

3

Eating for Optimal Health and Fitness



In this chapter you will learn about:

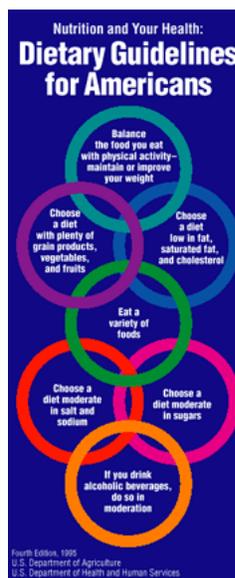
- ◆ Guidelines for choosing a healthy diet.
- ◆ The Food Guide Pyramid.
- ◆ Making wise food choices when eating away from home or between meals.
- ◆ Vegetarian diets.

You have heard the saying “You are what you eat”. That is because what you eat makes a difference in how you perform, how you feel, and affects your long-term health. This chapter provides information on how to follow healthy dietary practices whether you are eating at home, in a galley, or at a restaurant.

Dietary Guidelines for Americans

The US Department of Agriculture (USDA) and the Department of Health and Human Services (DHHS) prepared Dietary Guidelines for all Americans 2 years of age and older. (<http://www.nal.usda.gov/fnic/dga>). The seven guidelines are:

1. Eat a variety of foods.
2. Balance the food you eat with physical activity -- maintain or improve your weight.
3. Choose a diet with plenty of grain products, vegetables, and fruits.
4. Choose a diet low in fat, saturated fat and cholesterol.
5. Choose a diet moderate in sugars.
6. Choose a diet moderate in salt and sodium.
7. If you drink alcoholic beverages, do so in moderation.

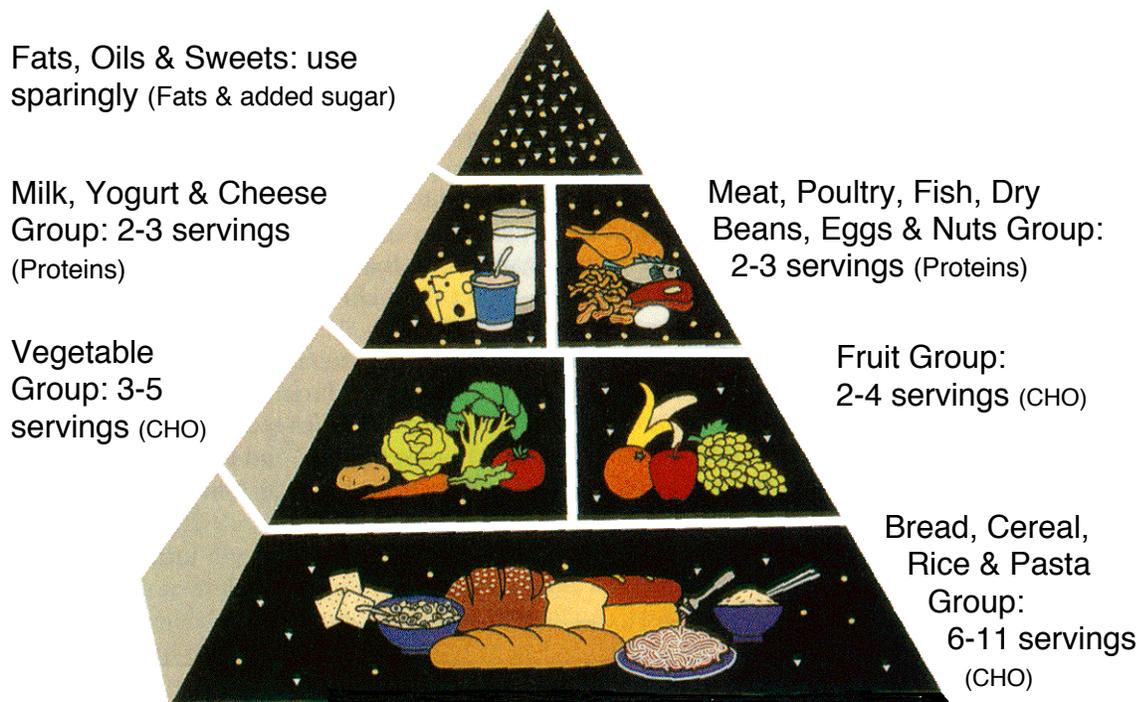


For more specific guidance on food selection, the USDA and the DHHS developed the food guide pyramid in [Figure 3-1](#).

The Food Guide Pyramid

You must have noticed the food guide pyramid on food labels. The USDA and the DHHS designed this pyramid to be a flexible dietary guide for Americans. Each compartment contains a different food group and the recommended number of servings that should be consumed daily. The primary macronutrient (see [Chapter 2](#)) found in each food group is written in parenthesis. See [Figure 3-1](#).

Figure 3-1. Food Guide Pyramid



Although this Food Guide Pyramid can be found on most food labels, many people are still unsure how to use its information. The most common questions concern both the size of a serving and how many servings should be eaten. Often people overestimate the size of a serving, thereby eating more kcals than they anticipated. [Table 3-1](#) and [Table 3-2](#) help answer questions about serving sizes. [Table 3-1](#) gives an estimate of the amount of food per serving for each food group, and [Table 3-2](#) lists the number of servings required from each food group to meet the total daily kcals shown in the left column. Using your Estimated Energy Requirements (EER) calculated in [Chapter 1](#) as your daily kcals, find the number of servings per food group that best fit your caloric requirement.

Table 3-1. Portion Sizes Equivalent to a Serving

Food Group	Serving Size
Bread, Cereal, Rice, Pasta & Grains	1 slice of bread, 1/2 cup cooked rice or pasta, 1 oz.* breakfast cereal, 1/2 bagel.
Vegetables	1 cup leafy vegetables, 1/2 cup raw or cooked vegetable, 3/4 cup vegetable juice.
Fruits	1 medium size fruit, 1/2 cup canned fruit, 3/4 cup of 100% fruit juice, 1/4 cup dried fruit.
Milk, Yogurt, & Cheese	1 cup milk or yogurt, 2 oz. cheese.
Meat, Poultry, Fish, Dry Beans, Eggs, Nuts	3 oz. lean meat, poultry, fish, 1 egg, 2 Tbsp* peanut butter, 1/2 cup cooked beans.
Fats, Oils, Sweets	1 tsp* oil, 1 pat of butter, 1 Tbsp salad dressing or sour cream (equivalent to 45 kcals).

*oz. = ounces, Tbsp. = tablespoon, tsp = teaspoon.

Table 3-2. Suggested Servings Based on Total Daily Caloric Intake

Total Daily Kcals	NUMBER OF SERVINGS PER FOOD GROUP					
	Bread	Vegetables	Fruits	Meats	Milk	Fat grams
1,400	6	4	3	2	2	<47
1,600	7	5	4	2	2	≤53
1,800	8	5	4	2	3	≤60
2,000	10	5	4	2	3	≤67
2,200	11	5	4	3	3	≤73
2,400	12	6	5	3	3	≤80
3,000	15	6	6	3	3	≤100

Adapted from *Navy Nutrition and Weight Control Self-Study Guide*, NAVPERS 15602A 1996, p. 44.

5-A-Day

You may have heard of the national campaign to increase the amount of fruits and vegetables eaten by all Americans. This campaign, called “5-a-Day” has been adopted by all military services. Its purpose is to encourage people to eat at least five servings of fruits and vegetables each day. Following this program can add needed vitamins and minerals to your daily food intake; cut your risk of heart disease, cancer and digestive diseases; help control cholesterol; prevent constipation; and can help manage your body weight and percent body fat. Additionally, many fruits and vegetables contain “antioxidants” (see the [Glossary](#)) and other nutrients that are beneficial to your health. Ideas to help you incorporate more fruits and vegetables in your diet can be found in [Appendix A](#).



Food Labels

To fully understand and use the information in the Food Guide Pyramid you need to understand how to read the nutrition labels on foods. An example of a food label is shown in [Figure 3-2](#).

Figure 3-2. How to Read a Food Label

Serving size reflects the typical amount of the food that many people eat.

The list of nutrients displays the amount in one serving of the food.

Ingredients are listed from the most to the least abundant items found in the food.

Amount Per Serving	
Calories	100
Calories from Fat 20	
% Daily Value*	
Total Fat	2.5g
Saturated Fat	1.5g
Cholesterol	10mg
Sodium	130mg
Total Carbohydrate	12g
Dietary Fiber	0g
Sugars	11g
Protein	8g
Vitamin A	10%
Calcium	30%
Vitamin C	4%
Iron	0%
Vitamin D	25%

Ingredients: Lowfat milk, Vitamin A palmitate, Vitamin D₃

The % Daily Values are based on a 2,000 kcal diet. Use the number to compare the amount of nutrients found in various foods.

Percentage of the daily vitamin and mineral recommendation that is met in one serving of the food.

Selecting Nutrient-Dense Foods

Foods that contain the most nutrients in the fewest kcals are called **nutrient-dense foods**. Now that you know the number of kcals each macronutrient provides and the importance of the micronutrients, can you select foods that provide many nutrients without consuming too many kcals? Let us equate this concept to bargain shopping. If you have \$10 and you need to buy several toiletries, you will buy the products that cost the least money yet still meet your needs. The same should be true with respect to the amount of kcals in the foods you eat. For an example look at the nutritional content of skim milk and whole milk.

	Skim Milk	Whole Milk
Total kcal	85	157
grams CHO	12	11
grams proteins	8	8
grams fat	0	9
mg Calcium	303	290



Skim milk and whole milk contain the same amounts of proteins, CHO, and calcium; however, skim milk has less total kcals and less fat than the whole milk. Therefore, you can drink two glasses of skim milk for the same amount of kcals as 1 glass of whole milk, yet you will get twice the proteins, CHO, and calcium.

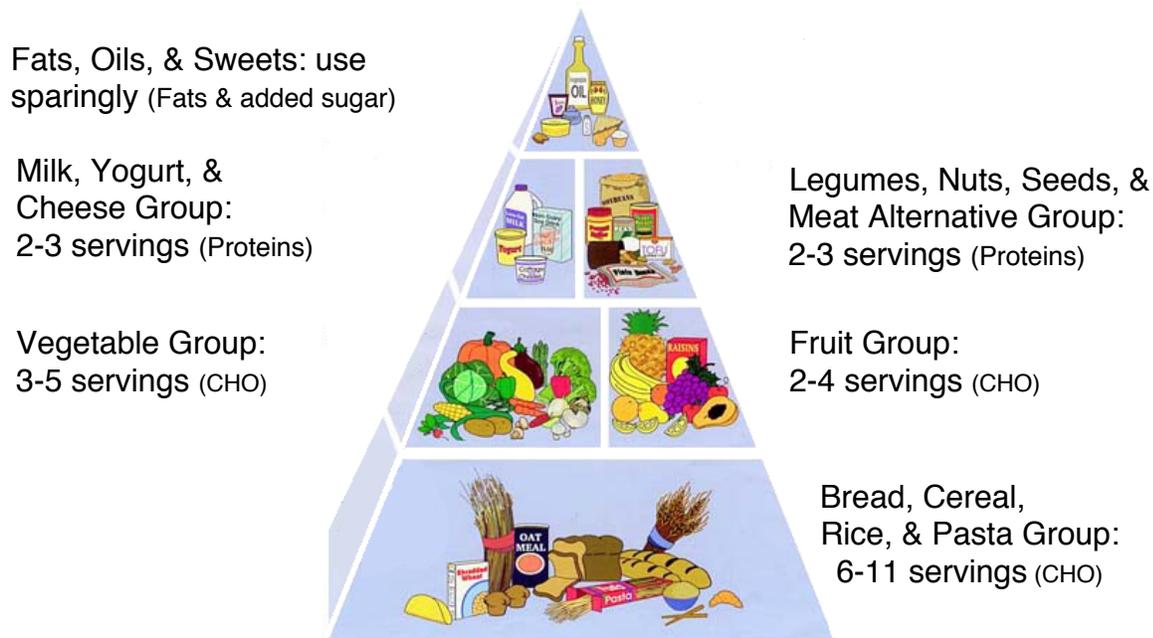
The goal of selecting nutrient-dense foods is not to avoid fat grams, but rather to select foods that contain the essential macro- and micronutrients without eating an overabundance of kcals.

Vegetarian Diets

The popularity of vegetarian diets has increased in recent years. One reason, aside from religious or social beliefs, is that vegetarian diets have been linked to lower risks for several diseases, including heart disease, high blood pressure, and diabetes. There are many different types of vegetarian diets. The similarities among them lie in their emphasis on grains, vegetables, fruits, beans, and nuts to obtain the necessary macronutrients. The vegan diet is the strictest of the vegetarian diets since it contains no animal products. The lacto-ovo-vegetarian diet contains both dairy products and eggs in addition to the above foods. Even within these two types of diets, there is considerable variation based on food choices. The main concern

people have when deciding whether they would like to try a vegetarian diet is whether the diets will meet their vitamins, minerals, and proteins needs. Both protein and micronutrient intake is adequate among vegetarians as long as they eat a variety of foods. Vegetarians who limit or omit animal products from their diets may need to take Vitamin B₁₂ and calcium supplements. A well-rounded vegetarian diet follows the US dietary guidelines and can meet the nutritional needs of adults, children, competitive athletes, and pregnant women (see [Figure 3-3](#)).

Figure 3-3. Food Guide Pyramid for Vegetarians



Adapted from the Vegsource organization web site at: <http://vegsource.com/nutrition/pyramid.jpg>

Eating Out

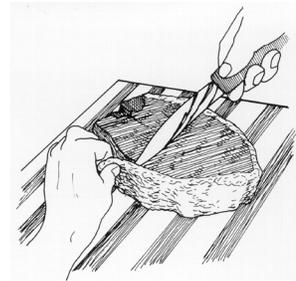
On many occasions you may find yourself eating away from home. If good food choices are made, it is possible to follow the dietary guidelines when dining out. It is likely that many of you eat five or more meals per week away from home. Learning to “eat out” is a very important aspect of optimizing your health, fitness, and performance.



*On average,
Americans eat 1 of 3
meals away from
home each day.*

Tips for Healthy Eating in Restaurants

- ◆ Order foods high in complex CHO (see [Chapter 2, page 8](#)).
- ◆ Choose foods described as baked, broiled, steamed, poached, smoked, roasted, grilled, flame-cooked, and marinara.
- ◆ Order green salads, plain potatoes and rice. Ask for any condiments, such as salad dressings, gravy, cheese, croutons and sour cream “on the side;” use only a portion of what is served.
- ◆ Order dessert after you have eaten your main course only if you are still hungry. Select sorbet, sherbet, frozen yogurt, ice milk, fruit, or angel food cake.
- ◆ Trim all visible fat off the meat.
- ◆ Limit portions of margarine, butter and sour cream.
- ◆ Eat plain rolls, breadsticks or crackers rather than biscuits, chips or nuts as an appetizer. Or ask for your salad to be served as your appetizer.
- ◆ Avoid foods described as fried, breaded, battered, flaky, crispy, creamy, au gratin, puffed, loaded, and tempura. Also, avoid hollandaise and bearnaise sauces.
- ◆ Limit alcohol consumption.

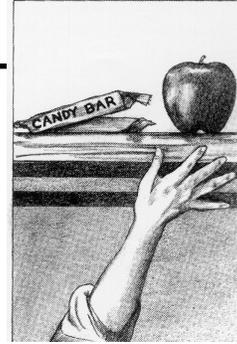


Fast Food Restaurants

Although you are not encouraged to get your meals from fast food establishments, fast foods are a way of life. If you learn to select the foods with the most nutritional value then fast foods can be OK. Most restaurants have a listing of the nutritional content of their foods and are available on request. More information on the nutritional content of fast foods is available at the USDA’s web site at: http://www.nal.usda.gov/fnic/cgi-bin/nut_search.pl. Information may also be found on web sites for various fast food restaurants.

Snacking

Many people think snacking is unhealthy and leads to weight gain because many people don't eat healthy snacks! If you enjoy snacking and you want to maintain your body weight and perform well, then selecting healthy snacks is critical. Think through a typical day. How often and where do you usually snack? Are your snacks healthy or loaded with extra kcals? Many people snack on foods when they are bored and often don't realize how much food they have eaten. Snacks should not replace a meal. Avoid these situations by being aware of your behaviors, food selection, and kcal consumption. Follow these tips to help promote healthy snacking!



- ◆ Stock foods such as plain popcorn, dried fruits, whole grain crackers, pretzels, unsweetened fruit juices, fresh produce, and low-fat yogurt.
- ◆ Snack on fresh fruits or vegetables with low-fat peanut butter or low-fat cheese spreads. (Fruits and vegetables provide dietary fiber.)
- ◆ Make a snack mix with wheat, rice, and corn ready-to-eat cereals.

There can be times when you just don't want to be healthy, you just want to satisfy a sweet tooth or craving. When this happens, be selective of the sweets you eat. If you must have a candy bar or other sweets, choose one that is high in CHO and as low in fat as possible. Eating one now and then will certainly not hurt you!



Many people replace high-fat snacks with the low-fat alternatives in an attempt to lower their total fat intake. Be cautious, however, because even low-fat snacks can lead to weight gain and increases in body fat when too many kcals are consumed. Remember: low-fat does not mean low kcals, so do not over eat!

Nutrition Throughout Life

The guidelines put forth in this chapter can be applied to everyone throughout their lifetime. Identify the times in your life when your energy needs are changing and adjust your diet appropriately to maintain your health and fitness. Examples of when energy requirements may be reduced are decreases in physical activity either from a change in job description or

a change in your exercise habits. Examples of when energy requirements may rise are increases in physical activity or during pregnancy and breast feeding. Each individual should eat the appropriate number of servings from each food group based on their EER. Refer to [Chapter 1](#) and [Table 3-2](#) for the recommended daily kcals and the number of servings from each food group to meet various kcal requirements. Seek the help of a Registered Dietitian if you have any concerns about your diet or the diet of a family member. Even if you do not cook your meals or if you eat in the galley, you can make healthy food choices (see [Appendix A](#)). When eating in the galley, ask for the **Healthy Navy Options** menu items (available in the larger galleys and ships). Make high-fat foods the exception rather than the rule in your diet.

