

LOW FODMAP DIET

WHAT ARE FODMAPS?

The term "FODMAP" is an acronym that stands for:

→ **Fermentable**

Broken down by bacteria in the gut

→ **Oligosaccharides**

Fructans (in grains, vegetables, and some fruits)

Galacto-oligosaccharides (legumes/beans and lentils)

→ **Disaccharides**

Lactose (milk and dairy products)

→ **Monosaccharides**

Fructose (fruit, honey, some vegetables, agave syrup)

→ **And**

→ **Polyols**

Sugar Alcohols (some fruits and vegetables, sugar-free sweeteners)

FODMAPs are not inherently "bad" for everyone. Many people can eat these fermentable carbohydrates with no ill effects. However, there are certain individuals who respond strongly and negatively to a high level of FODMAPs and must monitor the amount they are ingesting to avoid unpleasant symptoms.

Because FODMAPs are not absorbed completely by the small intestine, the excess travels down into the large intestine where anaerobic bacteria feed on them and produce large amounts of gas. This gas is what is responsible for the significant gastrointestinal problems some individuals experience such as abdominal pain, bloating, and flatulence.

Humans lack the enzymes to digest **Oligosaccharides**, so no one is able to absorb them (the bacteria break them down). **Polyols** absorption is incomplete, so they are malabsorbed in many people. **Disaccharides** (like lactose) and **Monosaccharides** (such as fructose) are only malabsorbed in some people. Breath tests are available to determine tolerance to lactose and fructose.

WHAT IS A LOW FODMAP DIET?

The Low FODMAP Diet is a diet low in fermentable, poorly absorbed carbohydrates. Because this diet removes the foods that feed bacteria in the gut, it helps relieve gas, bloating and other digestive symptoms. Studies have shown a Low FODMAP diet can greatly reduce the symptoms of IBS, Crohn's, and colitis. Additionally, a Low FODMAP Diet is often combined with the SCD diet as part of a protocol to address SIBO.

The Low FODMAP Diet is **not** meant to be a lifetime diet. Once the GI tract has been repaired (pathogens have been eliminated, SIBO has been addressed, gut bacteria have been brought back into balance, digestive function has been improved), it should be possible to reintroduce many of these foods.

In general, the Low FODMAP Diet involves avoiding ALL high FODMAP foods for a short time (until symptoms are gone) then adding back the FODMAP categories one at a time to determine tolerance level. If a category is tolerated, the individual may keep this category in and go to the next. If the category is not tolerated, that category should be taken back out, and the individual should proceed with the next category.



FODMAP INTOLERANCE SYMPTOMS:

A Low FODMAP Diet should be considered anytime there are persistent gastrointestinal symptoms.

FODMAPs are osmotic, meaning they draw water into the intestinal tract, so they commonly cause diarrhea in sensitive individuals.

Fructose malabsorption has been associated with decreased tryptophan, serotonin, and melatonin, contributing to anxiety, depression, and/or sleep problems.

Common symptoms include:

- Gas
- Bloating
- Diarrhea
- Constipation
- Mixed Alternating Diarrhea & Constipation
- Intestinal Pain

RESOURCES:

➤ **Low FODMAP Diet App:** Monash University has a Low FODMAP Diet Smartphone app available for Apple and Android.

<http://monashfodmap.com/blog>

➤ **Living Health With IBS Website:** Low FODMAP recipes and charts showing foods by FODMAP category

<http://livinghappywithibs.com/>

LOW FODMAP DIET - FOOD LIST

HOW TO FOLLOW A LOW FODMAP DIET:

Following a Low FODMAP Diet means **avoiding** ALL high FODMAP foods for **2-8 weeks** (until symptoms are gone) then **adding back** the FODMAP categories **one at a time** (one category per week) to determine tolerance level. If a category is tolerated, the individual may keep this category in and go to the next. If the category is not tolerated, that category should be taken back out, and the individual should proceed with the next category.

It is important to note that FODMAP reactions can be cumulative. While foods may be tolerated at a certain amount, when combined with additional FODMAPs from the same or different FODMAP category, they may NOT be tolerated (if the individual's personal threshold is exceeded).

- Although **GARLIC** must be avoided, a garlic oil infusion (purchased or homemade) is low FODMAP and permitted. Chop garlic, sauté in oil, strain out the garlic from the oil, and refrigerate.
- **AVOID PREBIOTICS** because they are a fermentable food for bacteria. Common prebiotics found in probiotic supplements include: FOS (fructooligosaccharide), inulin, arabinogalactan, and GOS (galactooligosaccharide).

LOW FODMAP FOODS (PERMITTED)	HIGH FODMAP FOODS (AVOID)
<p>MEAT/PROTEIN:</p> <ul style="list-style-type: none"> - Beef - Bison - Fish - Lamb - Pork - Poultry - Seafood <p>DAIRY:</p> <ul style="list-style-type: none"> - Hard cheeses (cheddar, Colby, Swiss, parmesan) - Lactose-Free Milk/Yogurt <p>◇ Many people tolerate < 4 mg of lactose per serving (1 mg of lactose = 1 Tbsp cream or sour cream, 1 tsp cream cheese, 2 Tbsp cottage cheese)</p> <p>VEGETABLES:</p> <ul style="list-style-type: none"> - Arugula - Bamboo Shoots - Bell Peppers - Bok Choy - Carrots - Chives - Collard Greens - Cucumber - Green Beans - Kale - Lettuce - Parsnips - Potatoes - Pumpkin - Radish - Squash - Tomatoes - Turnips - Water Chestnuts - Zucchini <p>FRUITS:</p> <ul style="list-style-type: none"> - Banana - Blueberries - Cantaloupe - Clementine - Cranberries - Limes - Lemons - Grapes - Honeydew melon - Kiwi - Mandarin - Oranges - Passion Fruit - Pineapple - Raspberry - Strawberries - Tangerine <p>GRAINS:</p> <ul style="list-style-type: none"> - Arrowroot - Oats (gluten-free) - Millet - Polenta - Quinoa - Rice - Sorghum - Tapioca <p>FATS/OILS:</p> <ul style="list-style-type: none"> - Coconut Oil - Duck Fat - Lard - MCT Oil - Macadamia Oil - Olive Oil - Palm Oil - Tallow - Garlic-infused oil <p>NUTS/SEEDS:</p> <p>Should be limited to about 10-15 nuts or 1-2 Tbsp seeds</p> <p>SPICES/SEASONINGS:</p> <ul style="list-style-type: none"> - All spices (except onion & garlic) <p>SWEETENERS:</p> <ul style="list-style-type: none"> - Stevia (pure/no inulin) - Maple syrup - Sugar (cane) 	<p>LEGUMES:</p> <ul style="list-style-type: none"> - Beans - Lentils - Chickpeas <p>DAIRY:</p> <ul style="list-style-type: none"> - Milk - Cream - Yogurt - Ice Cream - Cream Cheese - Soft cheese <p>MISC:</p> <ul style="list-style-type: none"> - Chamomile Tea - Chicory - Cocoa Powder - Dandelion - Fennel Tea - Inulin - FOS <p>VEGETABLES:</p> <ul style="list-style-type: none"> - Artichoke - Asparagus - Beet - Broccoli - Brussels sprouts - Cabbage - Cauliflower - Celery - Fennel - Garlic - Leek - Mushrooms - Onion - Peas - Peas (snow) - Peas (sugar snap) - Shallots - Spring onion (white part) <p>FRUITS:</p> <ul style="list-style-type: none"> - Apple - Apricot - Avocado - Blackberries - Cherries - Date - Fig - Lychee - Mango - Nectarines - Pear - Peach - Persimmon - Plum - Prune - Watermelon - Dried fruit - Fruit juice <p>GRAINS:</p> <ul style="list-style-type: none"> - Wheat - Barley - Rye <p>FATS/OILS</p> <p>NUTS/SEEDS:</p> <ul style="list-style-type: none"> - Almonds - Cashews - Pistachios <p>SPICES/SEASONINGS:</p> <ul style="list-style-type: none"> - Onion & Garlic - Condiments made with garlic/onion (mayo, mustard, pickles) <p>SWEETENERS:</p> <ul style="list-style-type: none"> - Sugar Alcohols (sorbitol, mannitol, malitol, isomalt, xylitol) - High Fructose Corn Syrup - Agave Syrup - Fructose - Honey - Fruit Juice Concentrate