## **High Fiber Diet**

#### **Purpose**

Dietary fiber is the part of a plant which is not digested by the stomach or small intestine. Rather, it arrives unchanged in the colon. There, it does two things:

- It provides bulk or roughage and thereby helps promote regularity.
- Far more important, many of these fibers are a food and nourishment source for the myriad numbers of bacteria that normally reside in the colon.

When adequate fiber is consumed, 25-35 grams per day, many amazing health benefits occur in the colon and body.

#### **Function of the Colon**

One job of the colon is to complete the digestive process. This occurs by removing excess water from food wastes entering from the small intestine. When wastes pass through the intestines too quickly, not enough water is absorbed. Watery stools and diarrhea are the result. In contrast, if the passage of waste is too slow, too much water is absorbed. This results in hard stools and constipation, which often leads to constipation and straining.

These above facts have long been known. What is now known is that the huge numbers and the great diversity of bacteria within the colon play a vital role in promoting and maintaining good health. These benefits include producing vitamins and enzymes, enhancing the immune system, controlling cholesterol and triglyceride levels, even in the prevention of certain cancers.

#### **Bacteria in the Colon**

The huge numbers of bacteria in the colon and the consumed fiber that reaches it are intimately tied together.

- There are trillions upon trillions of bacteria in the human colon, more than 10 times the human cells in the body. There is a reason for this.
- The total number of genes in all these bacteria is 100 times greater than the genes in a person's body. There is a reason for this as well.
- Each person has their own particular make up of bacteria in his or her colon, much like a fingerprint. The only way to change this is to make a permanent change in the fiber intake.
- The bacteria in the colon have been called "super organisms" because of all the wonderful healthful outcomes they can produce.
- The bacteria are your friends. Protect and grow the good ones. Get rid of the bad ones.

#### The Importance of Dietary Fiber

While there are many types of fiber that interest food chemists, there are only a few that need concern the public:

- Insoluble Fiber This fiber does not dissolve in water, nor is it fermented by the bacteria in the gut. Rather, it retains water and in so doing helps to promote a softer, bulkier stool. This, in turn, may be of importance in sweeping out certain toxins and cancer-causing carcinogens.
- Soluble Fiber -These fibers are fermented by colon bacteria. These bacteria need their own nourishment and food source. The health benefits these bugs provide is strictly dependent on the amounts of soluble fiber.
- Prebiotic Soluble Fiber There are specialized types of soluble fibers which have been demonstrated to have the most positive health benefits, as found in established medical research centers. The three that have been definitively proven are inulin, oligofrustose and galacto-oligosaccharide.

In summary, all plant fiber has both insoluble and soluble fiber in it. However, the amount varies. Wheat and corn fiber are 90% insoluble, while oats is about 50/50. Artichokes are very high in soluble fiber. Eating 25-35 grams per day of varied plant-based food will provide a well-balanced amount of fiber inulin. A dietary fiber supplement such as  $\operatorname{Prebiotin}^{\text{TM}}$  can also be used.

#### **Health Benefits of Prebiotic Fibers**

It is remarkable to know the health benefits that are provided when adequate amounts of prebiotic plant fibers, yet each of these below is supported by medical research in medical research centers and by peer-reviewed medical journals.

- Increase Good Colon Bacteria
- Increase Calcium Absorption
- Enhance Immune System
- Reduce Triglycerides Level
- Control Appetite and Weight
- Reduce Colon Polyp and Cancer Factors
- Increase Satiety and Weight Loss
- Improve Bowel Regularity
- Increase Bone Density
- Decrease Bad Colon Bacteria
- Reduce Allergies and Asthma
- Improve Colon and Body Health
- Decrease Flatus Smell

While prebiotic fibers are distributed widely in nature in small amounts, they are particularly concentrated in the following vegetables:

- Onions
- Garlic
- Bananas
- Leeks
- Artichokes

- Asparagus
- Chicory Root
- Yams
- Wheat (Small Amount)

### **Fiber and Irritable Bowel Syndrome**

Irritable bowel syndrome (IBS) is one of the most common disorders of the lower digestive tract. The symptoms of IBS can be quite varied. They can be mostly of one type or a mix of several symptoms such as constipation, diarrhea, crampy abdominal discomfort, bloating and gas. An attack of IBS can be triggered by emotional tension and anxiety, poor dietary habits and certain medications. It is now known that infections in the intestine can lead to long-term IBS symptoms. Increased amounts of fiber in the diet can help relieve the symptoms of irritable bowel syndrome by producing soft, bulky stools. This helps to normalize the time it takes for the stool to pass through the colon. Irritable bowel syndrome, if left untreated, may lead to diverticulosis of the colon.

IBS patients need to be careful of the amount of soluble fiber they consume. The reason for this is that, while the good colon bacteria thrive on these fibers and produce health benefits, the bad gas-forming bacteria may generate excessive gas and subsequent bloating. Thus, prebiotic soluble plant fibers or a dietary prebiotic supplement should be taken in small initial doses and then gradually increased to tolerance.

### Fiber and Colon Polyps/Cancer

Colon cancer is a major health problem. This disease is most common in Western cultures. Most colon cancer starts out as a colon polyp, a benign mushroom-shaped growth. In time it grows, and in some people it becomes cancerous. Colon cancer is usually always curable, if polyps are removed when found or if surgery is performed at an early stage. It is now known that people can inherit the risk of developing colon cancer, but diet is important, too. There is a very low rate of colon cancer in residents of countries where grains are unprocessed and retain their fiber. It seems that in the Western world, cancer-containing agents (carcinogens) remain in contact with the colon wall for a longer time and in higher concentrations. So, a large bulky stool may act to dilute these carcinogens by moving them through the bowel more quickly. Less carcinogenic exposure to the colon may mean fewer colon polyps and less cancer.

Additionally, there appear to be substances produced in the colon by the good bacteria that seem to retard certain pre-cancer factors from developing. These are called short-chain fatty acids.

So, the combination of colon bulk and the production of short-chain fatty acids may be cancer-retarding effects.

#### **Fiber and Diverticulosis**

Prolonged, vigorous contraction of the colon, usually in the left lower side, may result in diverticulosis. This increased pressure causes small and eventually larger ballooning pockets to form. These pockets usually cause no problems. However, sometimes they can become infected (diverticulitis) or even break open (perforate) causing infection or inflammation

within the abdomen (peritonitis). A high-fiber diet increases the bulk in the stool and thereby reduces the pressure within the colon. By so doing, the formation of pockets is reduced or possibly even stopped.

Certain bulking agents such as psyllium are traditional types of supplements. Psyllium is a soluble fiber. Combining it with insoluble fiber as in wheat bran or corn bran (no gluten) can enhance this bulking effect even more. The product Prebiotin Regularity/Diverticulosis™ contains prebiotic, psyllium and wheat bran, an exceptionally good combination for bowel regularity.

In the past, many physicians were fearful that seems as in tomatoes, nuts or berries were harmful and could get inside these pockets and rattle around, causing damage. We now know that this has never been the case and that these foods contain lots of fiber and are actually beneficial for diverticulosis patients.

#### Fiber and Gas

Everyone has intestinal gas and that is a good thing. The normal amount of flatus passed each day depends on sex and what is eaten. When the bacteria that make intestinal gases are growing it also means that other good bacteria are using the same fibers to grow and produce multiple health benefits, including the production of healthy short-chain fatty acids. These substances are produced quietly in the colon and produce many health-related outcomes. The normal number of passes of gas or flatus is 10-20 times a day with men having more.

Soluble fiber should always be used in a gradual manner. If too much is consumed at any one time, then excess, but harmless, intestinal gas can occur. People with irritable bowel syndrome are particularly prone to bloating and mild cramping. Soluble fiber in the diet or supplement should be used in small doses and increased gradually.

Finally, prebiotic fibers tend to cause the production of short-chain fatty acids which acidify the colon. This in turn reduces or stops the growth of bacteria that make the smelly hydrogen sulfide gases that produce noxious flatus. People who consume many vegetables with prebiotics or take a prebiotic fiber supplement generally have non-odoriferous flatus.

# **High Fiber Diet**

A high fiber diet contains foods that have a lot of fiber. Fiber is the part of fruits, vegetables, and grains that is not broken down by your body. A high fiber diet will add bulk and softness to your bowel movements (BMs). This diet may help if you have constipation (kon-sti-PAY-shun), high cholesterol (koh-LES-ter-ol), or diabetes (deyeah-BEE-teez). Your caregiver may want you to eat more fiber if you have diverticulosis (deye-ver-tik-u-LOH-sis) or irritable (IR-i-tah-bl) bowel syndrome (sin-DROHM).

- Below are some ways that you can increase the fiber in your diet:
  - Eat a high-fiber cereal for breakfast. Look for cereals that have bran or
  - fiber in the name.

- Eat whole grain breads such as whole wheat bread. Whole wheat, wholewheat
- flour, or other whole grains should be listed as the first ingredient
- on the food label.
- Choose whole grain products such as brown rice, barley and whole wheat
- pasta.
- Add bran cereal or wheat bran to baked products. Replace white flour with
- whole grain flour or use half of each when baking bread. Whole grain
- flour is heavier than white flour. You may have to add more yeast or
- baking powder to your recipe.
- Add beans, peas and lentils (small dried beans that are cooked) to your
- diet. You can do this by adding beans to soups or salads.
- Eat at least five different servings of fruits and vegetables each day. You
- can add fruits to your diet by eating them during meals or snacks. You can
- add vegetables to your meals as a side dish or add them to main dishes
- such as soups or pastas. You can also eat fruits or vegetables as a snack.

### What foods are good sources of fiber? T

### • Each of the following high-fiber foods have five or more grams of fiber:

- Five dried prunes.
- One-third cup of All Bran®.
- One cup of blueberries.
- One-half cup of cooked barley.
- One-half cup of cooked dried beans, peas, or legumes.
- One-third cup of Fiber One®.
- One-half cup of fresh, frozen, or canned green peas.
- One-half cup of stewed prunes.
- One cup of whole wheat pasta.
- One medium raw apple with skin.
- One medium raw pear with skin.
- One ounce of almonds.
- Ten figs or dates.
- Ten pods of snowpeas.
- Three cups of air-popped popcorn.

### • Each of the following medium-fiber foods have two to four grams of fiber:

- One-half of a cooked potato with skin.
- One-half cup of cooked brown rice.
- One-half cup of fresh or frozen broccoli.
- One-half cup of Grapenuts Flakes®.
- One cup of oatmeal.
- One-half cup of raw carrots.
- One-third cup of (bite size) Shredded Wheat®.
- One cup of strawberries.
- One medium raw apple with no skin.
- One slice of rye bread.

- One slice of whole wheat bread.
- One small bran muffin.
- One small orange.
- One-half of a sweet potato with skin.
- Three graham wafers.
- Two tablespoons of smooth, crunchy peanut butter.

### What other diet guidelines should I follow?

- Add fiber to your diet slowly. Adding a lot of fiber to your diet too quickly may cause abdominal (ab-DOM-i-nal) (stomach) discomfort, bloating and gas.
- Drink plenty of liquids when adding fiber to your diet. You should drink at least eight (8-ounce) cups of water per day. If you do not drink enough water, you may have constipation.
- Caregivers may suggest that you use a fiber powder or pill to decrease constipation. Eating a high fiber diet is a healthier way to decrease constipation, and to keep your BMs regular. Fiber-rich foods provide extra vitamins and minerals that these powders and pills do not provide.
- Check with your caregiver before using over-the-counter products to help bloating or abdominal discomfort. Tablets or liquid drops like Beano® can decrease gas formation (for-MAY-shun). Products that contain "simethicone" (seye-MEH-thikon) can help break up larger gas bubbles and decrease your symptoms.

#### **Risks:**

• Adding fiber to your diet too quickly can cause gas and bloating. Fiber works best when you drink plenty of liquids. If you are not drinking plenty of liquids, you may have constipation.

#### HIGH FIBER FOODS LIST with TOTAL FIBER GRAMS (g)

Fresh & Dried Fruit	Serving Size	Fiber (g)
Apples with skin	1 medium	5.0
Apricot	3 medium	1.0
Apricots, dried	4 pieces	2.9
Banana	1 medium	3.9
Blueberries	1 cup	4.2
Cantaloupe, cubes	1 cup	1.3
Figs, dried	2 medium	3.7
Grapefruit	1/2 medium	3.1
Orange, navel	1 medium	3.4
Peach	1 medium	2.0
Peaches, dried	3 pieces	3.2
Pear	1 medium	5.1
Plum	1 medium	1.1
Raisins	1.5 oz box	1.6
Raspberries	1 cup	6.4
Strawberries	1 cup	4.4

Grains, Beans, Nuts & Seeds	Serving Size	Fiber (g)		
Almonds	1 oz	4.2		
Black beans, cooked	1 cup	13.9		
Bran cereal	1 cup	19.9		
Bread, whole wheat	1 slice	2.0		
Brown rice, dry	1 cup	7.9		
Cashews	1 oz	1.0		
Flax seeds	3 Tbsp.	6.9		
Garbanzo beans, cooked	1 cup	5.8		
Kidney beans, cooked	1 cup	11.6		
Lentils, red cooked	1 cup	13.6		
Lima beans, cooked	1 cup	8.6		
Oats, rolled dry	1 cup	12.0		
Quinoa (seeds) dry	1/4 cup	6.2		
Quinoa, cooked	1 cup	8.4		
Pasta, whole wheat	1 cup	6.3		
Peanuts	1 oz	2.3		
Pistachio nuts	1 oz	3.1		
Pumpkin seeds	1/4 cup	4.1		
Soybeans, cooked	1 cup	8.6		
Sunflower seeds	1/4 cup	3.0		
Walnuts	1 oz	3.1		

Vegetables	Serving Size	Fiber (g)		
Avocado (fruit)	1 medium	11.8		
Beets, cooked	1 cup	2.8		
Beet greens	1 cup	4.2		
Bok choy, cooked	1 cup	2.8		
Broccoli, cooked	1 cup	4.5		
Brussels sprouts, cooked	1 cup	3.6		
Cabbage, cooked	1 cup	4.2		
Carrot	1 medium	2.6		
Carrot, cooked	1 cup	5.2		
Cauliflower, cooked	1 cup	3.4		
Cole slaw	1 cup	4.0		
Collard greens, cooked	1 cup	2.6		
Corn, sweet	1 cup	4.6		
Green beans	1 cup	4.0		
Celery	1 stalk	1.1		
Kale, cooked	1 cup	7.2		
Onions, raw	1 cup	2.9		
Peas, cooked	1 cup	8.8		
Peppers, sweet	1 cup	2.6		
Pop corn, air-popped	3 cups	3.6		
Potato, baked w/ skin	1 medium	4.8		
Spinach, cooked	1 cup	4.3		

Summer squash, cooked	1 cup	2.5
Sweet potato, cooked	1 medium	4.9
Swiss chard, cooked	1 cup	3.7
Tomato	1 medium	1.0
Winter squash, cooked	1 cup	6.2
Zucchini, cooked	1 cup	2.6

# Category A of Fiber Rich Foods (more than 7 grams/serving)

FOODS HIGH IN FIBER	AMOUNT	TOTAL FIBER (grams)
Avocado	1 medium	11.84
Black beans, cooked	1 cup	14.92
Bran cereal	1 cup	19.94
Broccoli, cooked	1 cup	4.50
Green peas, cooked	1 cup	8.84
Kale, cooked	1 cup	7.20
Kidney beans, cooked	1 cup	13.33
Lentils, cooked	1 cup	15.64
Lima beans, cooked	1 cup	13.16
Navy beans, cooked	1 cup	11.65
Oats, dry	1 cup	12.00
Pinto beans, cooked	1 cup	14.71
Split peas, cooked	1 cup	16.27
Raspberries	1 cup	8.34
Rice, brown, uncooked	1 cup	7.98
Soybeans, cooked	1 cup	7.62

# Category B of Fiber Rich Foods (more than 3 grams/serving)

FOODS HIGH IN FIBER	AMOUNT	TOTAL FIBER (grams)
Almonds	1 oz.	4.22
Apple, w/ skin	1 medium	5.00
Banana	1 medium	3.92
Blueberries	1 cup	4.18
Cabbage, cooked	1 cup	4.20
Cauliflower, cooked	1 cup	3.43
Corn, sweet	1 cup	4.66
Figs, dried	2 medium	3.74
Flax seeds	3 tsp.	6.97
Garbanzo beans, cooked	1 cup	5.80

Grapefruit	1/2 medium	6.12
Green beans, cooked	1 cup	3.95
Olives	1 cup	4.30
Oranges, navel	1 medium	3.40
Papaya	1 each	5.47
Pasta, whole wheat	1 cup	6.34
Peach, dried	3 pcs.	3.18
Pear	1 medium	5.08
Pistachio nuts	1 oz.	3.10
Potato, baked w/ skin	1 medium	4.80
Prunes	1/4 cup	3.02
Pumpkin seeds	1/4 cup	4.12
Sesame seeds	1/4 cup	4.32
Spinach, cooked	1 cup	3.98
Strawberries	1 cup	5.94
Sweet potato, cooked	1 cup	3.68
Swiss chard, cooked	1 cup	5.04
Winter squash	1 cup	5.74
Yam, cooked cubes	1 cup	5.30

# Category C of Fiber Rich Foods (less than 3 grams/serving)

FOODS HIGH IN FIBER	AMOUNT	TOTAL FIBER (grams)
Apricots	3 medium	0.98
Apricots, dried	5 pieces	2.89
Asparagus, cooked	1 cup	2.88
Beets, cooked	1 cup	2.85
Bread, whole wheat	1 slice	2.00
Brussels sprouts, cooked	1 cup	2.84
Cantaloupe, cubes	1 cup	1.28
Carrots, raw	1 medium	2.00
Cashews	1 oz.	1.00
Celery	1 stalk	1.02
Collard greens, cooked	1 cup	2.58
Cranberries	1/2 cup	1.99
Cucumber, sliced w/ peel	1 cup	0.83
Eggplant, cooked cubes	1 cup	2.48
Kiwifruit	1 each	2.58
Mushrooms, raw	1 cup	1.36
Mustard greens, cooked	1 cup	2.80
Onions, raw	1 cup	2.88

Peanuts	1 oz.	2.30
Peach	1 medium	2.00
Peppers, sweet	1 cup	2.62
Pineapple	1 cup	1.86
Plum	1 medium	1.00
Raisins	1.5 oz box	1.60
Romaine lettuce	1 cup	0.95
Summer squash, cooked	1 cup	2.52
Sunflower seeds	1/4 cup	3.00
Tomato	1 medium	1.00
Walnuts	1 oz.	2.98
Zucchini, cooked	1 cup	2.63

## Soluble Fiber and Insoluble Fiber Foods List with Fiber Grams (g)

Fresh & Dried Fruits	Serving Size	Soluble Fiber (g)	Insoluble Fiber (g)	Total Fiber (g)
Apple, with skin	1 medium	4.2	1.5	5.7
Apricots, dried	4 medium	1.8	1.7	3.5
Banana	1 medium	2.1	.07	2.8
Blackberries	1/2 cup	3.1	.07	3.8
Blueberries	1 cup	1.7	2.5	4.2
Figs, dried	3 medium	3.0	2.3	5.3
Grapefruit	1/2 fruit	2.4	0.7	3.1
Kiwi fruit	1 large	2.4	0.8	3.2
Orange	1 medium	2.1	1.3	3.4
Pear	1 medium	0.8	3.2	4.0
Plums	2 medium	1.2	1.0	2.2
Prunes, dried	4 medium	1.3	1.8	3.1
Raspberries	1/2 cup	0.9	2.3	3.2
Strawberries	1 cup	1.8	2.6	4.4

Nuts, Seeds & Beans	Serving Size	Soluble Fiber (g)	Insoluble Fiber (g)	Total Fiber(g)
Almonds, raw	1 ounce	0.7	3.5	4.2
Black beans, cooked	1/2 cup	3.8	3.1	6.9
Black-eyed peas, cooked	1/2 cup	2.2	1.9	4.1
Flaxseeds	2 tbsp.	2.7	2.1	4.8
Garbanzo beans, cooked	1/2 cup	1.2	2.8	4.0
Kidney beans, cooked	1/2 cup	2.9	2.9	5.8
Lentils, cooked	1/2 cup	2.8	3.8	6.6
Peanuts, dry roasted	1 ounce	1.1	1.2	2.3
Pinto beans, cooked	1/2 cup	5.5	1.9	7.4

Psyllium seed husks	2 tbsp.	7.1	0.9	8.0
Sesame seeds	1/4 cup	0.7	2.6	3.3
Split peas, cooked	1/2 cup	1.1	2.4	3.4
Sunflower seeds	1/4 cup	1.1	1.9	3.0
Walnuts	1 ounce	0.6	2.5	3.1
White beans, cooked	1/2 cup	3.8	0.4	4.2

Vegetables	Serving Size	Soluble Fiber (g)	Insoluble Fiber (g)	Total Fiber (g)
Artichoke, cooked	1 medium	4.7	1.8	6.5
Asparagus, cooked	1/2 cup	1.7	1.1	2.8
Broccoli, raw	1/2 cup	1.3	1.4	2.7
Brussels sprouts, cooked	1 cup	1.7	1.9	3.6
Carrot, raw	1 medium	1.1	1.5	2.6
Green peas, cooked	1/2 cup	3.2	1.2	4.4
Green Beans, cooked	1/2 cup	0.8	1.2	2.0
Kale, cooked	1 cup	2.1	5.1	7.2
Lima beans, cooked	1/2 cup	2.1	2.2	4.3
Okra, cooked	1/2 cup	3.1	1.0	4.0
Potato with skin	1 medium	2.4	2.4	4.8
Soybeans (edamame)	1/2 cup	2.7	2.2	4.9
Squash, summer, cooked	1/2 cup	1.3	1.2	2.5
Squash, winter, cooked	1/2 cup	1.7	1.4	3.1
Sweet potato, peeled	1 medium	2.7	2.2	4.9
Tomato with skin	1 medium	0.3	1.0	1.3
Zucchini, cooked	1/2 cup	1.4	1.2	2.6

Whole Grains	Serving Size	Soluble Fiber (g)	Insoluble Fiber (g)	Total Fiber (g)
Barley, cooked	1/2 cup	3.3	0.9	4.2
Brown rice, cooked	1/2 cup	1.3	0.1	1.4
Millet, cooked	1/2 cup	2.7	0.6	3.3
Oat bran, cooked	3/4 cup	2.2	1.8	4.0
Oatmeal, dry	1/3 cup	1.4	1.3	2.7
Oatmeal, cooked	1 cup	2.4	1.6	4.0
Popcorn, air popped	3 cups	3.2	0.4	3.6
Pumpernickel bread	1 slice	1.5	1.2	1.7
Quinoa (seeds), dry	1/4 cup	2.5	3.8	6.3
Quinoa, cooked	1/2 cup	1.7	2.5	4.2
Rye bread	1 slice	1.9	0.8	2.7
Wheat bran	1/2 cup	11.3	1.0	12.3
Wheat germ	3 tbsp.	3.2	0.7	3.9
Wholegrain bread	1 slice	2.8	0.1	2.9
Whole wheat bread	1 slice	1.6	0.3	1.9
Wholegrain pasta, cooked	1 cup	4.1	2.2	6.3

# **Fiber Supplement Chart**

# I. Comparison of Powder Fiber Brands

	<b>Metamucil</b> ®	Citrucel®	<b>Benefiber</b> ®	Fibersure®
Active Ingredient	Psyllium husk	Methylcellulose	Wheat dextrim	Inulin
Is Active Natural?	Natural	Semi Synthetic		Natural
FDA Approval for Laxation?	Yes	Yes	No	No
Grams of Active /Day for Laxation	2.5 – 30 grams	4 – 6 grams	Not approved for laxative	Not approved for laxative
Amount of Active/Dose	3.4 grams	2 grams	3 grams	5 grams
Required # of Doses/Day for Laxation	1	2	Not approved for laxative	Not approved for laxative
Lower Blood Cholesterol?	Yes	Minimal	No	No
Soluble Fiber/Insoluble Fiber?	70% soluble	100% soluble	100% soluble	100% soluble
Active holds water?	Yes	Yes	No	No
Active forms a gel?	Yes	No	No	No
Active Bulks Stools?	Yes	Yes	No	No
Active Traps Bile Acids?	Yes	No	No	Inadequate Data
Active is Fermentable?	Partially fermentable	No	Yes	Yes
Helps lower blood pressure?	Yes	Inadequate Data	Inadequate Data	Inadequate Data
Helps lower blood sugar?	Yes	Inadequate Data	Yes	No
Helps lower the risk of heart disease?	Yes	Inadequate Data	Inadequate Data	Inadequate Data

## II. Comparison of Solid Dose Fiber Brands

	Metamucil® Capsules	Fibercon® Swallowable Caplets	Citrucel® Swallowable Caplets	Fiberchoice®
Active Ingredient	Psyllium husk	Calcium Polycarbophil	Methylcellulose	Inulin
Is Active Natural?	Natural	Synthetic	Semi Synthetic	Natural
FDA Approval for Laxation?	Yes	Yes	Yes	No
Grams of Active/Day for Laxation	2.5 – 30 grams	4 – 6 grams	4 – 6 grams	5 grams
Amount of Active/Dose	0.525 grams/capsule 5 capsules/dose	0.625 g (eq. 0.5 g polycarbophile) /caplet 2 caplet/dose	0.5 grams/caplet 2 caplets/dose	2grams/tablet 2 tablets/dose
Required # of Doses/Day for Laxation	1	4	4	
Required # of Caplets/Day for Laxation	5	8	8	
Lower Blood Cholesterol?	Yes	No	Minimal	No
Soluble Fiber/Insoluble Fiber?	70% soluble	100% insoluble	100% soluble	100% insoluble
Active holds water?	Yes	Yes	Yes	No
Active forms a gel?	Yes	Yes	No	No
Active Bulks Stools?	Yes	Yes	Yes	No
Active Traps Bile Acids?	Yes	Inadequate Data	Yes	Inadequate Data
Active is Fermentable?	Partially fermentable	No	No	Yes