

The Portfolio Diet

The Portfolio diet was developed by Dr. Jenkins out of the University of Toronto. The basic idea behind the diet is quite simple: grouping foods, which have their own cholesterol lowering ability when eaten alone, will have a larger effect when they are eaten together or combined into a “portfolio” as part of a regular diet. The foods which form the foundation of the diet include almonds, as well as foods high in viscous fiber, plant sterols and soy protein.

Recent studies have shown that participants who followed the portfolio diet, even under “real-world conditions,” were able to lower their LDL cholesterol levels by greater than 20% - a percentage comparable to levels achieved by statin drugs in studies of patients under metabolically controlled conditions.

The plan includes the following each day as part of a 2000 calorie diet:

- 30 grams (about one ounce) of **almonds**—about 23 almonds
- 20 grams (less than one ounce) of **viscous fiber** from foods such as oats, barley and certain fruits and vegetables
- 50 grams (1.6 ounces) of **soy protein** from foods such as tofu, soy meat alternatives and soy milk
- 2 grams (.064 ounces) of **plant sterols** from foods

Additions/Modifications:

- *Lots* of **fruits** and **vegetables** – at least 4 servings of each per day
- Avoid red meat. Chicken, fish or turkey are much healthier substitutions.
- *At least* **¼ cup of almonds** per day
- Avoid non-filtered coffee (ex. Espresso) as this type raises cholesterol levels
- 1 – 3 Tbsp of **raw olive oil** per day; olive oil is known to lower LDL or “bad cholesterol”
- Eggplant and okra are encouraged daily as they are excellent sources of viscous fiber
- Avoid frying foods since it adds saturated fats to the meal
- 50mL (about a shot glass full) of **pomegranate juice** (*not* from concentrate, *no* added sugars) per day; preliminary research has shown pomegranate juice to have some cholesterol-lowering ability
- Drink 4 to 5 cups of **green tea** per day; green tea has been shown to lower total cholesterol and raise HDL or “good cholesterol”

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ALMONDS: 30 GRAMS PER DAY AS PART OF A 2,000 CALORIE DIET

Type	Serving size	Grams/milligrams of active ingredient
Whole almonds	1 ounce (about 23)	30 g
Sliced, slivered or ground almonds	1 ounce (about 1/2 cup)	30 g
Almond butter	2 tablespoons	30 g

VISCOUS FIBER: 20 GRAMS PER DAYS AS PART OF A 2,000 CALORIE DIET

Kidney beans	1 cup cooked	6 g
Lima beans	1 cup cooked	5.2 g
Oats	1 cup cooked	4 g
Pinto beans	1 cup cooked	3.8 g
Strawberries	1 cup (about 8)	3.4 g
Broccoli	1 cup	3.2 g
Dried prunes	1/2 cup	3.1 g
Apple	1 large	3 g
Chickpeas	1 cup raw	3 g
Metamucil® Wafers	2 wafers	3 g
Sweet potatoes	1 cup mashed	2.8 g
White beans	1 cup cooked	2.8 g
Barley	1 cup cooked	2.6 g
Metamucil® in powder form	1 tablespoon	2.4 g
Grapefruit	1 medium	2.3 g

Oat bran bread and oat bran cereal can contribute toward the viscous fiber goal as well—compare nutrition labels on packaging to see how much soluble fiber each contains.

PLANT STEROLS: 2 GRAMS PER DAY AS PART OF A 2,000 CALORIE DIET

Benecol® or Take Control® enriched margarine spreads*	1 tablespoon	1.7 g
Avocado	1 small (6 ounces)	132 mg
Corn oil	1 tablespoon	132 mg
Soybeans	1 cup	90 mg
Chickpeas	1/2 cup raw	35 mg
Almonds	1 ounce (about 23)	34 mg
Olive oil	1 tablespoon	30 mg
Vegetable shortening	1 tablespoon	19 mg

Note: 1000 mg = 1 gram

* For best results, do not deep-fry with these spreads, which lose some of their active benefits when they reach their smoke-point.

SOY PROTEIN: 50 GRAMS PER DAY AS PART OF A 2,000 CALORIE DIET

Lightlife® Organic Wild Rice Tempeh	4 ounces (1/2 package)	18 g
Soybeans	5 ounces cooked	12 g
Boca® Chi'k'n Patty	1 patty	11 g
Boca® All American Classic Burger	1 patty	10 g
Firm tofu	1/3 cup	10 g
Veat® Chick'n Free Nuggets	2.6 ounces (1/3 package)	10 g
Pacific Foods® ULTRA Soy Drink, Vanilla	1 cup	8 g
Lifeway Organic Soytreat® Soy Milk	1 cup	6.25 g
Mori-Nu® Silken-Style Tofu	3 ounces (a 1-inch slice)	6 g
Lightlife® Smart Deli turkey	3 slices	5 g

Source: USDA Nutrient Database for Standard Reference – Release 15

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BREAKFAST IDEAS										
IDEA	=	ALMOND COMPONENT	+	VISCOUS FIBER COMPONENT	+	SOY COMPONENT	+	STEROL COMPONENT	+	TASTY ADDITIONS
Hot oatmeal with fruit and almonds	=	Roasted and chopped natural almonds	+	Oatmeal with optional dried prunes or figs	+	Vanilla-flavored soy milk, or an "ultra"-style soy drink for more soy protein	+	(Almonds count as a plant sterol)	+	More dried fruit and a touch of brown sugar and cinnamon
Breakfast muesli	=	Roasted, sliced almonds	+	Rolled oats and oat bran	+	Soy milk	+	(Almonds count as a plant sterol)	+	Dried fruit, fresh fruit, honey
Smoothie	=	Almond butter	+	Strawberries or peaches	+	Vanilla-flavored soy milk	+	(Almond butter counts as a plant sterol)	+	Sliced fruit (with the almonds sprinkled on top)
Tofu scramble and sausage	=	Roasted, sliced almonds	+		+	Scrambled tofu and tofu breakfast links	+		+	

LUNCH IDEAS										
IDEA	=	ALMOND COMPONENT	+	VISCOUS FIBER COMPONENT	+	SOY COMPONENT	+	STEROL COMPONENT	+	TASTY ADDITIONS
A hummus-like dip for vegetables or tortilla crisps	=	Combine almond butter with...	+		+	...plain soy yogurt or silken tofu and...	+	...kidney beans, lima beans, pinto beans or chickpeas and corn oil, and process in the food processor	+	Paprika, cumin
A black-bean burrito	=	Roasted and chopped natural almonds	+	Black beans and pearl barley	+	Soy cheese	+	Avocado (beans and almonds count as well)	+	Salsa
A black-eyed pea salad	=	Roasted and sliced almonds	+	Black-eyed peas (or other beans)	+	Soy ham and soy cheese	+	Avocado (beans and almonds count as well)	+	Red onion, grape tomatoes, a light vinaigrette
A green salad	=	Roasted and chopped natural almonds	+	Pinto beans or other beans	+	Firm tofu, cubed	+	Corn oil vinaigrette (beans and almonds count as well)	+	Favorite lettuce and other vegetables
"Hamburger" soup with lentils and vegetables	=	Roasted, slivered almonds on top	+	Lentils, eggplant	+	Soy grounds	+	(Almonds and lentils count as plant sterols)	+	Vegetable or beef broth, celery and carrots
DINNER IDEAS										
A starter plate (choose any or all)	=	Roasted, seasoned almonds	+	Bean dip	+	Edamame or soy chicken-style nuggets	+	(Bean dip counts as a plant sterol)	+	Pitas or baked chips for the bean dip
Side dish of pearl barley and broccoli with almonds	=	Roasted and slivered almonds	+	Pearl barley and broccoli	+	Serve with a meatless soy product as an entrée	+	Corn oil	+	Broth and herbs, plus a green vegetable as another side
Side dish of almond-bean puree	=	Roasted and ground almonds	+	Beans	+	Serve with a meatless soy product as an entrée	+	Corn oil	+	Broth, garlic, herbs, plus a green vegetable as another side
"Chicken" burger	=	Almond butter	+		+	A meatless soy chicken patty, plus soy cheese	+	Avocado	+	Tomato, sprouts, mustard, whole grain bun
Stir-fry	=	Roasted, slivered almonds	+	Eggplant (and could serve on pearl barley instead of rice)	+	Firm tofu	+	Corn oil	+	Red bell pepper, bok choy
Chili	=	Roasted and ground almonds	+	Pinto beans and wheat germ	+	Serve over a soy hot dog, or include soy grounds	+	(Beans count as a plant sterol)	+	Tomatoes, other vegetables, chili powder and other seasonings
DESSERT IDEAS										
Soy yogurt parfait	=	Roasted and slivered almonds	+		+	Soy yogurt or soy "ice cream"	+		+	Fruit
Chocolate-almond ice milk	=	Roasted sliced almonds	+		+	Chocolate soy milk, frozen in an ice cream maker	+		+	

Reference: Jenkins DJ et al. Assessment of the longer term effects of a dietary portfolio of cholesterol-lowering foods in hypercholesterolemia. The American Journal of Clinical Nutrition. March 2006;83(3):582-91.

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TAKE-ALONG SNACKS

Almonds:

- A handful of roasted natural almonds, seasoned or plain
- An almond butter and jelly sandwich

Viscous Fiber:

- Metamucil® powder in a drink
- Metamucil® Wafers
- Dried prunes or figs
- A wheat germ muffin
- A grapefruit or orange

Soy:

- Soy cheese
- Soy yogurt

Sterols:

- See "Almonds"
- A crusty roll with Benecol® or Take Control®
- Half an avocado dressed lightly with vinaigrette

Further information and recipes can be obtained from the following websites:

The Portfolio Eating Plan <http://www.portfolioeatingplan.com>

The World's Healthiest Foods <http://www.whfoods.com>

Yours in health,

Dr. Bobby Parmar, BAsC., ND