

THE LOW FODMAP DIET

Introduction

Are you experiencing:

- diarrhea or constipation
- bloating and excess gas (burping and/or flatulence)
- tummy pain
- reflux
- nausea
- irritable bowel syndrome (IBS)
- recurrent urinary tract infections (UTIs) or vaginal yeast infections
- sinusitis
- or brain fog?

Then the low FODMAP diet may be very useful for reducing these symptoms.

WHAT ARE FODMAPS?

"FODMAP" are a group of short-chain carbohydrates and sugar alcohols that are found in the diet. FODMAP stands for Fermentable Oligosaccharides, Disaccharides, Monosaccharides And Polyols, a group of short-chain carbohydrates and sugar alcohols (polyols). These nutrients are found throughout your diet.

The key FODMAPs are:

- Oligosaccharides: fructans/fructo-oligosaccharides (found in grains and vegetables) and galactans/galacto-oligosaccharides (found in legumes)
- Disaccharides: lactose (found in milk)
- Monosaccharides: fructose (found in fruit)
- Polyols: sorbitol (found in sweetened products)

The low FODMAP diet was created by the Monash University to treat irritable bowel syndrome. On a low FODMAP diet you eat foods that are low in FODMAPs, and avoid high FODMAP foods. It is not meant to be a long-term diet, but is very good at reducing symptoms while you work on your gut health.

COULD A FODMAP DIET BE HELPFUL FOR YOU?

To determine if whether the low FODMAP diet may help reduce your symptoms, strictly eat a low FODMAP diet for 4 weeks and observe your symptoms (Foods to avoid and foods to eat on a low FODMAP diet can be found in Table's 1 and 2). If significant reduction in symptoms have been experienced following the elimination of all FODMAPs, the next step is to complete a systematic rechallenge of each FODMAP to help determine the types of FODMAPs that you do and don't tolerate (see Page 4).

It is not generally recommended that you follow a low FODMAP diet for life; restricting dietary intake of a wide array of foods should generally be avoided if possible to reduce the risk of nutrient deficiencies. FODMAPs are a normal part of the diet and have benefits for health, such as providing fibre and prebiotics for gastrointestinal health.

After trialing a low FODMAP diet, if you find it beneficial, we suggest that you implement a gut healing protocol to help restore the bacterial balance in the digestive system. Once this has been actioned, in time you should be able to reintroduce many of the high FODMAP foods.

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Table 1: Foods to avoid on a low FODMAP diet

FODMAP	FOODS TO AVOID
Fructose	<ul style="list-style-type: none"> • Fruits: apples, boysenberries, cherries (>3), figs, pears, nashi pears, peaches, mango, watermelon, tamarillo, tinned fruit, dried fruit, large serves of fruit • Vegetables: asparagus, artichokes, sugar snap peas • Sweeteners: honey, fructose (>5g daily), high fructose corn syrup • Drinks: fruit juice, soft drinks sweetened with fructose, sparkling wine, dessert wine, ciders, rum
Fructans	<ul style="list-style-type: none"> • Fruits: custard apples, nectarines, peaches, persimmon, rambutan, tamarillo, watermelon • Vegetables: artichokes, asparagus (>3), beetroot (>4 slices), Brussel sprouts (>1/2 cup), broccoli (>1/2 cup), cabbage - savoy (>1 cup), chicory root, corn (>1/2 cob), fennel (>1/2 cup), garlic, leeks, okra, onions, peas (>1/3 cup), radicchio lettuce, snow peas (>10), spring onion (white part) • Cereals: wheat, rye, barley products (bread, pasta, couscous, crackers, biscuits) • Nuts: cashews, pistachios
Galactans	<ul style="list-style-type: none"> • Legumes: all (chickpeas, lentils, dried/canned beans, baked beans, soy beans) • Drinks: soy milk
Lactose	<ul style="list-style-type: none"> • Milk: cow, goat and sheep • Cheese: fresh (cottage, ricotta, cream cheese, mascarpone) • Other dairy products: yoghurt, ice cream, custard
Polyols	<ul style="list-style-type: none"> • Fruits: apples, apricots, avocado (>1/4), blackberries, cherries (>3), longan (>10), lychees (>5), nashi pears, nectarines, pears, peaches, plums, prunes, watermelon • Vegetables: cauliflower, celery (>1 stick), mushrooms, snow peas, sweet potato (>1/2cup) • Sweeteners: sorbitol (420), mannitol (421), xylitol (967), maltitol (965), isomalt (953)

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Table 2. Suggested alternative foods that can be consumed on a low FODMAP diet.

FOOD GROUP	FOODS TO ENJOY
Fruit	Banana, blueberries, grapefruit, grapes, honeydew melon, kiwifruit, lemons, limes, mandarins, oranges, passionfruit, pawpaw, pineapple, raspberries, rock melon, tomatoes
Vegetables	Alfalfa, bamboo shoots, bean sprouts, bok choy, carrot, cabbage (common), capsicum, choko, choy sum, eggplant, green beans, lettuce, chives, parsnip, potato, pumpkin, radish, silver beet, spring onion (green only), squash, zucchini
Cereals	Gluten-free products, spelt, corn, oats, polenta, quinoa, rice (note: gluten is not a FODMAP but commonly occurs with fructans)
Nuts	(<1 handful daily) macadamias, peanuts, pecans, pine nuts, pumpkin seeds, sesame seeds, sunflower seeds, walnuts
Dairy	Milk & cheeses: lactose-free cows' milk, rice milk, most cheeses (e.g., brie, camembert, cheddar, feta) Other dairy products: butter, yoghurt (lactose-free), dairy free gelati, sorbet
Sweeteners	Sweeteners Sugar (sucrose), glucose, maple syrup, golden syrup, stevia, sucralose
Meats	Beef, lamb, kangaroo, poultry, eggs, tofu, tempeh

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Challenge Test & Reintroduction

The low FODMAP diet can be helpful for reducing digestive symptoms, brain fog and anxiety. This diet however should not be something that you stay on long-term.

If after 4 weeks on the elimination low FODMAP diet your symptoms have significantly improved, you should follow the challenge test (details below). If however after 4 weeks strictly following this diet your symptoms do not improve then you may like to go back onto a gluten free, and dairy free diet.

The challenge test, encompasses a 5 week period in which you systematically reintroduce each FODMAP to determine the level of individual FODMAP consumption that you can comfortably tolerate.

A five week program for the reintroduction phase is outlined in Table 3 below. Each week, one specific FODMAP category is trialled, with a serving consumed on three separate days (usually monday, wednesday and friday). Symptoms are monitored for 48 hours after each dose to determine if there is a possible reaction to that FODMAP category. Symptoms should be monitored using the diet and symptom diary (see page 4). If you believe there is no reaction over the following 48 hours you can continue with the next dose of that FODMAP. If you experience a worsening of symptoms following the reintroduction of a specific FODMAP, then it is recommended to discontinue trialing that FODMAP and wait until symptoms resolve. Once the symptoms have resolved you can move onto the next type of FODMAP to trial.

If during the challenge test you discover you tolerate a specific FODMAP category DO NOT add it back into your diet yet. Avoid all FODMAP categories throughout the 5 weeks challenge test, EXCEPT the one you are testing. Small doses of individual FODMAPs may have an additive effect which then makes the challenge test difficult to interpret if FODMAP categories are reintroduced prematurely.

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Table 3. The challenge phase of the low FODMAP diet

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1. Mannitol and sorbitol (polyols)	½ cup of mushrooms, 4 dried apricots and monitor symptoms	Monitor symptoms	½ cup of mushrooms, 4 dried apricots and monitor symptoms	Monitor symptoms	½ cup of mushrooms, 4 dried apricots and monitor symptoms	Monitor symptoms	Monitor symptoms
Week 2. Lactose (disaccharide)	250mL of milk or 200g of yogurt and monitor symptoms	Monitor symptoms	250mL of milk or 200g of yogurt and monitor symptoms	Monitor symptoms	250mL of milk or 200g of yogurt and monitor symptoms	Monitor symptoms	Monitor symptoms
Week 3. Fructose (mono saccharide)	2 tsp of honey and monitor symptoms	Monitor symptoms	2 tsp of honey and monitor symptoms	Monitor symptoms	2 tsp of honey and monitor symptoms	Monitor symptoms	Monitor symptoms
Week 4. Fructans (oligo saccharide)	2 slices of wholemeal wheat bread and monitor symptoms	Monitor symptoms	2 slices of wholemeal wheat bread and monitor symptoms	Monitor symptoms	2 slices of wholemeal wheat bread and monitor symptoms	Monitor symptoms	Monitor symptoms
Week 5. Galactans (oligo saccharide)	½ cup of lentils or legumes and monitor symptoms	Monitor symptoms	½ cup of lentils or legumes and monitor symptoms	Monitor symptoms	½ cup of lentils or legumes and monitor symptoms	Monitor symptoms	Monitor symptoms

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Challenge Test & Reintroduction Cont.

CREATING YOUR INDIVIDUALISED LOW FODMAP DIET

After the five week trial, it is recommended to integrate foods from all the FODMAP groups which were well tolerated into your normal diet, to determine your tolerance of the combination of FODMAPs. Symptoms should continue to be monitored closely during the reintroduction. If there is a return of symptoms then it is recommended to eliminate those FODMAP groups again until symptoms resolve. The combination of FODMAPs should then be reintroduced at a lower dose.

For the FODMAP types which aggravated symptoms, it is recommended you continue to avoid, or significantly restrict, foods containing these FODMAPs in your diet. To improve your tolerance of FODMAP containing foods over time, work on healing the gut lining, supplement stomach acid if required and lower stress levels as much as possible. Remember to review the 5 keys to healing the gut (rule out, remove, replace, reinoculate, repair & rebalance) in module 4.

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Table 4: Diet & Symptom Diary

Please circle any symptoms that apply for that day, and rate symptoms - (1) mild or occasionally, (2) moderate or frequently, (3) severe or constantly

	Food & Drink	Challenge Food+ Quantity	Digestive	Head	Respiratory	Skin	Mood/Brain	General
Challenge period:	Breakfast		Bloating Burping Reflux	Itchy throat Sore throat Tight throat	Sinus/nasal Congestion Sneezing	Eczema Dermatitis Hives	Depression Anxiety Sadness	Muscle pain Muscle cramps Muscle weakness
	Snack:		Flatulence Cramping Constipation	Itchy, burning, red Or watery eyes	Itchy nose Runny nose	Rash Itchy skin	Imitability Aggression	Joint stiffness Joint swelling
	Lunch:		Diarrhoea Nausea	Blurred vision Light sensitivity	Mucus Difficult breathing	Pimples/acne Dry skin	Can't think straight Tearful	Fatigue Palpitations
	Snack:		Vomiting Changes	Blocked or aching ears	Tight chest	Flushing Pallor	Withdrawn Dazed	Frequent urination
	Dinner:		In appetite Excessive thirst	Ringing in the ears Noise sensitivity	Wheezing Asthma attack	Sweating	Silly Talkative	Ear tugging Restlessness
	Snack:		Itchy anus	Mouth ulcers Bad taste in mouth Headache Migraine Facial or mouth Swelling	Coughing Yawning		Panicky Apprehensive Dizzy/light headed Sleepy	Hyperactivity Unusually quiet Tonguing roof of mouth Bedwetting Foetal position
Date:	Unusual events, medications taken, exercise		Description/ other	Description/ other	Description/ other	Description/ other	Description/ other	Description/ other
Challenge period:	Breakfast		Bloating Burping Reflux	Itchy throat Sore throat Tight throat	Sinus/nasal Congestion Sneezing	Eczema Dermatitis Hives	Depression Anxiety Sadness	Muscle pain Muscle cramps Muscle weakness
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Date:	Unusual events, medications taken, exercise		Description/ other	Description/ other	Description/ other	Description/ other	Description/ other	Description/ other