PATIENT INFORMATION

LOW FODMAP DIET

The low FODMAP diet was first formulated in Australia and is now implemented worldwide, predominantly for the management of irritable bowel syndrome (IBS). The diet involves the restriction of fermentable oligosaccharides, disaccharides, monosaccharides and polyols. A list of major sources of high FODMAPs foods can be found in Table 1. Restriction of foods containing these carbohydrates results in the improvement of gastrointestinal and global symptoms in IBS such as bloating, flatulence, diarrhoea, fatigue and brain fog. This is thought to be due to a reduction in colonic water and colonic fermentation, motility changes (intestinal movement), reduced small intestinal transit time (and reduced digestion and absorption there), alterations in gastrointestinal microbiome and its metabolism, and reduced visceral hypersensitivity (pain) (See FIG 1). A low FODMAP diet may also improve gastrointestinal symptoms in other conditions such as small intestinal bacterial overgrowth (SIBO), inflammatory bowel disease (IBD), non-Coeliac gluten sensitivity, and functional dyspepsia (epigastric pain and burning, early satiety, postprandial fullness and nausea). Ask your practitioner about the suitability of a low FODMAP diet for your condition.

While adherence to a low FODMAP diet provides significant relief to many with IBS, it has some limitations in that it reduces fibre intake, which is known to be beneficial to the microbiome and overall health, as well as other nutrients such as calcium and iron. For some, it may also be difficult to follow in the long term. Additionally, there is an argument that removal of irritating foods is only one part of a comprehensive protocol and improving overall digestive function will likely provide a more long-lasting benefit. For these reasons, it is suggested that the low FODMAP diet be implemented in 3 stages: (1) FODMAP restriction, (2) FODMAP reintroduction, and (3) FODMAP personalisation. Your practitioner will help guide you through these 3 stages, along with other complimentary treatment as required so that you can enjoy the widest variety of foods possible, whilst at the same time reducing your symptoms.

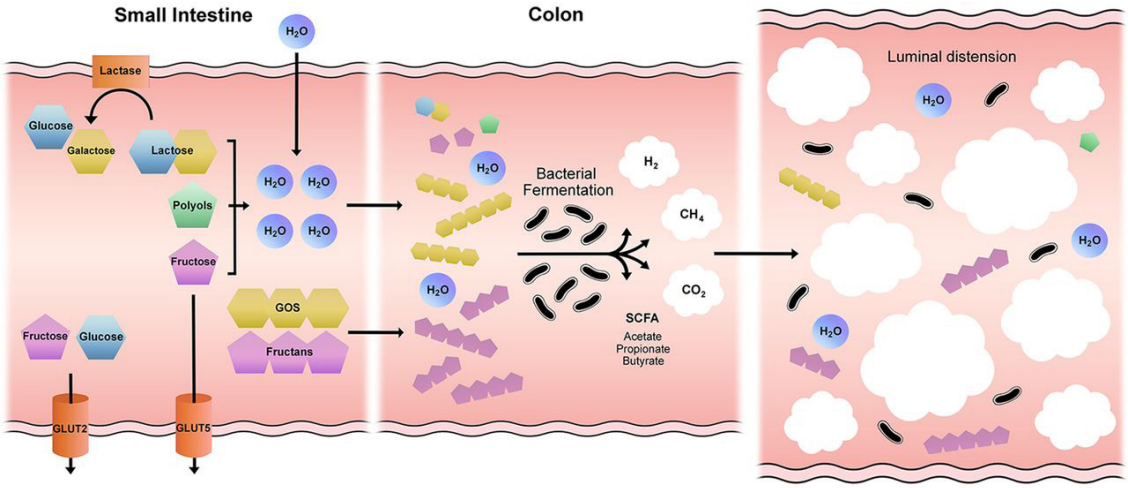

FIG 1: Mechanisms of the effects of FODMAPs on gastrointestinal function.

CATEGORIES OF FODMAPs	EXAMPLES OF MAJOR SOURCES	DIGESTION AND ABSORPTION PROCESS
Oligosaccharides		
Fructans (oligofructose, inulin, fructo-oligosaccharides (FOS)	Wheat, rye, onion, garlic, artichoke, low-fat dairy products	Humans lack enzymes to hydrolyse oligosaccharides so are not absorbed
Galacto-oligosaccharides (GOS) (Raffinose, Stachyose)	Pulses, legumes, some nuts	
Disaccharide		
Lactose	Milk and milk products	The enzyme lactase is required for hydrolysis and absorption in the small intestine. Lactase expression decreases over time following weaning depending on ethnicity
Monosaccharide		
Fructose	Mango, fig, honey, fructose corn syrup, sweetener in dairy products, jam	Absorbed in the small intestine via GLUT5 and GLUT2 transporters. Glucose aids fructose absorption via GLUT2 and in some individuals fructose malabsorption occurs when it is in excess of glucose or when there is a high fructose load
Polyols		
Sorbitol	Stone fruit, apple	Passive absorption along the length of the small intestine depending on molecular size, intestinal pore size, small intestinal transit time and presence of gastrointestinal disease
Mannitol	Cauliflower, mushroom	
Lactitol, xylitol, erythritol, maltitol	Sugar free gum	

PATIENT INFORMATION TOOL

Low FODMAPs diet food list

	DO EAT ME	DON'T EAT ME
Flours/grains	Spelt sourdough bread, gluten-free bread, quinoa pasta, plain rice cakes, gluten free pasta, white rice, brown rice, oat bran, oats	Wheat, rye, quinoa, spelt pasta, spelt flakes, couscous, amaranth, barley, pumpernickel
Legumes	Red lentils, tempeh, sprouted mung beans, tofu – firm or plain	Haricot beans, chickpeas, green lentils, butter beans, lima beans, red kidney beans, split peas, borlotti beans, baked beans, soy, mung beans, adzuki beans, pinto beans, silken tofu
Vegetables	Zucchini (limit to 1/3 cup), fennel leaves, bean sprouts, cherry and roma tomato, tinned tomato, lettuce, baby spinach, turnip, broccoli, okra, , chilli, jap pumpkin, potato, sweet potato (1/2 cup), green beans, alfalfa, canned artichoke hearts (<1 cup), eggplant (limit to <2 cups), bamboo shoots, bok choy, broccoli (head only), red capsicum, carrot, chilli, wombok, canned corn, cucumber, galangal, ginger, kale, okra (7 or less), olives, parsnip, radish, silver beet, turnip, red and green cabbage, celeriac, shallot tops (green bit only)	Mushrooms, beetroot (fresh), snow peas, cabbage, garlic, onion, leeks, artichoke, butternut pumpkin, corn, avocado, cauliflower, celery, fennel (bulb), leek, shallots, peas, asparagus, broccolini, Brussels sprouts, savoy cabbage
Fruit	Rockmelon, pineapple, lemon juice, oranges, dragon fruit, grapes, guava, Kakadu plum, kiwi fruit, lime juice, mandarin, passionfruit, papaya, star fruit, strawberry	Apple, apricots watermelon, grapefruit, custard apple, nectarine, peach, rambutan, banana, blackberry, blueberry, cherries, cranberries, dates, figs, goji berries, lychee, mango, honeydew melon, nashi pear, pear, plum, pomegranate, prunes, raspberry, tamarillo
Nuts/seeds	Pine nuts, Brazil nuts, tigernuts, peanuts, sesame seeds, sunflower seeds, pumpkin seeds, macadamia, coconut (limit to 2/3 cup), linseeds (limit to 1 tablespoon), shredded coconut, chestnuts, pecan, chia, hemp, poppy seeds, walnuts	Almonds, cashews, coconut flour, pistachio
Animal foods	Beef, chicken, fish, pork, lamb, kangaroo, cheese – cheddar, Swiss, mozzarella, havarti, feta, cream cheese, cottage, brie, lactose free yoghurt, butter, cream, sour cream, lactose-free milk	Milk, yoghurt, buttermilk, thickened cream, kefir, goats milk
Miscellaneous	Coconut milk, nutritional yeast, dulse flakes, wheat grass, spirulina, kelp noodles, nutritional yeast, peanut butter, peanut oil, coconut oil, sesame oil, cacao powder, coconut yoghurt, coconut sugar, rice milk, chocolate, gin, beer, vodka, wine, peppermint tea, black tea, coffee, agar agar	Almond milk, soy milk, oat milk, coconut water, coconut syrup, honey, fruit juices, kombucha, rum, carob

A comprehensive list of FODMAP foods, including pre-packaged foods, can be found on the Monash University FODMAP app. You can find it at https://www.monashfodmap.com/ibs-central/i-have-ibs/get-the-app/

Example menu for low FODMAPs diet

BREAKFAST	LUNCH	DINNER	SNACK	DRINK
Tofu scramble with low FODMAP vegetables	Gluten free sandwich with cheese, tomato, lettuce, alfalfa and carrot	Fish skewers with red capsicum, sweet potato and pineapple, served on a bed of brown rice	Coconut yoghurt with strawberries	Peppermint tea
Grilled tomatoes, basil and feta on gluten free toast	Asian wombok salad with shallot tops, carrot, toasted peanuts and a sesame, lime and soy dressing and grilled tofu	Gluten free pizza with spinach, olives, feta and pine nuts	Cacao chia pudding with papaya and passionfruit	Coffee on macadamia milk
Overnight oats with strawberries and shredded coconut	Tuna, tomato and cucumber salad with feta and a slice of gluten free bread	Brown rice stir-fry with tofu, beef, chicken or eggs	Piece of fruit and a handful of walnuts	Fresh made juice with pineapple, carrot, ginger and beetroot

PLEASE NOTE: This dietary plan is intended as a temporary solution and is to be used in combination with the Gastrointestinal Restoration Protocol.