

Chapter 7

Proteins & Fats

Balancing Fats, Carbohydrates and Proteins

Directions: Read the following selection. Then answer the questions under *Thinking Critically*, and complete the activities as directed by your teacher.

Health experts recommend that of the total calories consumed each day, 30 percent or less should come from fats; 60 percent or more should come from carbohydrates, mostly complex; and 12–15 percent should come from proteins. How closely does your eating plan fit this pattern? Follow the procedure described here to find out.

Keep a Food Record

To check the balance of fats, carbohydrates, and proteins in your diet, begin by keeping a food record. For one day, write down all the foods you eat, including the amount of each one. Record amounts as accurately as possible, in cups or ounces. You may have to estimate amounts in dishes with combined ingredients. Save any food labels for later reference.

Find the Day's Totals

Using an Excel® spreadsheet or other spreadsheet software:

- ◆ Create a spreadsheet that lists each food you ate along the left side. Put the following column headers across the top—calories, fats, carbohydrates, and proteins. Enter the number of calories for each food, as well as the grams of fat, carbohydrate, and protein. Use food labels or a nutrient chart to find this information. Be sure to take serving sizes into consideration. If you ate two servings, you consumed twice as many calories as shown on the food label or in the chart.
- ◆ Create a formula(s) to add the numbers in each column to find the totals for the day.

- ◆ Create a formula(s) that multiplies the total fat grams for the day by 9.
(Since each gram of fat has 9 calories, this gives the total number of calories from fat for the day.)
- ◆ Create a formula that multiplies the total grams of carbohydrates for the day by 4.
(Since each gram of carbohydrate has 4 calories, this gives the total number of calories from carbohydrates for the day. Do the same for protein, which also has 4 calories per gram.)
- ◆ Create a formula to divide the total number of calories from fat by the total number of calories for the day. Multiply by 100.
(This gives the percentage of calories from fat. Repeat for carbohydrates and proteins.)
- ◆ Create a 3-D chart from the spreadsheet data that includes a chart title, legend, X-axis titles, and Y-axis titles.

The Results

Write an analysis about your results. Describe your strengths. Describe any eating habits you need to change. How will you accomplish the changes? For example, if you calculated a percentage of calories from fat that was 30 percent or less, you succeeded in making low-fat food choices. Compare the percentages of carbohydrates and proteins to the recommended amounts. Few people make detailed calculations such as these every day. However, an occasional checkup can help you stay on track for a lifetime of good health. Monitor your progress in a month. Compare your results.

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Thinking Critically

1. There is a link between cholesterol levels and heart disease. How can you reduce your risk of developing heart disease?

2. Most people in the United States eat more grams of protein each day than needed for optimal health. Why is this so?

3. What foods contribute to your protein intake on a daily basis? Are you over the optimal grams of protein? What adjustments can you make, giving examples?

4. Would you recommend that an athlete take a protein supplement? Why or why not?

For Further Study

- ◆ Analyze a one-week elementary school lunch program menu. (1) Create a spreadsheet as described on the previous page to record calories, fats, carbohydrates, and protein percentages for each day. (2) Check your calculations with the guidelines for the National School Lunch Program. What comparisons can you make? Would you make recommendations for low-fat food choices? Why or why not?
- ◆ Plan a two-day menu for the school lunch program. (1) Create a spreadsheet as described on the previous page to record calories, fats, carbohydrates, and protein percentages for each day. (2) Check your percentages with the guidelines for the National School Lunch Program. If necessary, make adjustments to meet the guidelines. Present your menu to your instructor, sharing the rationale for your menu plan. If possible, then share your menu with the school foodservice director.
- ◆ Suppose a fast-food meal includes a cheeseburger (30 grams of fat) and medium fries (22 fat grams), totaling 52 grams of fat. What percentage of the daily fat limit of 65 grams is supplied by this meal? What dilemma does this present? What suggestions would you make for the remainder of the day? Write a brief summary of your conclusions and submit the summary to your teacher.