#### **Pennington Nutrition Series** Healthier lives through education in nutrition and preventive medicine



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# DIETARY APPROACH TO WEIGHT LOSS

Body Mass Index (BMI) is a way to define overweight and obesity. The index is a mathematical formula in which a person's body weight in kilograms is divided by the square of his or her height in meters [kg/m<sup>2</sup>]. The BMI is more highly correlated with body fat than any other mathematical ratio of height and weight; however, athletes and individuals with a high percentage of muscle may have a BMI in the overweight range because of the higher density of muscle compared to fat.

- A BMI of 18 to 25 is considered normal weight. Individuals with a BMI of 25 to 29.9 are considered overweight, and those with a BMI of 30 or more are considered obese.
- Overweight is defined as increased weight in relation to height.
- Obesity is defined as an excessively high amount of body fat or adipose tissue in relation to lean body mass.

The distribution of body fat is important from a chronic disease perspective. Those who have more body fat in the abdominal area have an increased risk for elevated triglycerides, high blood pressure and glucose intolerance. Waist circumference correlates well with chronic disease risk. A waist circumference of 40 inches (102 cm) or more in men or a waist circumference of 35 inches (88cm) or more in women puts one at greater risk of insulin resistance and the chronic diseases associated with it.

When someone is a few pounds overweight and is motivated to lose weight, there are safe and effective methods to lose a few pounds and to maintain a weight loss.



# 1 Dieting with the Exchange Diet

An exchange diet breaks food down into six categories: starch/bread, meat, vegetables, fruit, milk, and fat. The exchange diet was created by the American Dietetic Association and the American Diabetes Association as a treatment of diabetes and other chronic diseases. It also works well for use in weight management. It is a balanced system, with foods from each group, and can be followed indefinitely. The diet is an easy way to monitor intake of carbohydrates, fat and protein as well as portion sizes.

#### How to use the exchange plan:

The number of exchanges per day is determined by the number of calories needed in the diet. It is different for each person and depends on height, weight and the amount of energy expended. The table shows a basic diet composition using the exchange system. The most accurate way to determine the number of exchanges needed is with the help of a registered dietitian, health professional or a trained fitness professional.

#### Exchanges For Various Calorie Levels

Calories/day	1200	1400	1500	1600	1700	1800	2000	2100	2200
Meat	4	4	5	6	6	6	6	6	6
Bread/starch	5	7	7	7	8	9	10	11	11
Vegetables	2	3	4	2	2	2	2	2	3
Fats	3	3	3	3	3	4	4	5	5
Fruit	3	3	3	3	3	3	3	3	4
Skim milk (cups)	2	2	2	-	-	-	-	-	-
2% milk	-	-	-	2	2	2	2	2	3



## Example of a daily exchange diet:

### 1800 Calories

Breakfast	
2 Fruit	1 cup orange juice
2 Bread	2 slices of toast
1 Meat	1 hard-cooked egg
2 Fat	2 tsp margarine
1 Milk	1 cup ½% milk
Free food	coffee or tea

#### Lunch

1/2 cup tuna
2 slices whole wheat bread
1/2 cup tomato slices
Lettuce/cucumber salad
1 cup sliced peaches
2 tsp margarine
Tea with lemon

#### Dinner

3 Meat	3 oz baked chicken
2 Bread	1/2 cup mashed potato
	1 small whole-grain roll
1 Vegetable	1/2 cup broccoli
	1/2 cup carrots
Raw vegetable	tossed salad
2 Fat	1 tbsp salad dressing
	1 tsp margarine
Free foods	Coffee

## Evening Snack

i bieau	2 granam crackers
1 Milk	1 cup 1⁄2% milk

For more information about the Exchange diet, contact: http://www.diabetes.org/home.jsp

# 2 Dieting using calorie control portions

Meal Replacement Plan. The rationale behind this plan is the use of a liquid formula or a packaged item with a fixed number of calories to replace a meal. This takes the guesswork out of meal planning, and the person can be assured not to take in too many calories. By controlling portion sizes, fat and carbohydrate, a person can control calories.

The replacement items are balanced and contain a mix of protein, carbohydrate and fat as well as other nutrients. Four different types of meal replacements are available: powder mixes, shakes, bars and prepackaged meals like TV dinners. The usual plan is to use a meal replacement for one or two meals a day while having sensible meals that combine lean meat, starch, vegetables and fruit for the other meals during the day. An intake of five fruits and vegetables is recommended. A meal replacement program is more effective for losing weight than a conventional, structured weight loss diet. Meal replacements offer a convenient, nutritionally balanced weight loss alternative to conventionally structured weight loss diets.

### A meal replacement plan

Breakfast	Meal replacement
Lunch	Sensible meal or meal replacement
Dinner	Sensible meal
Snacks	Fruit, vegetables, fat-free yogurt or cheese, nuts, pretzels or air-popped popcorn



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Pub. 2912-D (20M) 3/06

Issued in furtherance of Cooperative Extension work, Acts of Congress of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. The Louisiana Cooperative Extension Service provides equal opportunities in programs and employment.



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