

What are FODMAPs?

FODMAPS is an acronym representing a group of dietary sugars (short chain carbohydrates) naturally occurring in various foods that are believed to be associated with triggering digestive symptoms in those with irritable bowel syndrome (IBS).

FODMAP is an acronym that stands for:

- **F**ermentable → process through which gut bacteria break down undigested carbohydrates and release gas
- **O**ligosaccharides → short chains of carbohydrates linked together. Two types of oligosaccharides
 - Fructans (chain of fructose molecules)
 - galacto-oligosaccharides (chain of galactose molecules)
 - No human gut can breakdown and properly these molecules in the small intestine
- **D**isaccharides → two carbohydrates molecules linked together. Lactose the sugar present in milk and dairy products is composed of glucose and galactose. Before lactose can be absorbed in the small intestine, it needs to be broken down by enzyme lactase.
- **M**onosaccharides → single carbohydrate molecules. When fructose is present in equal concentrations with glucose, it is easily absorbed. However, when fructose is present in excess of glucose, the absorption of fructose depends on the activity of transporters located in the intestinal wall. The ability to absorb excess fructose varies from person to person.
- **A**ND
- **P**olyols → also referred to as sugar alcohols, are a type of carbohydrates that is only partially absorbed in the small intestine. Polyols are naturally found in some fruit and vegetables and widely added to low sugar products as an artificial sweetener (sorbitol, mannitol, xylitol, and isomalt).

Sample foods that are high in FODMAPs*

Lactose	Excess fructose	Fructans	GOS	Polyols
Milk	Apples	Dried fruit	Legumes	Apples
Icecream	Figs	Blueberries	Pistachios	Apricots
Yogurt	Mango	Raspberries	Cashews	Blackberries

Handout adapted from a variety of resources including Patty Catsos, 2014; Stephanie Clairmont Digestive Clinic; Kate Scarlatta IBS and FODMAP Expert; Niagara Health resources; Clinical Practice Guide to Probiotics, 2018.

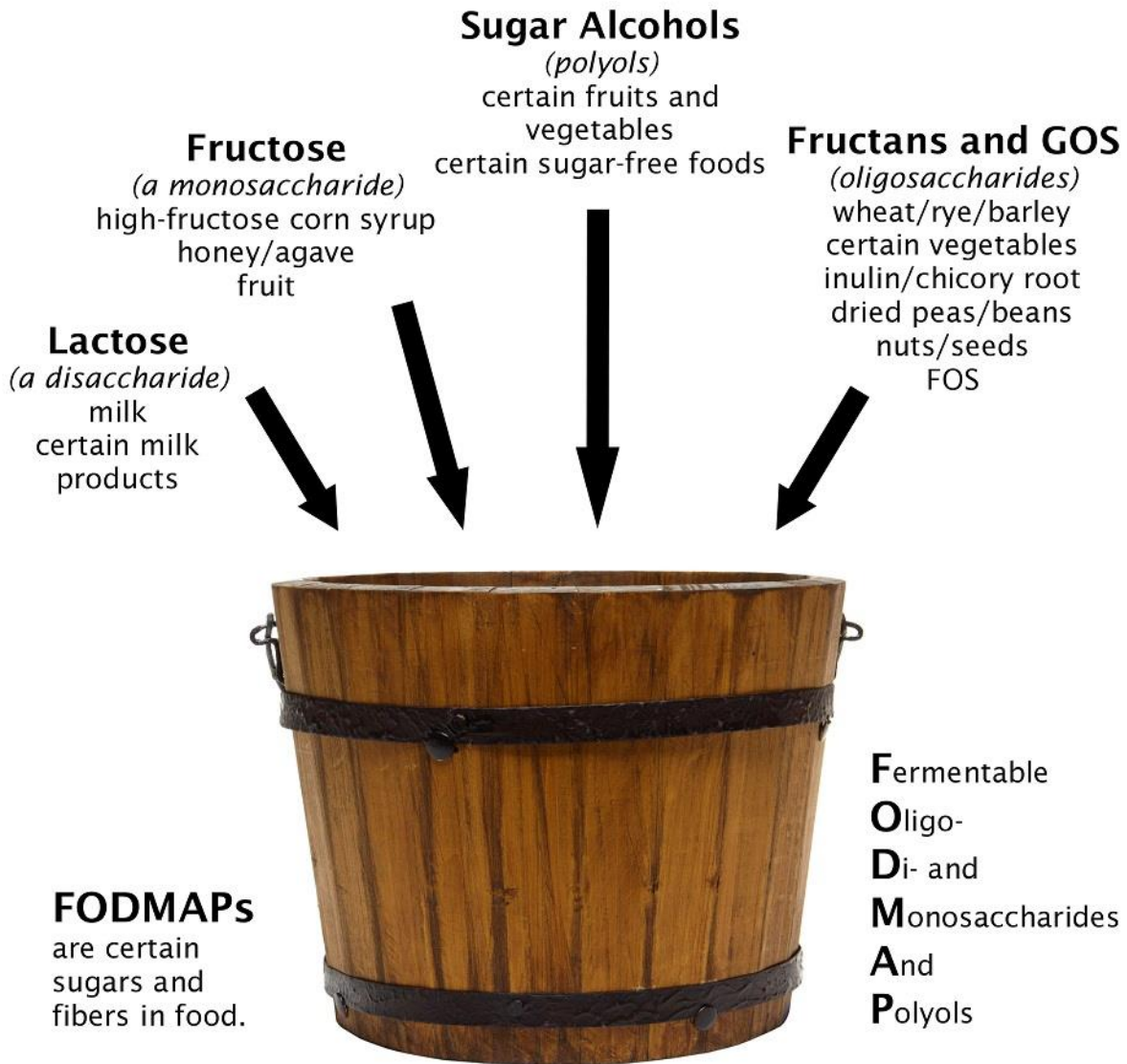
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Milk powder	Pears			Nectarines
Ricotta cheese	Watermelon	Nectarines		Peaches
Cottage cheese	Asparagus	Persimmon		Pears
Kefir	Sugar snap peas	Watermelon		Cauliflower
	Artichoke	Artichoke		Mushrooms
	High fructose corn syrup	Garlic		Sugar alcohols:isomalt, mannitol, sorbitol, maltitol
	Honey	Onions		
	Agave	Wheat, barely, rye		
		Chicory root extract		
		Inulin fibre		

*list is not exhaustive

How FODMAPs trigger digestive symptoms:

- Individuals with IBS are believed to have a hypersensitive gut or enhanced visceral hypersensitivity, making them more in tune with gastrointestinal symptoms. Even a slight change in intestinal volume can cause the nerve network to overreact and trigger IBS symptoms
- There are believed to be two main mechanisms associated with triggering IBS symptoms such as: abdominal pain, distension, bloating, cramping, gas, constipation and/or diarrhea:
 1. FODMAP molecules are highly osmotic pull water into the small intestine and colon. This can affect the motility of the gut, and cause diarrhea/urgency
 2. Once in the colon, FODMAP molecules are fermented by the bacteria which naturally resides there, this process creates gas. This can result in abdominal distension, bloating and cramping



All dietary FODMAPs go into the same “bucket”

The bucket represents your unique, personal capacity to tolerate FODMAPs from all sources. If your intake of FODMAPs exceeds your small intestine’s capacity to digest and absorb them, they will overflow into the large intestine. Gastrointestinal symptoms may result in people with irritable bowel syndrome.

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Research shows that reducing or eliminating foods that are high in FODMAPs can help to improve IBS like symptoms for 3 out of 4 people. Research is also

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showing that following a low FODMAP eating pattern can help individuals with other digestive problems such as Crohns and Diverticulitis.

The low FODMAP diet is a dietary approach to help manage digestive symptoms related to IBS. The low FODMAP diet is a **short term 'learning diet'** with the goal of determining your unique tolerance to the different FODMAP categories and then using that information to create a life long diet. **It is not meant to be a permanent diet prescription.**

FODMAPs are beneficial for are gut! FODMAPs are natural prebiotics, meaning they are food for the good bacteria in the gut. Studies have shown that ingestion of oligosaccharides (fructans + GOS) can encourage growth of beneficial bacteria such as bifidobacteria.

It takes 3 steps to find out if FODMAPs are a trigger for your IBS like symptoms:

Step One: Eliminate all high FODMAP foods for 2-6 weeks or until you are at least 50% or more symptom free. This is the Elimination Phase. It is recommended that you keep a Food and Symptom Journal during this time.

Step Two: Return each group of FODMAPs in a systematic way. This is the Challenge Phase. The challenge phase is important to determine which groups and at what dose you personally can tolerate. It is recommended that you continue to keep a Food and Symptom Journal as well as track your challenge foods. This can take between 5-10 weeks for most people.

Step Three: Use your new knowledge to eat the most varied diet possible while still feeling well.

Stress and Anxiety

Stress and anxiety can trigger digestive problems. It is important to consider if this is the case for you so that you don't blame your symptoms on foods when in fact it may not be foods but rather emotions. Practicing relaxation techniques such as meditation or deep breathing, doing regular exercise or speaking with a counsellor to discuss stress or anxiety could also be important tools to helping your digestive health.

Food Journals

Keeping a Food/Symptom Journal is also crucial to helping determine which foods cause some of your symptoms. There is an app called MYSYMPTOMS Food Diary that is user friendly or you can track your intake and symptoms on a standard template or notebook.

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