# Digestive Health Center Nutrition Services



# The Low FODMAP Diet (FODMAP=Fermentable Oligo-Di-Monosaccharides and Polyols)

FODMAPs are carbohydrates (sugars) that are found in foods. Not all carbohydrates are considered FODMAPs.

## The FODMAPs in the diet are:

- Fructose (fruits, honey, high fructose corn syrup (HFCS), etc)
- Lactose (dairy)
- Fructans (wheat, garlic, onion, inulin etc)
- Galactans (legumes such as beans, lentils, soybeans, etc)
- Polyols (sweeteners containing isomalt, mannitol, sorbitol, xylitol, stone fruits such as avocado, apricots, cherries, nectarines, peaches, plums, etc)

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 diarrhea, constipation, gas, bloating and/or cramping may occur in those who could be sensitive to the effects of FODMAPs. A low FODMAP diet may help reduce symptoms, which will limit foods high in fructose, lactose, fructans, galactans and polyols.

The low FODMAP diet is often used in those with irritable bowel syndrome (IBS). The diet could be possibly used in those with similar symptoms arising from other digestive disorders such as inflammatory bowel disease.

This diet will also limit fiber as some high fiber foods are also high in FODMAPs (Fiber is a component of complex carbohydrates that the body cannot digest, found in plant based foods such as beans, fruits, vegetables, whole grains, etc)

Food Group	Low FODMAPs	High FODMAPs (avoid)
Eggs, Meats, Poultry, Fish	beef, chicken, deli slices, eggs, fish, lamb, pork, shellfish, turkey	made with HFCS/foods to limit
Dairy	lactose free dairy (any), low lactose dairy: cream cheese, half and half, hard cheeses (cheddar, colby, parmesan, swiss, etc), soft cheeses (brie, feta, mozzarella, etc), sherbet, yogurt (greek), whipped cream	high lactose dairy: buttermilk, chocolate, creamy/cheesy sauces, custard, ice cream, milk (cow's, goat's, sheep's, condensed, evaporated), soft cheeses (cottage, ricotta, etc), sour cream
Meat, Non- Dairy Alternatives	milk alternatives (almond, coconut, rice, soy (made from soy protein)), nuts (walnut, macadamia, peanut, pecan, pine), nut butters, tempeh, tofu	cashews, beans, black eyed peas, bulgur, lentils, miso, pistachios, soybeans, soy milk (made from soybeans)
Grains	made with gluten free/spelt grains (corn, oats, potato, quinoa, rice, tapioca, etc): bagels, biscuits, breads, cereals, chips, crackers, noodles, pancakes, pastas, pretzels, tortillas, waffles oatmeal, oat bran, popcorn, quinoa, rice, rice bran	made with wheat/barley/rye when it's the major ingredient, gluten free/spelt grains made with foods to limit, chicory root, inulin
Fruits	bananas, blueberries, cantaloupe, cranberries, grapes, honeydew, kiwi, lemon, lime, mandarin, orange, passion fruit, pineapple, raspberries, rhubarb, strawberries, tangerine	apples, applesauce, apricots, blackberries, boysenberries, canned fruit, dates, dried fruits, figs, guava, mango, nectarines, papaya, peaches, pears, plums, persimmon, prunes, watermelon
Vegetables	alfalfa/bean sprouts, bamboo shoots, bell peppers, bok choy, carrots, cabbage (common), cucumbers, eggplant, green beans, kale, lettuce, parsnips, pumpkin, potatoes, radishes, rutabaga, seaweed (nori), spinach, squash, tomatoes, turnips, water chestnuts, zucchini	artichokes, cauliflower, mushrooms, sugar snap peas
Desserts	made with foods allowed	made with HFCS/foods to limit
Beverages	fruit and vegetable juices/smoothies made with foods allowed (limit to ½ cup at a time), coffee, tea	made with HFCS/foods to limit, fortified wines (sherry, port)
Seasonings, Condiments	jam, jelly, pickle, relish, salsa, sauce, salad dressing made with foods allowed, most spices and herbs, broth (homemade), butter, chives, cooking oils, garlic/onion infused oil, maple syrup without HFCS, mustard, margarine, mayonnaise, onion (springgreen part), olives, pepper, pesto, salt, seeds (chia, flax, pumpkin, sesame, sunflower), sugar, soy sauce, vinegar	chutney, jam, jelly, pickle, relish, salsa, sauce or salad dressing made with HFCS/ foods to limit, agave, garlic, garlic salt/powders, honey, hummus, molasses, onions (brown, leeks, shallots, spanish, white, spring-white part), onion salt/powders, tomato paste, artificial sweeteners (isomalt, mannitol, sorbitol, xylitol)

# Moderate FODMAPs (limit)

There are some foods that are considered moderate FODMAPs. Follow the serving sizes listed below for these foods. Avoid the foods only if you have symptoms.

Fruits	Vegetables	Nuts
1/4 avocado	1/4 cup artichoke hearts	< 10 almonds
<3 cherries	(canned)	< 10 hazelnuts
½ grapefruit (medium)	<3 asparagus spears	
<10 longon	4 beet slices	
<5 lychee	< ½ cup broccoli	
½ pomegranate (small)	< 1/2 cup brussels sprouts	
<3 rambutan	< 1/4 cup butternut pumpkin	
< 1/4 cup shredded coconut	< 1 cup cabbage (savoy)	
<10 dried banana chips	1 celery stick	
	< ½ cup green peas	
	3 okra pods	
	<10 pods snow peas	
	½ corn cob	
	< 1/2 cup sweet potato	

# Tips for a low FODMAP diet:

- Review food lists, collect recipes and go grocery shopping first. Once you are ready, start and follow the diet for 6 weeks.
- Read food labels. Avoid foods made with high FODMAP fruits/vegetables, HFCS, honey, inulin, wheat, soy, etc. However, a food could be low in FODMAPs if a high FODMAP food is listed at the end of the ingredient list.
- Buy gluten free grains as they do not have wheat, barley or rye in them.
  However, you do not need to be on a strict gluten free diet as the focus is to limit FODMAPs, not gluten.
- Limit serving sizes for low lactose dairy to small amounts and low FODMAP fruits/vegetables to a ½ cup per meal (½ cup=size of a tennis ball) if you have symptoms after eating these foods. The symptoms could be related to eating large amounts of FODMAPs all at once.
- Include low FODMAP foods rich in fiber such as oatmeal if you develop constipation while on the diet. Drink plenty of water as well.
- After the trial is over, add high FODMAP foods one at a time back in the diet in small amounts to identify foods that could be "triggers" to your symptoms. Limit those foods if so.

## Low FODMAP Meals and Snack Ideas

- gluten free waffle with walnuts, blueberries, maple syrup without HFCS
- eggs scrambled with spinach, bell peppers and cheddar cheese
- oatmeal topped with sliced banana, almonds and brown sugar
- fruit smoothie blended with lactose free vanilla yogurt and strawberries (½ cup)
- rice pasta with chicken, tomatoes, spinach topped with pesto sauce
- chicken salad mixed with chicken, lettuce, bell peppers, cucumbers, tomatoes, balsamic vinegar salad dressing without HFCS
- turkey wrap with gluten free tortilla, sliced turkey, lettuce, tomato, slice of cheddar cheese slice, mayonnaise, mustard
- ham and swiss cheese sandwich on gluten free bread, with mayonnaise, mustard
- quesadilla with corn or gluten free tortilla and cheddar cheese
- beef and vegetable stew (made with homemade broth, beef, allowed vegetables)

## **Resources:**

The Monash University Low FODMAP Diet Department of Gastroenterology, Monash University

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NS 1/2014

<sup>&</sup>quot;Extending Our Knowledge of Fermentable, Short Chain Carbohydrates for Managing Gastrointestinal Symptoms" Nutrition in Clinical Practice June 2013

<sup>&</sup>quot;A FODMAP Diet Update: Craze or Credible?" Nutrition Issues in Gastroenterology December 2012

<sup>&</sup>quot;Evidence Based Dietary Management of Functional Gastrointestinal Symptoms: The FODMAP Approach" Journal of Gastroenterology and Hepatology February 2010



# **FODMAP DIET**

Ever since I <u>posted</u> about how a low FODMAP carbohydrate diet has been amazing for my IBS issues (major gassiness, constipation and lethargy), I've been receiving almost a new email every week from people looking for a complete list of these foods so they can implement it too. Apparently a LOT of people have these gut issues and it's not pleasant for anyone. Since I've been sending this list out, though, there have been a lot of success stories. I personally have never been happier and no medication or therapy has ever been this beneficial for me.

These past few weeks have been really stressful for me though as I'm moving into my own bootcamp location and have been writing for more and more companies. So, I wasn't sticking to the low FODMAP food list as closely as I should have and my gut has been suffering. But, once I took the FODMAPS out, it's been much better.

In any matter - to make it easy for everyone who wants to know what to eat and not to eat, I'm posting the complete FODMAP list here for you all. Now, I want to disclaim that this is not a list intended to cure or treat every single person out there, and you still need to listen to your own body to find out what works best for you, versus someone else. You're your own best health advocate, so listen to your own gut instinct (no pun intended):)

Here is the complete FODMAP list I've found works best for most people:

#### **ELIMINATING FODMAPs**

#### FRUITS TO AVOID:

#### **Excess Fructose fruit:**

**Apple** 

Mango

Nashi fruit

Pear

Persimmon

Rambutan

Watermelon

#### **Excess Fructan fruit:**

Persimmon

Rambutan

Watermelon

## **Excess Polyol fruit:**

Apple

Apricot

Avocado

Blackberries

Cherries

Longon

Lychee

Nashi Fruit

Nectarine

Peach

Pear

Plum

Prune

Watermelon



#### **SUITABLE FRUITS:**

Banana

Blueberries – buy organic

Boysenberry - buy organic

Cantaloupe

Star fruit

Cranberry - buy organic

Durian

Grapes - buy organic

Grapefruit

Honeydew melon

Kiwi

Lemon

Lime

Mandarin

Orange

Passion fruit

Paw paw

Pineapple

Raspberry - buy organic

Rhubarb

Strawberry - buy organic

Tangelo

## Suitable dried fruits (some people are ok with dried fruits, others are not):

Banana chips

Cranberries (often are coated in sugar – only eat if not sweetened)

Currants

Paw paw

Pineapple (often are coated in sugar – only eat if not sweetened)

Sultanas

Raisins (may not be suitable for everyone...)

## Special notes on fruit:

Limit intake of suitable fruits to one serve per meal.

e.g. One whole banana or orange.

Third to half a glass of suitable juice.

Small handful of berries or grapes.

Small amount of suitable dried fruit (e.g. 10 sultanas).

## **VEGETABLES TO AVOID:**

### **Excess Fructose vegetables:**

Sugar snap peas

# Excess Fructan vegetables:

Artichokes (Globe & Jerusalem)

Asparagus

Beet

**Brussel Sprouts** 

Cabbage

Chicory

Dandelion leaves

Fennel



Garlic

Leek

Legumes

Okra

Onion (brown, white, & Spanish)

Peas

Radicchio lettuce

Shallot

Spring onion (white section).

## **Excess Polyol vegetables:**

Avocado

Cauliflower

Mushrooms

Snow peas

#### SUITABLE VEGETABLES:

Alfalfa

Bamboo shoots

Bean shoots

Beans (green)

Bok choy

Broccoli (may not be suitable for everyone...)

Capsicum

Carrot

Celery

Chives

Choy sum

Corn (raw corn may bother some people)

Cucumber

Endive

Eggplant (this may be troublesome for some; check individual tolerance)

Ginger

Lettuce (may be ok or not)

Marrow

Olives

Parsnip

Parsley

Potato

Pumpkin

Silverbeet

Spring onion (green section)

Spinach

Squash (this may be troublesome for some; check individual tolerance)

Swede

Sweet potato

Taro

Tomato (cherry tomatoes often are moldy - try to avoid)

Turnip

Yam

Zucchini (this may be troublesome for some; check individual tolerance)

#### Special notes on vegetables:

Onion is one of the greatest contributors to IBS. Strict avoidance is recommended.



#### Avoid:

- · Onion (brown, white & Spanish), Onion powder, White section of spring onion.
- · Leeks, Shallots, Garlic.

There is undeclared onion hidden in many processed foods including, chicken salt, vegetable salt, vegetable powder, dehydrated vegetables, stocks, gravies, soups, marinades, & sauces. Alternatives:

- Chives
- · Green part of spring onion
- · Asafoetida powder (\* contains gluten).
- Fresh & dried ginger, coriander, basil, lemongrass, chili, mint, parsley, marjoram, oregano, thyme, rosemary & others.

# **PROBLEM WHEAT & Rye products:**

Bread (white, wholemeal, multigrain, sourdough, pita, & many rye)

Pasta & noodles (regular, two minute, spelt, egg noodles, hokkien & udon)

Breakfast cereals (containing wheat, excess dried fruit &/or fruit juice).

Savoury biscuits (wheat based)

Cakes & baked goods (wheat based)

Sweet biscuits (wheat based)

Pastry & breadcrumbs (wheat flour made)

Others (semolina, couscous, bulger)

#### **ALTERNATIVES to WHEAT Grains:**

Rice

Corn (may bother some people)

Potato

Amaranth

Tapioca

Quinoa

Millet

Sorgum

Buckwheat

Arrowroot

Sago

# **ALTERNATIVES to WHEAT Products:** (DO NOT RELY ON THESE - eat real food instead)

Gluten free bread

Gluten free pasta, rice noodles, wheat free buckwheat noodles.

Porridge, wheat free muesli, rice bubbles, corn flakes, & gluten free cereals.

Corn thins, rice cakes & crackers, gluten free crackers, ryvitas, & rye cruskits.

Gluten free cakes, flourless cakes.

Gluten free biscuits.

Gluten free pastry mixes, & bread crumbs, polenta, cornflake crumbs.

Buckwheat, polenta, millet, sorghum, sago, tapioca, rice, & corn flours.

## Special notes on Wheat:

- Wheat free Rye is tolerable for most (assess individually).
- · Small amounts of wheat, such as breadcrumbs, may be tolerable (assess individually).
- Those with diagnosed Coeliac disease should eliminate gluten from their diet.
- · Gluten free foods do not contain wheat, rye oats & barley.
- A low FODMAP diet allows oats & barley.
- Trace amounts of wheat ingredients such as soy sauce should not be a problem.
- · Many wheat derived products such as wheat starch, wheat thickeners, wheat maltodextrin,



wheat dextrin, wheat dextrose, wheat glucose, & wheat color caramel are fructan free glucose chains & should be safe to eat.

#### OTHER FODMAPs FOODS (containing, FRUCTOSE &/or Fructans) to AVOID:

- Honey
- Corn syrups
- · Corn syrup solids
- Fruisana
- Chickory
- Dandelion tea
- Inulin
- Artificial sweeteners (see GOS)
- · Sugar free or low carb sweets, mints, gums, & dairy desserts.
- · Baked beans, lentils, & chick peas

#### **Alternatives:**

- Golden syrup
- Treacle
- Molasses
- Maple syrup
- White, brown, raw & castor sugar (sucrose) eaten in moderation.
- Tea, coffee, & herbal teas
- Nuts & seeds (moderation)
- Oat bran
- · Barley bran.
- Psyllium.
- · Rice bran.
- Suitable sweeteners (nutrasweet, sucralose, aspartame, stevia, saccharine, tic tacs, minties, regular gum).

#### Special comments:

- · Limit alcohol intake.
- Avoid alcohol which is high in indigestible carbohydrate, such as beer.
- · Clear spirits such as Vodka & Gin with water/soda flavored with fresh suitable fruit in moderation is preferable.
- · Drink plenty of water.
- · Eat in moderation.
- · Chew your food well.
- Limit processed foods (hidden FODMAPs & irritants).
- · Limit or avoid processed meats ((hidden FODMAPs & irritants).
- Fresh fruit, vegetables, & whole meats/fish are best.

POSTED MAY 27, 2011 BY CASSANDRA FORSYTHE.







