

IBS and the Low FODMAP diet

Irritable bowel syndrome (IBS):

In IBS the gut can be 'hypersensitive' leading to different symptoms including:

- abdominal pain/discomfort
- bloating
- wind
- urgency to open bowels
- a feeling of being unable to pass all stool (incomplete evacuation);
- diarrhoea or constipation (or variable bowel habit swinging between these);
- nausea
- stomach gurgling
- belching, heartburn and reflux
- tiredness / lethargy

These symptoms can vary and may be present every day to a degree, or come and go. Stress, anxiety or a hectic lifestyle can play a role, which can lead to a flare up or worsening symptoms. IBS can be difficult to manage, but dietary and lifestyle changes can be very helpful in improving symptoms and therefore your quality of life.

IBS type symptoms may also be present in those with other gastro-intestinal diseases like inflammatory bowel disease, coeliac disease or even bowel cancers. This diet may also be of help to those, but it is important to discuss this with your doctor or dietitian before starting.

Diet and IBS

Many dietary components are thought to be triggers for IBS symptoms, e.g. caffeine, alcohol, spicy or fatty foods. How you eat is also very important, erratic eating patterns and eating very quickly can sometimes make symptoms worse. Dietary triggers can often be difficult to spot, especially when you have a flare of IBS symptoms.

The low FODMAP diet:

Certain carbohydrates have been shown to worsen IBS type symptoms in some people. These carbohydrates are called **FODMAPs**, which stands for Fermentable, Oligo-saccharides, Di-saccharides, Mono-saccharides And Polyols. Foods containing FODMAPs do not get fully digested or absorbed in the gut, so pass to our large intestine where our gut microbiome ferment them. This happens in everyone, but for many people with a sensitive bowel this can cause symptoms.

People with IBS-like symptoms appear to be sensitive to the gases produced and water changes in the large intestine that occur when the diet contains lots of FODMAPs. Reducing the intake of FODMAP's has been shown to improve gut symptoms in most individuals with IBS-like symptoms.

FODMAP's are found in a wide range of foods; including certain grains (such as wheat, rye and barley), certain vegetables, pulses, fruits, sweetening agents and certain dairy foods such as milk or yogurt.

The low FODMAP diet only requires foods with high concentrations of fermentable carbohydrate to be avoided or limited. It does not exclude any one whole food group, but certain foods from a number of groups. It is therefore possible to have an entirely balanced diet whilst following the FODMAP exclusion, but it is very important to eat as many of the foods you are allowed to as possible.

Following the low FODMAP diet:

How strict do I need to be?

Try to follow the low FODMAP diet as closely as possible to give you the best chance to improve your symptoms. Usually 4-6 weeks is long enough to identify if symptoms will respond to a low FODMAP diet.

After the initial 4-6 weeks it is important that you reintroduce the avoided foods to identify which particular groups cause you symptoms. Sensitivity to FODMAPs varies between people, and you may find you tolerate some high FODMAP foods well. Finding out which foods you are not sensitive to helps to increase food choices in your diet.

The tables below provide an overview of the foods that should be avoided and those that can be eaten whilst following a low FODMAP diet. It is not an exhaustive list. Further details on other foods and safe quantities can be found on the Monash University FODMAP app:

<https://www.monashfodmap.com/ibs-central/i-have-ibs/starting-the-low-fodmap-diet/>

The foods listed below do not contain any FODMAPs and may be eaten freely:

Meat, poultry, fish, eggs or vegetarian protein foods.

Eat 2 portions per day. One portion is approx. 100g or 2 eggs.

- Fresh and frozen meats without sauce or coating: beef, chicken, duck, lamb, pork (including bacon and ham), turkey.
- Fresh or frozen shellfish, white fish, oily fish.
- Tinned fish in brine or oil.
- Eggs (boiled, fried, poached, scrambled).
- Firm tofu, tempeh.
- Quorn (*Check ingredients: some varieties contain onion and/or garlic*)
- Textured vegetable protein (soya mince)

Fats, oils & spreads

For a healthy diet try eating less foods containing fat. Fats are high in calories so use sparingly, and can contribute to IBS symptoms in some people. Choose polyunsaturated or monounsaturated where possible.

- Cooking oils, margarines, low fat spreads, butter, ghee, lard, suet.

Starchy Foods

*Minor wheat ingredients in a food **do not** need to be avoided (e.g. thickeners and flavourings).*

<p><u>Foods to avoid</u></p> <p>(high in fructans, GOS or polyols):</p>	<p><u>Suitable foods</u></p> <p><i>But check ingredients label for problem fruit, FOS, inulin, oligofructose.</i></p>
<p>Cereal Grains</p> <ul style="list-style-type: none"> - Wheat (including spelt, bulghur wheat, couscous, semolina) - Rye, - Barley - Amaranth 	<p>Cereal grains and starchy foods</p> <ul style="list-style-type: none"> - Rice (and rice bran), - oats (and oat bran), - tapioca, - potatoes (white) - buckwheat, - polenta, corn, - quinoa
<p>Bread</p> <p>All wheat bread and rolls:</p> <ul style="list-style-type: none"> • white, wholemeal, multigrain , • Pitta bread, bagels, ciabatta, focaccia, Panini, naan bread, chapatti • Croissants, muffins, brioche, pastries crumpets and most bakery goods • Garlic bread, pizza bases • Rye bread,rye sourdough. • Spelt bread. 	<p>Bread</p> <ul style="list-style-type: none"> • Wheat free / Gluten free bread and rolls • Bread made from: oat, rice, corn, tapioca, potato flours • 100% spelt sourdough is low FODMAP • <i>Wheat free or gluten free</i> pizza bases, pitta bread, ciabatta, naan bread. • <i>Homemade wheat free bread using a bread maker is a good option</i>
<p>Flour</p> <ul style="list-style-type: none"> • <u>All wheat flour</u> • white, wholemeal, plain, strong, self-raising • Rye, barley, gram (Chick Pea) flours • coconut flour, spelt flour, soya flour 	<p>Flour and raising agents</p> <ul style="list-style-type: none"> • Wheat free / gluten free flour • buckwheat, tapioca flour • cornflour, maize flour, polenta, • potato, millet flour, rice flour. • Baking powder, bicarbonate of soda, cream of tartar, yeast. arrowroot,
<p>Pasta and noodles</p> <ul style="list-style-type: none"> • All fresh and dried pasta (white and wholemeal), • Gnocchi, spelt pasta, • chick pea /lentil pasta • Egg noodles, Hokkein, Udon, Pot noodles, Supernoodles, Ramen 	<p>Pasta and noodles</p> <ul style="list-style-type: none"> • Wheat free / gluten free pasta (<i>not made from lentils/chickpeas</i>), buckwheat, quinoa pasta • Rice noodles, buckwheat noodles, kelp noodles
<p>Breakfast cereals</p> <ul style="list-style-type: none"> • Wheat or bran based cereals (weetabix, shredded wheat, bran flakes, All-bran, cheerio's, muesli), • wheat bran, wheat germ, • spelt flakes 	<p>Breakfast Cereals</p> <ul style="list-style-type: none"> • Porridge / oat cereals (oatibix, oat flakes), oat bran • cornflakes, rice krispies, • some wheat free or gluten free muesli and cereals (<i>check fruit</i>).

<u>Foods to avoid</u> (high in fructans, GOS or polyols):	<u>Suitable foods</u> <i>But check ingredients label for problem fruit, FOS, inulin, oligofructose.</i>
Savoury Biscuits Water biscuits, crisp breads, Cornish wafers, cream crackers, spelt crackers Rye crispbreads	Savoury Biscuits / snacks Rice crackers, corncakes, oatcakes, wheat free or gluten free crackers. Plain / salted popcorn or plain crisps
Sweet Biscuits All biscuits made with wheat flour (digestives, shortbread, rich tea, custard creams etc)	Sweet biscuits Some Florentines, macaroons, oat based biscuits, flapjacks. Most 'free from' biscuit varieties
Cakes All cakes made with wheat flour (fruit cake, fairy cake, Victoria sponge, chocolate cake etc)	Cakes Flourless cakes, meringues, cornflour sponge. Most 'free from' varieties are wheat free.
Pastry All pastry made with wheat flour (shortcrust, puff, flaky, filo,) Shop brought pastry and pastry goods (pies, quiche, pasties)	Pastry Wheat free or gluten free varieties and mixes.
Breadcrumbs and batter Crumbed fish and poultry, fish fingers, fish in batter, tempura batter, scotch eggs.	Breadcrumbs Polenta, oats, cornflake crumbs, gluten free breadcrumbs/ batter

Fruit and Vegetables

<u>Foods to avoid</u>	<u>Suitable</u>
<p>Fruit (Fresh, dried or juice)</p> <p>Apple, Apricot, Blackberry, Cherries, Dates, Figs, Mango, Nectarine, Peach, Pear, Plum/prune, Sultanas, Watermelon,</p> <p>Tinned fruit in apple or pear juice.</p> <p>Tropical fruit juice, or juices from fruits above</p> <p>Jams, sauces or chutneys containing fruits above.</p>	<p>Fruit</p> <p><i>Aim for 2-3 portions spread through the day. One portion at a time= 80g fresh fruit, 1tbs dried fruit or 100ml fruit juice. Portion sizes in brackets are for fruits which must be more strictly limited*.</i></p> <p>Banana, Blueberry*(20) , Cantaloupe , Clementine, Cranberries, Galia melon, Grapes* (6), Grapefruit* (<half, small), Honeydew melon, Kiwi, Lemon, Lime , Lychee* (<5) Mandarin, Orange, Passion fruit, Papaya, Pineapple, Pomegranate*(half small) Raspberry, Raisins Rhubarb, Strawberry*(5)</p>
<p>Vegetables</p> <p><i>Vegetables with * may be eaten in very small quantities (<2tbs /day). Those underlined must be strictly avoided.</i></p> <p>Artichoke hearts*, <u>Artichoke (Jerusalem)</u>, Asparagus*, Avocado* (<¼). Beetroot*, Broccoli*, Brussels Sprouts*, Butternut squash*, Cauliflower, Celery*, Chicory root, Fennel* (bulb and leaves) <u>Garlic</u>, <u>Leek</u>, Mange tout*, <u>Mushroom</u>, Okra*, <u>Onion (red, white, Spanish, shallots)</u>, Peas*, Savoy Cabbage*, <u>Spring onion (white part)</u>. Sugar snap peas, Sweet potato*, Sweetcorn*,</p> <p><u>Beans and pulses</u> (chickpeas, broad beans, soy beans, black eyes beans, butter beans, lentils, baked beans, canned kidney beans*, split peas).</p>	<p>Vegetables</p> <p><i>Try to have at least 3 portions per day. One portion is 80g (3-4tbs).</i></p> <p>Alfalfa, Aubergine, Bamboo shoot, Beansprouts, Carrot, Chard, Chilli, Chive, Courgette, Cucumber, Edamame beans, Endive, Green beans, Kale, Lettuce, Olive, Pak Choy, Parsnip, Pepper (green, orange, yellow and red), Plantain, White Potato, Pumpkin, Radish, Rocket, Seaweed, Spinach, Spring onion (<i>green part only</i>), Swede, Tomato, Turnip, Water chestnuts, White or red cabbage</p> <p>Pickled: beetroot, onion (2 only), garlic (1 clove)</p>
<p>Flavoured crisps, soups, stocks, gravy, sauces, dressings, & ready meals</p> <p>These should be <u>avoided</u> as they routinely contain garlic or onion ingredients</p> <p><u>Garlic or onion ingredients:</u> <i>These should be avoided as they are a concentrated source of FODMAPs. Check ingredients labels.</i></p> <p>Dried onion or garlic, garlic or onion extract, garlic or onion powder, garlic or onion puree, garlic or onion salt.</p>	<p>Soups, stocks, gravy, sauces, dressings & ready meals</p> <p>Use homemade alternatives with dried herbs and spices or chives.</p> <p>Garlic infused oil (strained) may be used and Asofoetida powder (hing) can provide onion flavour.</p> <p>Salt, pepper, white/rice vinegar, balsamic vinegar (1tbs only) any herbs, spices, chilli, chives, cinnamon, coriander, ginger, lemon/lime juice green part of spring onion, marmite, miso, mustard, tamarind, peanut butter, wasabi, Worcestershire sauce</p>

<u>Foods to avoid</u>	<u>Suitable</u>
<p>Sugars, preserves, sauces and confectionary</p> <p>Honey, Agave nectar, golden syrup, Fructose syrup, Molasses, Coconut sugar</p> <p>Sweet and savoury sauces, snack bars.</p> <p><i>Check ingredients label for: glucose-fructose syrup, fructose-glucose syrup, high fructose corn syrup and high fructose corn syrup solids.</i></p> <p>Added Polyols</p> <p>Sugar-free mints, Sugar-free chewing gums, sugar-free lollies, sugar-free chocolate, some 'diet/low calorie' products, protein powders and supplement drinks.</p> <p><i>Check ingredients label for sorbitol, mannitol, xylitol, erythritol, isomalt.</i></p> <p>Added Fructans</p> <p>Foods or tablets with added fibre or prebiotics e.g some yoghurts, fermented milk drinks, snack bars, breakfast cereals.</p> <p><i>Check ingredients labels for FOS, inulin, oligofructose.</i></p>	<p>Sugars, preserves and confectionary</p> <p>Sugar, maple syrup, treacle, jam and marmalade (from suitable fruits).</p> <p><i>Check ingredients in low sugar or reduced sugar jam and marmalade for Polyols.</i></p> <p>Some artificial sweeteners: aspartame, acesulfame K, saccharin, Canderel, Silver spoon Splenda, Hermesetas.</p> <p><i>Most people in the UK eat too much sugar. For a healthy diet you should try eating less food containing added sugars. High sugar foods contain more than 15g per 100g and low sugar foods contain up to 5g sugars per 100g.</i></p>
<p>Nuts and seeds</p> <p>Cashew and Pistachio Nuts.</p> <p>Coconut (dried) in large quantities.</p>	<p>Nuts and seeds</p> <p>Most are suitable in moderation (<i>small handful</i>)</p> <p>Macadamia nuts, peanuts, pecans, pine nuts, pumpkin seeds, sesame seeds, sunflower seeds, walnuts.</p> <p>Coconut, dried (<3 tbs)</p> <p>Almonds and hazelnuts - <i>maximum 10.</i></p> <p>Peanut butter</p>
<p>Drinks</p> <p>Chicory (Camp), Dandelion tea, Camomile, Chai, Fennel.</p> <p><i>Check fruit and herbal teas for unsuitable fruit (apple).</i></p> <p>Alcohol-Rum, Dessert wine.</p>	<p>Drinks</p> <p>Have at least 6-8 glasses or 1.5-2.0 litres of fluid per day. Choose water or non-caffeinated drinks and limit fizzy drinks.</p> <p>Alcohol - is a stimulant and may increase IBS symptoms. While most alcoholic drinks are low in FODMAP's, if alcohol increases your symptoms, limit your intake.</p>

<u>High Lactose Foods - limit</u>	<u>Suitable lactose alternatives</u>
Milk Whole, skimmed, semi-skimmed milk, goats, sheeps milk, buttermilk* milk powder, evaporated milk, condensed milk.	Milk <i>Ensure alternative milks are calcium enriched. Check alternative milks for apple juice, fructose and inulin.</i> <ul style="list-style-type: none"> • Lactose free milk (Lactofree, own brands) • Almond or hazelnut milk • < 50ml Soya milk • <200ml Rice milk (Rice Dream, Alpro) • <40ml Oat Milk (Oatly Oat Drink) • *$\frac{1}{4}$ cup (50ml) maximum of whole, skimmed or semi -skimmed milk is permitted in a drink, part of a meal or snack
Yoghurt Whole milk, low fat, greek, drinking yoghurts*. Fromage frais.	Yoghurt <i>Check for problem fruit, FOS, inulin, oligofructose. fruit juice concentrate, fructose.</i> <ul style="list-style-type: none"> • Lactose free cow's milk yoghurt • Max 125g Soya yoghurt • Coconut yoghurt • *2tbs maximum (check for other FODMAP's) is permitted as part of a meal or snack.
Cheese* Processed cheese, cheese slices, reduced fat cheddar	Cheese *2 tbs maximum Cottage cheese, ricotta, quark, low fat soft cheese, mascarpone, 2 slices halloumi. Cheddar, feta, mozzarella, brie, camembert, blue, cream cheese, Edam, goats. Soy cheese
Other dairy:	Other dairy: Butter, cream, sour cream, crème fraiche are low lactose in small amounts.
Custard* Standard custard made from cows/goats milk	Custard Soya custard /Custard desserts (Alpro - all flavours) *2 tbs maximum of normal custard is allowed. If making from powder use lactose-free milk.
Ice cream* Dairy ice cream, goats milk ice cream	Ice cream <i>check for other FODMAP's</i> <ul style="list-style-type: none"> • Lactose free ice-cream (Lactofree) • Soya ice cream (Swedish Glace) • Oat or coconut ice cream • *1 scoop maximum of normal ice cream.
Chocolate*	Chocolate: Dark chocolate *30g maximum of milk / white chocolate.

*These foods are tolerated in small amounts - see suitable food column for amounts.

Low FODMAP Meal Plan: Choose from the following meal ideas:

Breakfast

- Porridge or wheat free cereal with suitable milk
- Wheat/rye- free toast with cheese/suitable jam/peanut butter
- 2 eggs on wheat/rye free or 100% sourdough spelt toast
- Cheese and chive omelette
- Smoothie made with suitable fruit and lactose-free yogurt
- Cooked breakfast - bacon, egg, tomato, hash brown with wheat/rye free or sourdough spelt toast

Lunch

- Wheat/rye free sandwich/pitta/wrap or wheat/rye free crispbread with tuna/sardines/salmon/egg/cheese/cold meat/poultry/ham with salad
- Homemade soup made with suitable vegetables and wheat free bread.
- Baked potato or rice with tuna/ cheese or homemade filling (e.g. chilli)
- Salad/rice salad/potato salad/gluten free pasta salad with cold meat/tuna/eggs/cheese
- Sushi/sashimi
- Suitable fruit/yoghurt

Dinner

- Steak /chop/fish/poultry /tofu/Quorn with suitable vegetables and rice/rice noodles/wheat free pasta/gluten free pasta/potato /polenta
- Risotto or omelette with salad
- Gluten free pasta/spaghetti with bolognaise (no onion/garlic) with salad
- Corn taco shells with beef mince, crème fraîche and salad
- Suitable fruit/fruit salad/ rice pudding/ice cream/yoghurt/custard.

Beverages

- Water +/- lemon
- Semi-skimmed milk (or alternative milk)
- Tea/coffee
- 1/3 glass (100ml) fruit juice/smoothie made with suitable fruit. Tip: add water to fruit juice to make a longer drink.
- Fruit squash - suitable fruit flavours (*check sweeteners*)

Snacks

- Suitable fruit
- Low fat yoghurt (*check ingredients + lactose free if needed*)
- Vegetable sticks and dip (*check for onion*)
- Cheese and tomato/ peanut butter on rice crackers/corn/oat cakes
- Handful of suitable nuts
- Occasionally: Potato crisps (unsalted, ready salted or salt and vinegar), popcorn, dark chocolate, wheat free / gluten free cakes.

Eating out on a low FODMAP diet

Eating out can be challenging on a low FODMAP diet. You need to choose carefully, but some restaurants and food outlets now provide wheat and gluten free options for those that need it, which can be a useful starting point. Do explain your requirements when you get there, or check on-line menus in advance.

Suitable choices for main meal:

- Fish, poultry or meat with potatoes, salad or vegetables (e.g. steak/fish and chips)
- Risotto (request no onion/leek) with suitable vegetables
- Baked potato with salad and suitable filling.
- Asian style rice or rice noodle dishes (check vegetables), sushi.
- Gluten free pizza (choose your own toppings)

Tips

- Avoid eating coatings, batter, sauces,
- Choose options that are without a sauce (e.g. steak, stir fry, risotto) Ask for sauce or gravy to be served in a separate dish
- Gluten free options avoid wheat but check for other ingredients e.g. onion /leek/garlic.

Some people get symptoms when eating out because it is difficult to stick closely to the diet, or perhaps because they may have a larger meals than usual, or an alcoholic drink alongside. However, eating out should be a nice experience and the benefits usually outweigh the symptoms!

What if my symptoms do not improve on a low FODMAP diet?

The low FODMAP diet is beneficial for many individuals with IBS symptoms but not for everyone. If you have followed the closely but your symptoms have not improved after 6 weeks please contact your doctor/dietitian for further advice.

What about foods not listed?

Further details on other foods and safe quantities can be found on the Monash University app

<https://www.monashfodmap.com/ibs-central/i-have-ibs/starting-the-low-fodmap-diet/>

Or for further support, ideas for meals, recipes and information, please view our website for further links.