# Planning A Healthy Diet:

# Principles And Guidelines

# Food Labels


**Course Name: Clinical Nutrition**

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# Healthy Eating Plan

**Reference:**https://www.nhlbi.nih.gov/health/educational/lose_wt/eat/calories.htm

A healthy eating plan gives your body the nutrients it needs every day while staying within your daily calorie goal for weight loss. A healthy eating plan also will lower your risk for heart disease and other health conditions.

**A healthy eating plan:**

- Emphasizes vegetables, fruits, whole grains, and fat-free or low-fat dairy products
- Includes lean meats, poultry, fish, beans, eggs, and nuts
- Limits saturated and *trans* fats, sodium, and added sugars
- Controls portion sizes

# Aim for a Healthy Weight
# Keep an Eye on Portion Size

- Nutrition recommendations use standard serving sizes so people can know how much of different types of foods they should eat to get the nutrients they need.
- Although you can't always control the food portions served to you in restaurants and other places, you can control how much of the portion you eat.
- The amount you eat or drink plays an important role in whether you maintain a healthy weight.
- You may be eating more than you realize.

# What is the difference between a portion and a serving size?


**Portion**

A portion is the amount of food that you choose to eat for a meal or snack. It can be big or small— you decide.

**Serving**

A "serving" is a measured amount of food or drink, such as one slice of bread or 1 cup of milk. (given in gm/weight)

**Recommended Amounts**

It recommends the right mix and amount of food for you.

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Some foods that most people consume in one portion actually contain multiple servings (e.g., a 20-ounce soda or 3-ounce bag of chips).

# Bagel

**20 Years Ago**

3-inch diameter
140 calories

**Today**

??? calories

A bagel 20 years ago was 3 inches in diameter and had 140 calories. How many calories do you think are in today's bagel?

○ 350 ○ 250 ○ 150

Answer: 350kCal

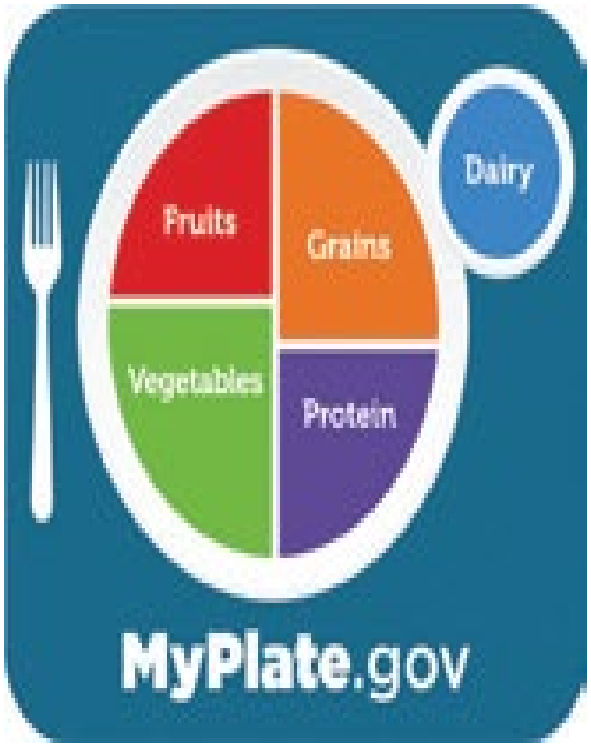
# Try the MyPlate Plan

https://www.myplate.gov/

- Over time. It's important to eat a variety of fruits, vegetables, grains, dairy or fortified soy alternatives, and protein foods. When deciding what to eat or drink, choose options that are full of nutrients. Make every bite count.

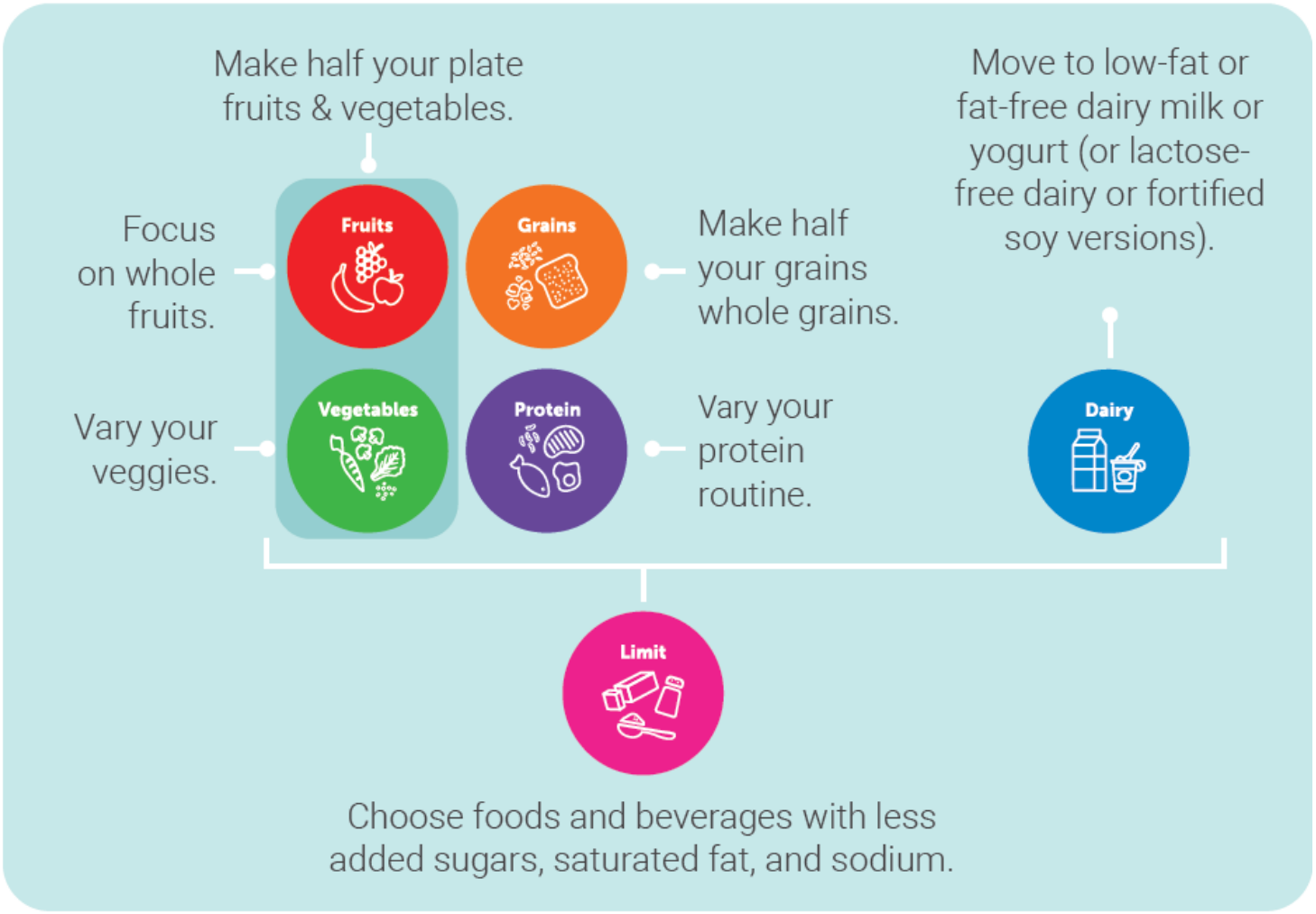
→ Nutrient density

- To learn what the right amounts are for you, try the personalized [https://www.myplate.gov/myplate-plan](https://www.myplate.gov/myplate-plan)




- Based on decades of solid science, MyPlate advice can help you day to day and over time.

# Think about how the following recommendations can come together over the course of your day or week to help you create a healthy eating routine:



# Estimated Daily kCalorie Needs for Adults

| | Sedentary[a] | Active[b] |
|---|---|---|
| **Women** | | |
| 19–30 yr | 1900 | 2400 |
| 31–50 yr | 1800 | 2200 |
| 51+ yr | 1600 | 2100 |
| **Men** | | |
| 19–30 yr | 2500 | 3000 |
| 31–50 yr | 2300 | 2900 |
| 51+ yr | 2100 | 2600 |



a. Sedentary describes a lifestyle that includes only the activities typical of day-to-day life.
b. Active describes a lifestyle that includes physical activity equivalent to walking more than 3 miles per day at a rate of 3 to 4 miles per hour, in addition to the activities typical of day-to-day life.

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NOTE: kCalorie values reflect the midpoint of the range appropriate for age and gender, but within each group, older adults may need fewer kcalories and younger adults may need more.
In addition to gender, age, and activity level, energy needs vary with height and weight

# USDA Food Patterns: Recommended Daily Amounts from Each Food Group

| | 1600 kcal | 1800 kcal | 2000 kcal | 2200 kcal | 2400 kcal | 2600 kcal | 2800 kcal | 3000 kcal |
|---|---|---|---|---|---|---|---|---|
| Fruits | 1½ c | 1½ c | 2 c | 2 c | 2 c | 2 c | 2½ c | 2½ c |
| Vegetables | 2 c | 2½ c | 2½ c | 3 c | 3 c | 3½ c | 3½ c | 4 c |
| Grains | 5 oz | 6 oz | 6 oz | 7 oz | 8 oz | 9 oz | 10 oz | 10 oz |
| Protein foods | 5 oz | 5 oz | 5½ oz | 6 oz | 6½ oz | 6½ oz | 7 oz | 7 oz |
| Milk and milk products | 3 c | 3 c | 3 c | 3 c | 3 c | 3 c | 3 c | 3 c |
| Oils | 5 tsp | 5 tsp | 6 tsp | 6 tsp | 7 tsp | 8 tsp | 8 tsp | 10 tsp |
| Discretionary kcalories | 121 kcal | 161 kcal | 258 kcal | 266 kcal | 330 kcal | 362 kcal | 395 kcal | 459 kcal |

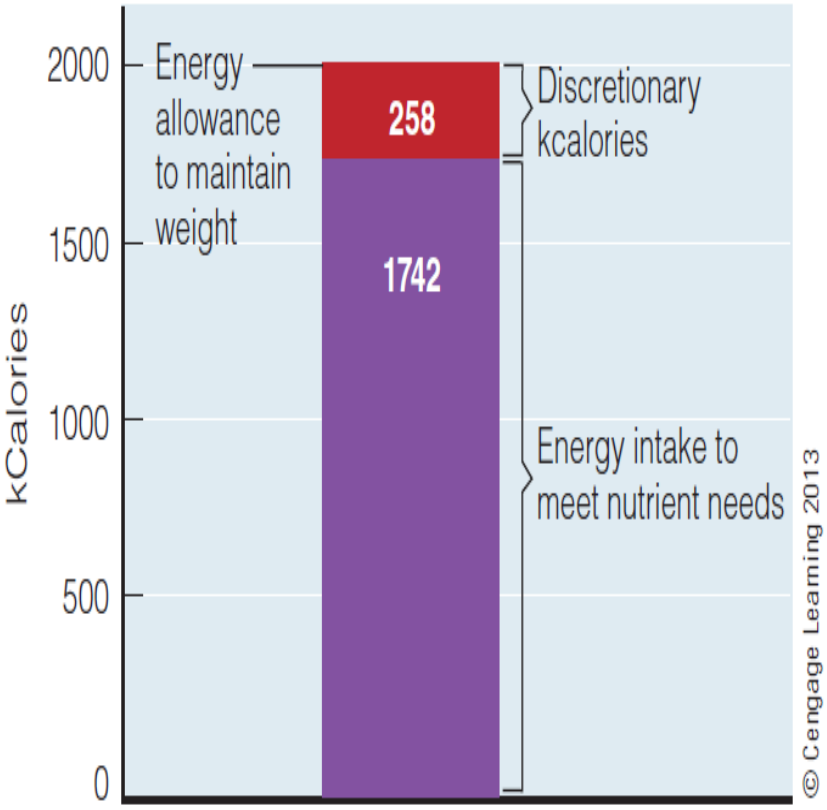


**Discretionary kcalories:** the kcalories remaining in a person's energy allowance after consuming enough nutrient-dense foods to meet all nutrient needs for a day.

# Discretionary kCalories in a 2000-kCalorie Diet

For quick and easy estimates, visualize each portion as being about the size of a common object:

- 1 c fruit or vegetables = a baseball
- ¼ c dried fruit or nuts = a golf ball
- 3 oz meat = a deck of cards
- 2 tbs peanut butter = a ping pong ball
- 1 oz cheese = 4 stacked dice
- ½ c ice cream = a racquetball
- 4 small cookies = 4 poker chips



# Food Labels

- Food labels appear on virtually all packaged foods, and posters or brochures provide similar nutrition information for fresh meats, fruits, and vegetables.

- A few foods **need not carry nutrition labels**, those contributing few nutrients, such as plain coffee, tea, and spices; those produced by small businesses; and those prepared and sold in the same establishment.

# Food Labels (Continued)

- Restaurants with 20 or more locations must provide menu listings of an item's kcalories, grams of saturated fat, and milligrams of sodium.

- When ordering such items, keep in mind that restaurants tend to serve extra-large portions—two to three times standard serving sizes.

- Example, A "low-fat" ice cream may have only 3 grams of fat per ½ cup, but you may be served 2 cups for a total of 12 grams of fat and all their accompanying kcalories.

# The Ingredient List

- *All packaged foods must list all ingredients*— Including additives used to preserve or enhance foods, such as vitamins and minerals added to enrich or fortify products.

- The ingredients are listed on the label in descending order of predominance by **weight**.

- Knowing that the first ingredient predominates by weight, consumers can glean much information.

# The Ingredient List (continued)

***Compare these products, for example:***

- A beverage powder that contains "sugar, citric acid, natural flavors . . ." versus a juice that contains "water, tomato concentrate, concentrated juices of carrots, celery . . ."

- A cereal that contains "puffed milled corn, sugar, corn syrup, molasses, salt . . ." versus one that contains "100 percent rolled oats"...

- A canned fruit that contains "sugar, apples, water" versus one that contains simply "apples, water"

# Nutrition Facts Panel

A.Serving Sizes.

B.Nutrient Quantities.

C.The Daily Values.

# A. Serving Sizes

- The Food and Drug Administration (FDA) has established specific serving sizes for various foods and requires that all labels for a given product use the same serving size.

- This facilitates comparison shopping.

→Consumers can see at a glance which brand has more or fewer kcalories or grams of fat, for example.

- Standard serving sizes are expressed in both common **household measures**, such as cups, and **metric measures**, such as milliliters, to accommodate users of both types of measures.

# A. Serving Sizes (continued)

- When examining the nutrition facts on a food label, consumers need to compare the serving size on the label with how much they actually eat and adjust their calculations accordingly.

- Be aware that serving sizes on food labels are not always the same as those of the USDA Food Patterns.

# B. Nutrient Quantities

- The FDA requires that the Nutrition Facts panel on food labels present nutrient information in two ways—in ***quantities*** (such as grams) and as ***percentages*** of standards called the **DAILY VALUES.**

# B. Nutrient Quantities (continued)

The Nutrition Facts panel must provide the nutrient amount, **percent Daily Value, or both for the following:**

- Total food energy (kcalories)
- Food energy from fat (kcalories)
- Total fat (grams and percent Daily Value)
- Saturated fat (grams and percent Daily Value)
- *Trans fat (grams)*
- Cholesterol (milligrams and percent Daily Value)
- Sodium (milligrams and percent Daily Value)
- Total carbohydrate, which includes starch, sugar, and fiber (grams and percent Daily Value)
- Dietary fiber (grams and percent Daily Value)
- Sugars, which includes both those naturally present in and those added to the food (grams)
- Protein (grams)

# B. Nutrient Quantities (continued)

The labels must also present nutrient content information as a percent Daily Value for the following vitamins and minerals:

- Vitamin A
- Vitamin C
- Iron
- Calcium

# C. The Daily Values.

- Food labels list the amount of some nutrients in a product as a percentage of its Daily Value, which **makes the numbers more meaningful to consumers**.

- The Daily Values **reflect dietary recommendations** for nutrients and dietary components that have important relationships with health.

- The "% Daily Value" column on a label provides a ballpark estimate of how individual foods contribute to the total diet. It compares key nutrients in a serving of food with the goals of a person consuming **2000 kcalories per day**.

# How To Calculate Personal Daily Values??

- The Daily Values on food labels are designed for a 2000-kcalorie intake, but you can calculate a personal set of Daily Values based on your energy allowance.

- Consider a 1500-kcalorie intake, for example. To calculate a daily goal for fat, multiply energy intake by 30 percent:

→ 1500 kcal × 0.30 kcal from fat = 450 kcal from fat

# (continued)

- The “kcalories from fat” are listed on food labels, so you can add all the “kcalories from fat” values for a day, using 450 as an upper limit. A person who prefers to count grams of fat can divide this 450 kcalories from fat by 9 kcalories per gram to determine the goal in grams:

→ 450 kcal from fat ÷ 9 kcal/g = 50 g fat

# (continued)

- Alternatively, a person can calculate that 1500 kcalories is 75 percent of the 2000-kcalorie intake used for Daily Values:

→ 1500 kcal ÷ 2000 kcal = 0.75

→0.75 × 100 = 75%

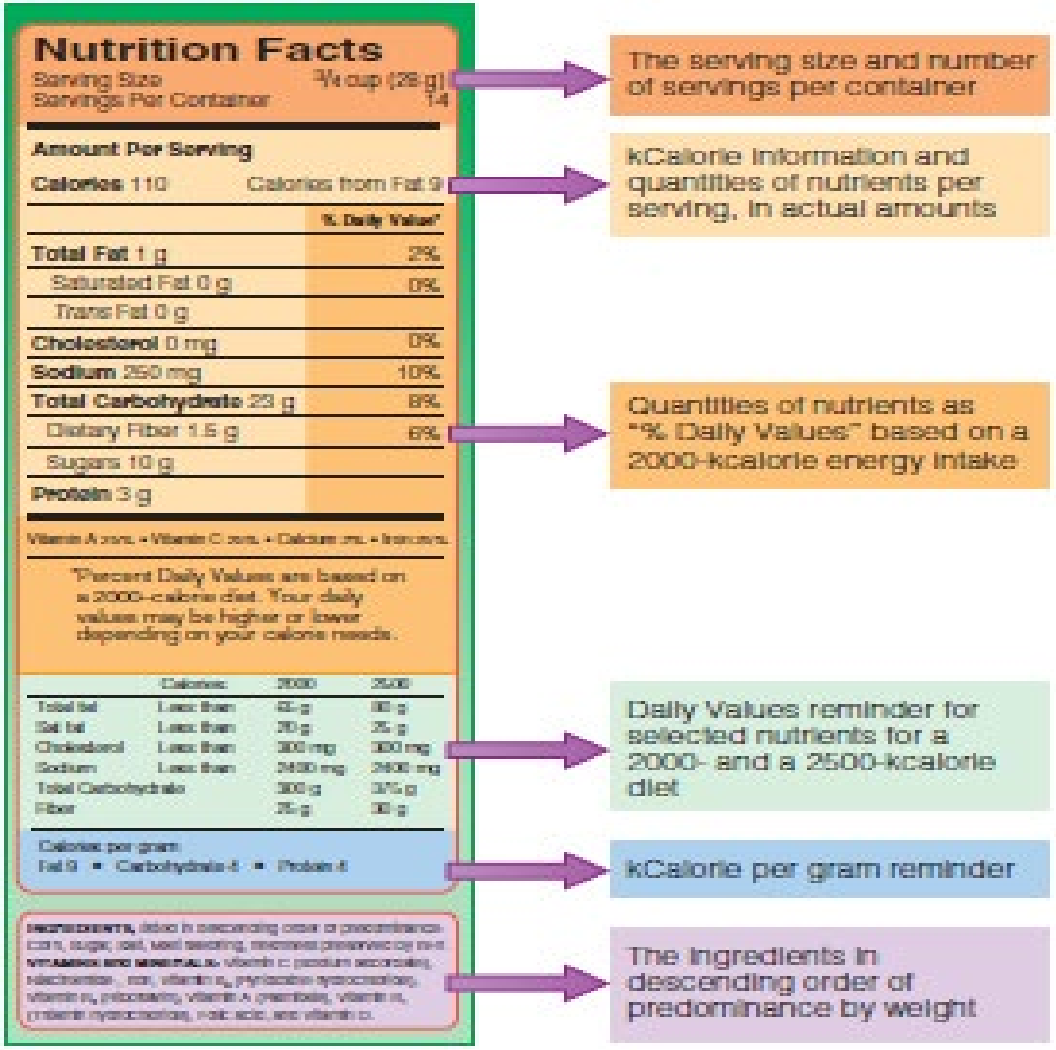
*Then, instead of trying to achieve 100 percent of the Daily Value, a person consuming 1500 kcalories will aim for 75 percent.*

# (continued)

Similarly, a person consuming 2800 kcalories would aim for 140 percent:

→ 2800 kcal ÷ 2000 kcal = 1.40 or 140%

# Example of a Food Label



# CLAIMS ON LABELS

A. Nutrient Claims.

B. Health Claims.

C. Structure-Function Claims.

# A. Nutrient Claims

- Have you noticed phrases such as “good source of fiber” on a box of cereal or “rich in calcium” on a package of cheese?

- These and other **nutrient claims may be used on labels so long as they meet FDA definitions, which** include the conditions under which each term can be used.

- The accompanying glossary defines nutrient terms on food labels, including criteria for foods described as “low,” “reduced,” and “free.” When nutrients have been added to enriched or fortified products, they must appear in the ingredients list.

# (continued)

- Some descriptions *imply that a food contains, or does not contain, a nutrient*.

- Implied claims are prohibited unless they meet specified criteria.

- For example, a claim that a product **“contains no oil”** *implies that the food contains no fat*. *If the* product is truly fat-free, then it may make the no-oil claim, but if it contains another source of fat, such as **butter**, it may not.

# B. Health Claims

- **Health claims** describe a relationship between a food (or food component) and a disease or health-related condition. In some cases, the FDA authorizes health claims based on an **extensive review of the scientific literature.**

- In cases where there is emerging—but not established—evidence for a relationship between a food or food component and disease, the FDA allows the use of *qualified health claims that must use specific* language indicating that the evidence supporting the claim is limited.

# C. Structure-Function Claims

- Unlike health claims, which require food manufacturers to collect scientific evidence and petition the FDA, **structure-function claims can be made without any FDA approval.**

- Product labels can claim to “slow aging,” “improve memory,” and “build strong bones” without any proof.

- Unfortunately, structure-function claims can be deceptively similar to health claims, and most consumers do not distinguish between these two types of claims.

(continued)

**Consider these statements:**

- “May reduce the risk of heart disease”
- “Promotes a healthy heart”

The first is a health claim that requires FDA approval and the second is an unproven, but legal, structure-function claim.

# Label Claims


**Nutrient claims** characterize the level of a nutrient in the food—for example, "fat free" or "less sodium."


**Health claims** characterize the relationship of a food or food component to a disease or health-related condition—for example, "soluble fiber from oatmeal daily in a diet low in saturated fat and cholesterol may reduce the risk of heart disease" or "a diet low in total fat may reduce the risk of some cancers."


**Structure/function claims** describe the effect that a substance has on the structure or function of the body and do not make reference to a disease—for example, "supports immunity and digestive health" or "calcium builds strong bones."