlic, may cause a buildup and cause severe symptoms if introduced consecutively. To avoid this, when introducing fructans, introduce them every other day over the course of a week, instead of daily for 3 days.

If you don't experience symptoms on the first day, that is good. Increase the amount you are testing until you've completed 3 days of challenging. After the challenge, wait and observe for symptoms for 3-4 days, then move onto the next FODMAP group. If no reaction, **do not** keep the tested food in your diet for the remainder of the reintroduction period (even if it did not cause you symptoms). This simply minimizes potential complications and "stacking" of FODMAPs during the process.

If you develop symptoms (i.e. diarrhea, gas, bloating, abdominal pain, etc) to a certain group, wait until you are symptom free for at least 3 days, then either reduce the serving size by half and re-challenge OR try another food from within the same FODMAP group to confirm the results of the first challenge. Alternatively, you may assume that FODMAP is a trigger for you and move onto challenge the next FODMAP group, after waiting for symptoms to resolve. You can always come back to that food and challenge it at a later time.

To summarize, you will challenge a FODMAP food group for 3 days and then wait for 3-4 days (washout period) to see if you develop a reaction. During the washout period, adhere to low FODMAP diet (green column). This will be repeated until all food groups have been tested. A challenge of each food group takes about a week. If introducing all 10 FODMAP groups, the re-introduction will take about 10 weeks total, assuming no symptom development. If you develop symptoms, continue a low FODMAP diet until you are symptom free. Then either re-challenge that same food in a smaller amount, challenge a different food in that food group, OR challenge a different food group.

Once all food groups have been successfully reintroduced, you can now consume normal serving sizes. New 3-day food challenges could be implemented with new foods, without needing to repeat periodic full FODMAP restrictions, since all FODMAP categories have been trialed.

See the next page for further reintroduction instructions.

Tips for FODMAP Challenge

- Test only one FODMAP subgroup at a time. Do not challenge multiple carbohydrate subgroups.
- If a food contains two different FODMAP components, this should not be reintroduced until later. For example, pears contain high amounts of both fructose and polyols, so if they elicit symptoms you will not know if fructose or a polyol is an offending factor. Foods like apples and pears are not good choices for the first round of food challenges, as it will be too difficult to discern which category of foods is responsible for symptoms.
- Track your diet and symptoms in a journal during the challenge phase to help define your reactions to food.
- Test the food you are challenging as part of a meal, as it may be tolerated better with other food rather than by itself. This can be done as long as there are no other FODMAPs in the meal.
- Note that portion sizes are listed as raw food measurements, but you can serve them cooked. To do this, eat only the cooked raw amount. For example, if you want to challenge mannitol, start with ¼ cup raw portobello mushroom. If cooked, the mushrooms will reduce in volume, but only eat the cook amount that began as ¼ cup raw.
- Start with a small serving size, then increase over the next two days. Typically, the serving size on day two is double of day 1's serving size. The serving size of day 3 is typically triple the serving size of day 1. However, this varies. Recommended portion sizes are listed on the next page.
- There is no need to over-eat the challenge food, keep the portion in line with what you would normally eat. If you would never eat that large of a portion (i.e. 1 Tbsp of honey), then stick with the same portion you tested on day 1.
- If one food in a subgroup causes symptoms, it is possible that another food in that subgroup will as well. For example, if leeks cause symptoms, garlic and onions probably will too because they contain similar amounts of fructans.
- If you experience minor, but not painful symptoms (i.e. you feel a gas bubble), note this symptom in your journal. However, this symptom should not be considered as a failed FODMAP challenge. See below for symptoms of a failed challenge.
- When introducing fructans, introduce food every other day over the course of a week. For example, introduce on Monday, Wednesday, and Friday, and eat from the green column on Tuesday, Thursday, and Saturday. Then proceed with 3-day washout period.
- If you pass a food challenge, congrats! However, do not add that food or other foods in that subgroup until all challenges are complete. All challenge must be done while you remain on the low FODMAP diet, as FODMAPs are additive.

What are symptoms of a failed challenge?

A failed FODMAP challenge consists of uncomfortable symptoms such as diarrhea, cramping, bloating, constipation, or a return of symptoms that you experienced prior to the elimination phase.

If when challenging these high FODMAP foods you experience undesirable symptoms, please let the Peak Nutritionist know immediately. In addition, stop the challenge and resume a low FODMAP (green column) diet until your symptoms subside and you have been symptom free for 3 days.

FODMAP Group Challenge Schedule

*Do not introduce a group if you know you have a sensitivity to that food OR you are avoiding that food. For example, grains and dairy. Unless otherwise stated, **only choose one of the foods** in each food group to challenge. Do not choose multiple foods unless it is otherwise stated.*

Group 1: Fructose - choose one

- ½ Tbsp honey increasing to 2 Tbsp honey **-or-**
- ¼ of a medium-sized mango increasing to a whole medium-sized mango **-or-**
- 7 raw sugar snap peas increasing to 25 sugar snap peas

Group 2: Sorbitol (Polyols) - choose one

- ¼ of an avocado increasing to a whole avocado **-or-**
- 5 blackberries increasing to 10-15 blackberries **-or-**
- ½ medium yellow peach increasing to 1 medium yellow peach

Group 3: Mannitol (Polyols) - choose one

- ¼ cup raw cauliflower increasing to 1 cup of cauliflower **-or-**
- ½ cup sliced button mushrooms increasing to 1 ½ cup sliced button mushrooms **-or-**
- ½ cup raw sweet potato increasing to 1 cup raw sweet potato

Group 4: Lactose (Disaccharides) - choose one

- ¼ cup plain yogurt increasing to 1 cup plain yogurt **-or-**
- ¼ cup cow's milk increasing to 1 cup cow's milk
 - Note if you know you are sensitive to dairy, first challenge lactose-free milk to isolate the protein, A1 casein. If not sensitive to lactose-free milk, then challenge normal milk.

Groups 5 and 6: Fructan Vegetables (Oligosaccharides) -*both foods must be challenged*

- ½ clove of raw garlic increasing to 1 ½ clove of garlic, alternate every other day **-and-**
- 1 tablespoon raw onion increasing to 3 tablespoons of onion, alternate every other day

Groups 7 and 8: Fructan Cereal or Grain (Oligosaccharides) -*test two foods from this group*

- ¼ cup cooked buckwheat kernels increasing to ¾ cup cooked buckwheat kernels **-and-**
- ¼ cup puffed rice cereal (Rise Krispies cereal) increasing to 1 cup puffed rice cereal **-or-**
- *Wheat bread may be challenged on a case by case basis- see challenge schedule*

Group 9: Fructan Fruit (Oligosaccharides) – choose one

- ½ cup grapefruit increasing to 1 medium-sized grapefruit **-or-**
- 1 dried date increasing to 4 dried dates **-or-**
- 1/3 cup pomegranate seeds increasing to ½ cup pomegranate seeds

Group 10: Galactans (Oligosaccharides) – choose one

- ½ cup cooked kidney or black beans increasing to 1 ½ cup cooked kidney or black beans **-or-**
- 15 almonds increasing to 25 almonds

Note: Foods do not have to be consumed raw, they may be cooked. If a raw serving size is stated, cook the raw equivalent and consume for the challenge.

Use the Monash University App for a comprehensive list of FODMAP content. Please see the next page for a simple breakdown of the introduction structure.

General FODMAP Challenge Outline

Reintroduction Outline	
Day 1	Small FODMAP Serving No symptoms: Proceed to the next day. If this serving gives you symptoms, do not proceed. Wait until symptoms clear and try a different food/smaller serving size OR begin a new FODMAP group after 3-day washout period, as this food may be a trigger.
Day 2	Medium FODMAP Serving No symptoms: Proceed to the next day. If this serving gives you symptoms, do not proceed. Wait until symptoms clear and try a different food/smaller serving size OR begin a new FODMAP group after 3-day washout period, as this food may be a trigger, or you may only tolerate small to medium portions of this group.
Day 3	Full FODMAP serving No symptoms: You have successfully reintroduced this group. If this serving gives you symptoms, wait until symptoms clear and try reintroduction again OR move on to a new FODMAP group. If still symptomatic after 2 nd challenge, you may only tolerate small to medium portions of this group or this food is a trigger.
Day 4	Washout Day Take the day off to let your body recover, do not include any reintroduced FODMAP group, even if the challenge was successful.
Day 5	Washout Day Take the day off to let your body recover, do not include any reintroduced FODMAP group, even if the challenge was successful.
Day 6	Washout Day Take the day off to let your body recover, do not include any reintroduced FODMAP group, even if the challenge was successful.
Day 7	Washout Day or Start New Challenge If you have been symptom free for at least 3 days, you can begin a new FODMAP group to challenge.

FODMAP Subgroup Challenge Template

Fructose Challenge		
Day 1	Day 2	Day 3
¼ mango or ½ Tbsp honey	½ mango or 1 Tbsp honey	1 mango or 2 Tbsp honey
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.
Sorbitol Challenge		
Day 1	Day 2	Day 3
¼ avocado or 5 blackberries	½ avocado or 10 blackberries	1 avocado or 15 blackberries
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.
Mannitol Challenge		
Day 1	Day 2	Day 3
¼ cup cauliflower or ½ cup sliced button mushrooms	1/2 cup cauliflower or 1 cup sliced button mushrooms	1 cup cauliflower or 1 ½ cup sliced button mushrooms
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.
Lactose Challenge		
Day 1	Day 2	Day 3
¼ cup milk or ¼ cup yogurt	½ cup milk or ½ cup yogurt	1 cup milk or 1 cup yogurt
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.
Fructan Vegetable #1 Challenge *Consume every other day*		
Day 1	Day 3	Day 5
½ clove raw garlic	1 clove raw garlic	1 ½ clove raw garlic
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.
Fructan Vegetable #2 Challenge *Consume every other day*		
Day 1	Day 3	Day 5
1 Tbsp chopped raw onion	2 Tbsp chopped raw onion	3 Tbsp chopped raw onion
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.

Fructan Cereal Grain #1 Challenge		
Day 1	Day 2	Day 3
¼ cup cooked buckwheat	½ cup cooked buckwheat	¾ cup cooked buckwheat
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.
Fructan Cereal Grain #2 Challenge		
Day 1	Day 2	Day 3
¼ cup puffed rice	½ cup puffed rice	¾ cup puffed rice
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.
Fructan Fruit Challenge		
Day 1	Day 1	Day 1
1 dried date or ½ cup grapefruit	2 dried dates or ¾ cup grapefruit	4 dried dates or 1 medium sized grapefruit
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.
Galactan Challenge		
Day 1	Day 2	Day 3
½ cup black or kidney beans or 15 almonds	1 cup black or kidney beans or 20 almonds	1 ½ cup black or kidney or 25 almonds
Use food and symptom log to document reactions.	Use food and symptom log to document reactions.	Use food and symptom log to document reactions.
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.	If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.

Optional Challenges

Wheat Challenge

Wheat Challenge #1: Sourdough Bread *Isolates gluten*		
Day 1	Day 2	Day 3
1 slice of sourdough bread	2 slices of sourdough bread	2-3 slices of sourdough bread
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge. Wait 2-3 days before introducing the next challenge.		
Wheat Challenge #2: Wheat Bread		
Day 1	Day 2	Day 3
1 slice of wheat bread	2 slices of wheat bread	2-3 slices of wheat bread
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge. Wait 2-3 days before introducing the next challenge.		

*This challenge is not for everyone. Ask if you should challenge wheat.

Milk Challenge

Milk Challenge #1: Casein		
Day 1	Day 2	Day 3
¼ cup lactose free milk	½ cup lactose free milk	1 cup lactose free milk
If your symptoms are triggered after reintroducing lactose free milk. Try A2 milk, instead of normal milk, during the next challenge. This could mean that you are sensitive to the A1 protein. For the A2 milk challenge, follow the same instructions below, however use A2 milk instead of normal milk.		
If you tolerate the lactose free milk, this means that you tolerate the A1 protein. Next, you'll need challenge normal milk (below) to test your tolerance to lactose. Wait 2-3 days before introducing the next challenge.		
Milk Challenge #2: Lactose		
Day 1	Day 2	Day 3
¼ cup milk	½ cup milk	1 cup milk
If your symptoms are triggered after reintroducing normal milk- this means that you have a lactose intolerance and should avoid milk and other dairy that includes lactose.		
If you tolerate normal milk, can now incorporate milk and other dairy products in your diet.		

*Perform this challenge if dairy has been an issue for you in the past. This challenge will differentiate a sensitivity to lactase vs casein.

After Individual Challenges

After challenging individual FODMAP groups, you can now expand your diet and challenge even more foods. The purpose of this is to determine if you can tolerate multiple FODMAPs together. Remember, the overall goal is to get back to a normal, healthful diet. First, challenge foods that contain multiple fermentable carbohydrate groups. See below for an example of what foods to challenge. If you tolerate those foods- great! Then begin to add FODMAP foods together, such as pasta sauce with garlic and onion and pasta of your choice. Again, see below for more examples.

Next challenge foods that contain multiple FODMAP groups:

- Fructose and Sorbitol: apple, pear
- Fructans and Sorbitol: plum, prunes, apricots
- Fructans/GOS and Mannitol: snow peas
- GOS and Mannitol: butternut squash
- Fructans and Fructose: raisin toast, Jerusalem artichoke, watermelon, asparagus

Combined Sorbitol and Excess Fructose Challenge

Apple Challenge		
Day 1	Day 2	Day 3
½ medium apple	1 medium apple	1 ½ medium apple
Use food and symptom log to document reactions.		
If your symptoms are triggered after reintroducing the FODMAP, stop the challenge.		

*This challenge is to be performed after ALL FODMAP subgroups are tested.

Once you have challenged the above successfully, challenge two high FODMAP foods at a time to test tolerance:

- Apple with cashews
- Wheat or chickpea/lentil pasta with marinara sauce (with onions and garlic)
- Broccoli with garlic and onions
- Mushrooms with garlic

3) Based on results of these challenges, establish your modified FODMAP diet. Avoid any foods that you react to.

Tips for Maintenance:

- Limit your intake of high FODMAP foods prior to social events or eating out to better tolerate foods in those settings.
- As time goes on, be open to slight modifications in the diet as tolerance may change.
- Try to be calm. Fear associated with eating or reintroducing foods as that fear translates into anxiety, stress, and increase in digestive symptoms.
- Understand that some mild digestive symptoms are “normal” and may not require strategic dietary change. This includes mild bloating or gas after eating a big meal.
- If you ever develop symptoms of gas and bloating again, go back to the green column and eat from that column only until your symptoms subside.