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GASTROENTEROLOGY, HEPATOLOGY AND THERAPEUTIC ENDOSCOPY

THE LOW FODMAP DIET

(FODMAP=Fermentable Oligo-Di-Monosaccharides and Polyols)

FODMAPs are certain carbohydrates (sugars) found in foods that we can not always digest.

Dietary FODMAPs include:

- Fructose: Fruits (including apples, mangos, pears, watermelon), honey, high-fructose corn syrup, agave
- Lactose: Dairy (milk from cows, goats, or sheep), custard, yogurt, ice cream
- Fructans: Rye and Wheat, asparagus, broccoli, cabbage, onions, garlic
- Galactans: Legumes, such as beans (including baked beans), lentils, chickpeas, and soybeans
- Polyols: Sugar alcohols and fruits that have pits or seeds, such as apples, apricots, avocados, cherries, figs, peaches, pears, or plums

FODMAPs are *osmotic* (means they pull water into the intestinal tract), may not be digested or absorbed well and could be fermented upon by bacteria in the intestinal tract when eaten in excess. Symptoms of gas, bloating, cramping and/or diarrhea may occur in those who could be sensitive to the effects of FODMAPs. The low FODMAP diet is often used in those with irritable bowel syndrome (IBS). The diet also has potential use in those with similar symptoms arising from other digestive disorders such as inflammatory bowel disease. However, this diet will also limit some high fiber foods which contain high amounts of FODMAPs.

TIPS FOR SUCCESSFUL ELIMINATION WITH LOW FODMAP diet:

- **Buy gluten free grains as they are wheat free.** However, you do not need to follow a 100% gluten free diet as the focus is on FODMAPs, not gluten. Look for gluten free grains made with low FODMAPs, such as potato, quinoa, rice or corn. Avoid gluten free grains made with high FODMAPs
- **Read food labels.** Avoid foods made with high FODMAPs such as high FODMAP fruits, HFCS, honey, inulin, wheat, soy, etc. However, a food could be an overall low FODMAP food if a high FODMAP food listed as the last ingredient.
- **Then, follow these three steps:**
 - **Elimination** – Remove all FODMAP carbs from your diet for several weeks. Your symptoms may improve immediately or over several weeks.
 - **Reintroduction** - Introduce FODMAPs one at a time to identify which foods you can tolerate and in what amount.
 - **Personalization** – Finally, adjust your diet to increase variety while adjusting the type and amount of FODMAP carbs you eat, based on what you learnt above. **Limit serving sizes for low FODMAP fruits/vegetables and high fiber/low FODMAP foods** such as quinoa to a *½ cup per meal* (½ cup=size of a tennis ball). If you have any symptoms after eating these foods, they could be related to eating large amounts of low FODMAPs or fiber all at once

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Food Group	Foods to Eat	Foods to Limit
Meats, Poultry Fish, Eggs	beef, chicken, canned tuna, eggs, egg whites, fish, lamb, pork, shellfish, turkey, cold cuts	Meats with high FODMAP fruit sauces
Dairy	Lactose free products or Plant based milk products, small quantities of mozzarella, coconut milk, coconut cream,	Buttermilk, milk chocolate, cottage cheese, ice cream, creamy/cheesy sauces, milk (from cow, sheep or goat), sweetened condensed milk, evaporated milk, soft cheeses (brie, ricotta), sour cream, whipped cream, most yogurt
Meat, Non-Dairy Alternatives	almond milk, rice milk, rice milk ice cream, nuts, nut butters, seeds	beans, black eyed peas, hummus, lentils, pistachios, soy products
Grains	gluten free grains/wheat free flours: Quinoa, Rice, corn, buckwheat, teff, tapioca	Wheat, Rye, Barley, Flour products (<i>spelt, wheat flours- bromated, durum, enriched, farina, graham, semolina</i>)
Fruits	bananas, berries, cantaloupe, grapes, grapefruit, honeydew, kiwi, kumquat, lemon, lime, mandarin, orange, passion fruit, pineapple, rhubarb, tangerine	Banana (ripe), currants, dates, dried figs, grapefruit, prunes, watermelon, avocado, apples, applesauce, apricots, canned fruit, cherries, dried fruits, figs, guava, lychee, mango, nectarines, pears, papaya, peaches, plums, prunes, persimmon
Vegetables	bamboo shoots, bell peppers, bok choy, cucumbers, carrots, celery, corn, eggplant, lettuce, leafy greens pumpkin, potatoes, squash, yams, (butternut, winter), tomatoes, zucchini	Artichokes, asparagus, beets, leeks, broccoli, brussel sprouts, cabbage, cauliflower, fennel, green beans, mushrooms, okra, snow peas, summer squash, garlic, shallots, onions, peas, soybeans, kidney beans
Seasonings, Condiments	most spices and herbs, homemade broth, butter, chives, flaxseed, garlic flavored oil, garlic powder, olives, margarine, mayonnaise, olive oil, pepper, salt, sugar, mustard, soy sauce, marinara sauce (small amounts), vinegars	HFCS, agave, chutneys, coconut, garlic, honey, jams, jellies, molasses, onions, pickle, relish, high FODMAP fruit/vegetable sauces, salad dressings made with high FODMAPs, artificial sweeteners: sorbitol, mannitol, isomalt, xylitol (cough drops, gums, mints)

Low FODMAP Meals and Snack Ideas

- Gluten free waffle with walnuts, blueberries, maple syrup without HFCS
- Oatmeal topped with sliced banana, almonds and brown sugar
- Eggs scrambled with spinach, bell peppers and cheddar cheese
- Balsamic vinegar salad dressing
- Rice pasta with chicken, tomatoes, spinach topped with pesto sauce
- Beef and vegetable stew (made with homemade broth, beef, allowed vegetables)
- Chicken salad mixed with chicken, lettuce, bell peppers, cucumbers, tomatoes,
- Turkey wrap with gluten free tortilla, sliced turkey, lettuce, tomato
- Ham and swiss cheese sandwich on gluten free bread