

FIBER-ENHANCED DIET

(Sheet 1 of 2)

NOLENSVILLE FAMILY MEDICINE
JOHN R. THOMPSON M.D.
615-776-8088

PURPOSE:

This diet is designed to emphasize foods rich in dietary fiber as a part of preventive and/or therapeutic nutrition. High-fiber diets may be used in the treatment of irritable bowel syndrome, uncomplicated diverticulosis, and constipation.

DESCRIPTION:

The high fiber diet is based on the Food Guide Pyramid with an emphasis on fiber-rich foods such as fruits, legumes, vegetables, whole-grain breads, and high fiber cereals. The Daily Reference Value for fiber is 25 gm (based on 2000 calorie-per-day diet). The American Diabetes Association has reported that up to 40 gm fiber daily or 25 gm per 1000 Kcal may be beneficial (National Cancer Institute recommends 25 to 30 gm a day). A maximum of 50 gm of fiber per day is suggested.

BASIC INFORMATION:

Dietary fiber is the component found in many foods that cannot be digested by the enzymes in the intestinal tract. Adequate fluid intake is important when following a high-fiber diet due to the water binding capacity of fiber. Fiber should be increased in the diet slowly to avoid unpleasant side effects (gas, abdominal bloating, cramps). Unprocessed wheat bran can increase fiber intake. Its intake should be increased slowly. It can be added to milk, cereal, yogurt, and other recipes and mixes. Dietary fiber can be divided into two separate categories: water-insoluble fiber and water-soluble fiber.

Water-Insoluble Fiber:

Water-insoluble components, such as cellulose, hemicellulose, and lignin, remain essentially unchanged during digestion. Foods containing water-insoluble fiber include the following: fruits, vegetables, cereals, and whole grain products. Research suggests that insoluble fiber may be beneficial in the prevention and/or treatment of constipation and diverticular disease and may decrease the risk of colon cancer.

Water-Soluble Fiber:

Water-soluble fiber, such as gum, pectin, and mucilages, does dissolve in water and is found in oats, beans, barley, and some fruits and vegetables. Some studies show that this type of fiber may improve blood glucose and cholesterol levels and appetite regulation.

NUTRITIONAL ADEQUACY:

The high-fiber diet is adequate in all nutrients. Some studies indicate that excessive consumption of some high-fiber foods may bind and decrease the absorption of the following minerals: calcium, copper, iron, magnesium, selenium, and zinc. However, it is believed that with a varied, well-balanced diet, mineral or nutrient imbalances are unlikely to happen in those consuming a high-fiber diet.

DIETARY FIBER CONTENT OF FOODS IN COMMONLY SERVED PORTIONS

FOOD GROUP	Less than 1 gm	1-1.9 gm	2-2.9 gm	3-3.9 gm	4-4.9 gm	5-5.9 gm	Over 6 gm
Breads 1 slice	bagel, white, French	whole-wheat, flour tortilla	bran muffin	corn tortilla			
Cereals 1 oz	Rice-Krispies, Special K, cornflakes	oatmeal, Nutri-Grain, Cheerios	Wheaties, Shredded- Wheat, Total	Cream of Wheat, Honey-Bran Malt-O-Meal	Bran Chex, 40% Bran- Flakes, Raisin-Bran	Corn Bran	All-Bran, Bran Buds, 100% Bran, Fiber 1
Pasta 1 cup		macaroni, spaghetti		whole-wheat spaghetti			
Rice 1/2 cup	white	brown					
Legumes 1/2 cup cooked				lentils	lima beans, dried peas		kidney beans, baked beans, navy beans

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DIETARY FIBER CONTENT OF FOODS (continued)

FOOD GROUP	Less than 1 gm	1-1.9 gm	2-2.9 gm	3-3.9 gm	4-4.9 gm	5-5.9 gm	Over 6 gm
Vegetables (1/2 cup)	cucumber, lettuce (1 cup), green pepper, mushrooms, onions	asparagus, green beans, cabbage, cauliflower, potato (no skin), celery, sweet potato	broccoli, Brussels sprouts, carrots, corn, potato (with skin), spinach	peas			
Fruits (1 medium unless stated)	grapes (20), watermelon (1 cup), plums (5)	apricots (3), pineapple (1/2 cup), peach with skin, grapefruit (1/2)	apple without skin, banana, orange	apple with skin, pear with skin, raspberries (1/2 cup)			

SAMPLE MENU

Suggested Meal Plan	Suggested Foods and Beverages
BREAKFAST Fruit Juice Cereal Meat/Meat Substitute Bread - Margarine Milk/Beverage	Prune Juice (1/2 cup) All Bran Cereal (1/2 cup) Poached Egg (1) Slice Whole Grain Toast & Margarine/Jam (1 tsp each) 1% Milk (1 cup) & Coffee or Tea
DINNER - NOON OR EVENING MEAL Meat/Meat Substitute Potato/Potato Substitute Vegetable and/or Salad Bread - Margarine Dessert Beverage	Meat Loaf (3 oz) Baked Potato (1) Lima Beans (1/2 cup), Tossed Salad (1 cup)/Dressing (1 Tbsp) Slice Rye Bread & Margarine (1 tsp) Fig Cookies (4) Coffee or Tea
SUPPER - EVENING OR NOON MEAL Soup or Juice Meat/Meat Substitute Vegetable and/or Salad Bread - Margarine Dessert Milk/Beverage	Lentil Soup (1/2 cup) Baked Chicken (3 oz) Banana Squash (1/2 cup), Tossed Salad (1 cup)/Dressing (1 Tbsp) Slice Rye Bread w/Margarine (1 tsp) Baked Apple (1) 1% Milk (1 cup) & Coffee or Tea

Nutrient Analysis

Calories	2039 Kcal	Riboflavin	2.6 mg
Protein	98 gm	Thiamin	1.7 mg
Carbohydrate	275 gm	Folate	394 mcg
Fat	69 gm	Vitamin B6	2.8 mg
Saturated Fat	18 gm	Vitamin B12	6.0 mcg
Monounsaturated Fat	22 gm	Calcium	1046 mg
Polyunsaturated Fat	22 gm	Phosphorus	1742 mg
Cholesterol	373 mg	Zinc	15 mg
Dietary Fiber	45 gm	Iron	23 mg
Vitamin A	1529 IU	Sodium	2820 mg
Vitamin C	100 mg	Potassium	4484 mg
Niacin Equivalents	16 mg		

Adapted from the Southwest Diet Manual 1999