

FODMAP Reintroduction Diet

Patient Information Leaflet



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FODMAP Reintroduction

This diet sheet is suitable for people who have been following the Low-FODMAP diet for a set period of time. If you have found that your gut symptoms have improved since starting the low FODMAP diet, it is likely that you are sensitive to one or more of the **FODMAPs** (**F**ermentable **O**ligo-saccharides, **D**i-saccharides, **M**ono-saccharides And **P**olyols).

The Low FODMAP diet is not designed to be a permanent diet as it is restrictive and excludes many beneficial foods. It is now important to begin to reintroduce foods that you have been avoiding. During this phase, each type of FODMAP will be introduced individually, using gradually increasing amounts, to help you identify which foods you are sensitive to, and which you are not.

Types of FODMAPs

- Fructose - Mono-saccharide fruit sugar, poorly absorbed in some people.
- Fructans - Oligo-saccharide (chains) of fructose found in wheat, some fruit and vegetables and added to some foods. Poorly absorbed in all people.
- Galacto - Oligosaccharides – oligo-saccharide, found in pulses.
- Polyols - Sorbitol and mannitol found in fresh foods, poorly absorbed in many people.
- Lactose - Di-saccharide found in milk, poorly absorbed in some people.

How to challenge

Only ever challenge if you have been free of symptoms for three days.
Continue on a strict low FODMAP diet, only introducing one challenge food at a time.

Day one: Eat the quantity of challenge food suggested

Day two: Double the amount of challenge food from day one

Day three: Triple the amount of challenge food from day one

Keep a record of any symptoms that develop over the reintroduction days. If at any point you experience symptoms, stop the challenge and wait until you have been symptom-free for three days before trying the next challenge.

At the end of the three days, return to a FODMAP-free diet for three days before beginning the next reintroduction.

The order of challenges does not matter. It is helpful to keep a diary recording symptom response to challenges.

Some foods, particularly fruits, may contain more than one FODMAP. It is therefore best to reintroduce these foods after the specific challenges suggested.

If you are reintroducing a food not listed in this booklet, try 40 grams on day one, 80 grams on day 2 and 120 g on day 3.

How long will it take to complete the reintroduction phase?

The reintroduction stage can take up to 6 - 8 weeks as many of the FODMAP groups have many food challenges within the one group.

Lactose

Lactose is the sugar found in mammalian milk, and is a double sugar unit formed of glucose and galactose. Some people are not able to digest lactose, however most people are able to tolerate small amounts within the diet.

Lactose Challenge:

Day	Food	Symptoms
1	125 ml cow's milk	
2	250 ml cow's milk	
3	375 ml cow's milk	

If you don't experience symptoms, all foods containing lactose should be well tolerated. This will include:

- Milk (cow/goat/sheep, skimmed/semi-skimmed/whole)
- Yoghurt
- Ice cream and custard
- Soft cheeses (cottage cheese, spreadable cheeses)

Galacto-oligosaccharides (GOS)

GOS are chains of the sugar galactose, and are mainly found in beans and pulses.

GOS are poorly absorbed in all people, and restriction of foods containing GOS is often helpful in improving symptoms in people with IBS.

Galacto-oligosaccharide Challenge:

Day	Food	Symptoms
1	2 tbsps. (40 g) chick peas / butter beans	
2	4 tbsps. (80 g) chick peas / butter beans	
3	6 tbsps. (120 g) chick peas / butter beans	

If you don't experience symptoms during this reintroduction, it is likely that you will tolerate other foods high in GOS. This will include:

- Beans (baked beans, broad beans, kidney beans butter beans)
- Pulses (chickpeas, lentils)
- Peas (peas, split peas, black eyed peas)
- Nuts (cashew or pistachio)

Polyols

Polyols are sugar alcohols (including sorbitol, xylitol, isomalt and maltitol) found in some fruits, and are commonly added as sweeteners in sugar-free gum and sugar-free mints. Sorbitol and mannitol are the two polyols commonly found in fresh foods.

Sorbitol Challenge:

Day	Food	Symptoms
1	50 g broccoli or ¼ avocado	
2	75 g broccoli or ½ avocado	
3	100 g broccoli or ¾ avocado	

If you do not experience symptoms after challenging with sorbitol, you should tolerate other foods high in sorbitol such as apples and pears, stoned fruits (peaches, plums, apricots etc), avocado, blackberries, broccoli, lychee, dried fruits and foods containing the food additive E420.

Mannitol Challenge:

Day	Food	Symptoms
1	20 g mushrooms or 70 g sweet potato	
2	40 g mushrooms or 100 g sweet potato	
3	60 g mushrooms or 140 g sweet potato	

If you do not experience symptoms after challenging with mannitol, you should tolerate other foods high in mannitol such as watermelon, cauliflower, celery and butternut squash, and foods containing the food additive E421.

Fructans

Fructans are chains of the sugar fructose, and are mostly found in wheat products, some vegetables (e.g. onions, garlic, artichoke), and some processed foods (e.g. oligofructose, inulin or FOS).

Fructans are poorly absorbed in all people as we do not have the ability to break them down in the small intestine. In people with IBS, restriction of foods containing fructans is often helpful in improving symptoms. Several challenges are recommended as different fructan sources may cause symptoms, therefore only introduce one of each of the following at a time.

Onion

Day	Food	Symptoms
1	1 tablespoon raw or cooked onion	
2	2 tablespoons raw or cooked onion	
3	3 tablespoons raw or cooked onion	

Garlic

Day	Food	Symptoms
1	¼ clove raw or cooked garlic	
2	½ clove raw or cooked garlic	
3	¾ clove raw or cooked garlic	

Wheat

Day	Food	Symptoms
1	5 tbsp cooked pasta or 1 slice bread	
2	10 tbsp cooked pasta or 2 slice bread	
3	15 tbsp cooked pasta or 3 slice bread	

Foods high in fructans include artichokes, okra, beetroot, chicory, Brussels sprouts, cabbage and those listed above.

Fructose

Fructose is a single unit sugar (monosaccharide) found in many foods, particularly fruit and honey. Fructose is only poorly absorbed in some people.

Fructose Challenge:

Day	Food	Symptoms
1	1 teaspoon honey or agave syrup	
2	2 teaspoons honey or agave syrup	
3	3 teaspoons honey or agave syrup	

If you reintroduce fructose and do not experience symptoms, you are likely to tolerate other foods high in fructose. These include sugar snap peas, fresh figs, mangoes and fresh fruit juice, and any foods with fructose as an added ingredient.

Once you have completed all the challenges and understand which FODMAPs trigger symptoms and at what doses, it is advisable to aim to return to as normal a diet as possible, whilst keeping your intake of foods containing your trigger FODMAPs to a minimum.

Acknowledgements

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Who can I contact for more support?

Aintree University Hospital Dietitians:

Telephone 0151 529 3473 (Monday to Friday 8am – 4pm)

Further information

Smartphone App:

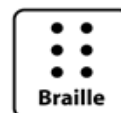
Food Maestro FODMAP (annual cost £3.99)

Twitter Accounts:

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