

## HIGH FIBER HIGH RESIDUE DIET

### Modification Defined

The high fiber-high residue diet follows the normal dietary pattern except for the inclusion of high fiber, high residue foods. Dietary fiber is defined by Robinson as the seeds, skins, and structural parts of plant foods and the connective tissue fibers of meats. Cellulose, hemi cellulose, lignin, pectin, and inulin are not hydrolyzed by the enzymes in human digestive tract. Residue is defined as the volume of material remaining after the digestive process has been completed.

### Treatment and Rationale

The high fiber-high residue diet is often prescribed for the treatment of constipation, diverticular disease during non-acute phase, colic and irritable colon may respond to moderate increases in fiber. The high fiber-high residue has been suggested. Emphasis should be placed on high fiber breads and cereals such as whole grain, whole wheat products, brown rice, and grain products containing other high fiber foods such as dried fruits. The American Dietetic Association recommends 25 to 30 grams of fiber be consumed daily.

### Special Considerations

The patient placed on this diet should be discouraged from eating an excessive amount of refined, concentrated carbohydrates because they produce an effect similar to the dumping syndrome.

### Dietary Standard

The diet meets the Recommended Dietary Allowance for the healthy adult. The American Dietetic Association recommends 25 to 30 grams of fiber be consumed daily.

### Helpful Hints

1. Special food products are not necessary when preparing this diet.
2. Increase consumption of fiber slowly in order to avoid discomfort.
3. Increase fluids and water consumption if ordered for constipation. Drink 6 – 8 oz. glasses per day.
4. Avoid excessive use of unprocessed bran products due to probability of irritation to the bowel and decreased nutrient absorption.
5. Report to your physician difficulties with flatulence or diarrhea.

### Food Groups that Contain High Fiber

**Cereal:** It is good to start the day with something high in fiber. There are many cereals that have good amounts of fiber in them. To find how much fiber is in a cereal, look at the bottom of the side panel. If the fiber content is not listed, then it is likely very low. A desired amount is 3 grams or more per serving. Some suggestions are:

Frosted Bran (tastes like Frosted Flakes)  
Cracklin' Oat Bran (can also be used a snack by giving it dry)  
Crunchy Corn Bran  
Raisin Bran

You can also crush and sprinkle some of the very high fiber cereals (such as All-Bran, Fiber One, Bran Buds) on your favorite cereal, or mix them into oatmeal.

**Breads:** Not all brown or wheat breads contain high amounts of fiber. They must contain whole grain, bran or have fiber added. Some breads have the fiber content listed on the side. Look for these breads so you will know how much fiber you are receiving.

**Fruits and Vegetables:** There is a great difference in the amount of fiber among the vegetable group. For example, 1/2 cup asparagus has 1 gram of fiber, while an ear of corn has 6 grams. For those who do not eat a great variety of vegetables, try topping them with cheese. When eating mashed potatoes, leave on the skin (as is done in some restaurants) because this will provide more fiber, or switch to baked potatoes with the skin. Although there is some fiber in the fruit, more fiber will be taken if the skin is eaten. Examples of high fiber fruits and vegetables include: artichoke, lima beans, parsnips, green peas, chili peppers, potato skins, dried fruits (such as figs, currants, dates, and prunes), and guava. Prune juice is also recommended because of its laxative qualities. It is recommended to have four or more servings of fruits and vegetables per day.

**Other foods:** There are several foods that have extra fiber. One is a type of granola bar called a FIBER ONE. It has 9 grams of fiber per bar and comes in different flavors. There are many new food products containing added fiber on the market.

If you have been told that irritability, spasms or diverticulosis is a problem with your colon, the following food and drink items tend to stimulate the intestinal tract: NUTS, POPCORN, EXCESSIVE SEEDS, COCONUT, CHOCOLATE, STRONG TEA, COFFEE, CARBONATED BEVERAGES (especially cola drinks), and FRESH CORN.

## References

- 1) Adams, C.F.: Nutrition Value of American Foods in Common Units, Agriculture Handbook No. 456, U.S. Dept. of Agriculture, Washington, D.C.: U.S. Govt. Printing Office, 1978
- 2) Bing, F.C.: Dietary Fiber – in historical perspective. J. Am. Dietet. A. 69:498, 1976.
- 3) Connel, A.M.: Wheat bran as an etiological factor in certain diseases: some recent thoughts, J.Am. Dietet. A. 71:235, 1977.
- 4) Kelsay, J.L.: A review of research on effects of fiber intake on man. Am. J. Clin. Nutri. 31:142, 1978.
- 5) Robinson, C.H., and Lawler, M.R.: Norman and Therapeutic Nutrition. 15<sup>th</sup> ed. New Your: MacMillan Publishing Co., 1977.
- 6) The American Dietetic Association: <http://www.eatright.org/default.aspx>

# Fiber Contents of Foods

FOOD	AMOUNT	GRAMS OF FIBER
<b>CEREALS</b>		
All Bran	1/3 cup	9
Bran Buds	1/3 cup	7.9
Bran Chex	2/3 cup	4.6
Fruitful Bran	2/3 cup	5
Mueslix	1/2 cup	6
Cracklin' Oat Bran	1/2 cup	4
Crunchy Corn Bran	2/3 cup	5.4
Raisin Bran - different types	2/3 cup	4
Oatmeal	3/4 cup	1.6
Cornflakes	2/3 cup	0.2
Kellogg's All-Bran Extra Fiber	1 ounce	14
General Mills Fiber One	1 ounce	12
Kellogg's All-Bran	1 ounce	9
Kellogg's Bran Flakes	1 ounce	4
Post Fruit and Fiber	1 ounce	4
Kellogg's Raisin Bran	1.4 ounces	4
Nabisco Shredded Wheat'n Bran	1 ounce	4
Oatbran	1 ounce	4
General Mills Raisin Nut Bran	1 ounce	3
General Mills Cheerios	1 ounce	2
Post Grape-Nuts	1 ounce	2
General Mills Total	1 ounce	2
General Mills Wheaties	1 ounce	2
<b>BREADS</b>		
Iron Kids	1 slice	2
Wonderkids	1 slice	2
Wonder or Colonial Light white or wheat	1 slice	2
sourdough	1 slice	3
Oat bran pita	1/2 slice	1.8
Raisin	1 slice	1
Oatmeal	1 slice	1
Bagel	1 bagel	0.6

FOOD	AMOUNT	GRAMS OF FIBER
<b>BREAD cont.</b>		
Bran muffin	1 muffin	2.5
Cornbread	2 1/2 in. square	3.4
Pumperknickel	1 slice	1
Rye	1 slice	1
<b>Vegetable, cooked</b>		
Asparagus	1/2 cup	1
Beans, green	1/2 cup	1.6
Peas, green or sweet	1/2 cup	4.5
Carrots, young	1/2 cup	3
Corn	1/2 cup	4.7
Corn, cob	1 medium	5.7
Potato, with skin	1 medium	2.5
Eggplant	1/2 cup	2
Broccoli	1/2 cup	2.2
Brussel sprouts	1/2 cup	2.3
Spinach	1/2 cup	4
Sweet potato	1 medium	3.8
Zucchini	1/2 cup	1.8
<b>Pasta, snacks, and crackers</b>		
Graham crackers	4 squares	0.8
Wheat thins	6 crackers	2
Triscuits	2 crackers	2
Saltines	4 squares	0
Pepperidge Farm Goldfish	1 ounce	1
Pepperidge Farm cracked wheat popcorn	1 cup	2
Tortilla chips	1 ounce	2.5
Corn chips	1 ounce	1
whole wheat pasta	1 cup	5
Spaghetti, cooked	1/2 ounce	1.1
Egg noodles, cooked	1/2 cup	1
Rice, brown, cooked	1/2 cup	1.5
Rice, white, cooked	1/2 cup	0.8

FOOD	AMOUNT	GRAMS OF FIBER
<b>Vegetable, raw</b>		
Avocado	1/2 medium	2
Cabbage	1/2 cup	2
Celery	1 stalk	0.7
Cucumber	1 medium	1
Lettuce, sliced	1 cup	0.9
Carrot	1 medium	2
Tomato	1 medium	1.5
Mushrooms, sliced	1/2 cup	0.9
Bean sprouts	1/2 cup	1
Pickle, dill	1 medium	1
Tomato	2-Jan	1
<b>Fruits</b>		
Apple, with skin	1 medium	3.5
Peach, with skin	1 medium	1.5
Pear, with skin	1 medium	4
Banana	1 medium	3.2
Cantaloupe	1/4 whole	1.5
Cherries, sweet	10	1.2
Raspberries	1/2 cup	4
Strawberries	1/2 cup	1.5
Orange	1 medium	2.5
Tangerine	1 medium	2
Apricot	1 medium	1
Apricots, dried	1/2 cup	8
Plum	1 medium	0.6
Pineapple, fresh	1/2 cup	1.2
Grapes, seedless	1/2 cup	0.7
Grapefruit	1/2 medium	1
Figs, dried	3 1/2 oz	18
Prunes	3 1/2 oz	8
Blackberries	1/2 cup	3
Dates, dried	5	3
Nectarine	1 medium	3
Pineapple	1/2 cup	1

FOOD	AMOUNT	GRAMS OF FIBER
<b>Legumes</b>		
Baked beans	1/2 cup	8.8
Pork and beans	1/2 cup	8
Kidney beans, cooked	1/2 cup	7.3
Pinto beans, cooked	1/2 cup	5.2
Navy beans, cooked	1/2 cup	6
Lima beans, cooked	1/2 cup	4.5
Lentils, cooked	1/2 cup	4
Black-eyed peas, cooked	1/2 cup	8.2
<b>Nuts and seeds</b>		
Almonds	10 nuts	1.1
Sunflowers seeds	2 tablespoons	1
Peanuts	10 nuts	1.4
Peanuts, roasted	1/4 cup	3
Peanut butter, crunchy	2	
tablespoons	1.5	
Walnut pieces	1/4 cup	2