



Lab A8-6 Setting Goals for Protein, Fat, and Carbohydrate Intake

To meet the recommendations for nutrient intakes, begin by setting overall daily goals for protein, fat, and carbohydrate intake.

Estimating Daily Energy Requirements

If your weight is stable, your current daily energy intake is the number of calories you need to consume to maintain your weight at your current activity level. If you completed Lab 8-2 in the text or another activity that involved careful tracking of daily food intake, you can use the value you calculated for total daily calorie intake as your approximate daily energy requirement. (You can complete this analysis by hand, by using nutrition analysis software, or by using one of several Web sites that perform this type of analysis; for example, visit the USDA Center for Nutrition Policy and Promotion [<http://www.usda.gov/cnpp>] and click on “Interactive Healthy Eating Index.”)

You can also estimate your daily energy needs using the following formula:

- (a) Add zero to the end of your present weight (in pounds).

$$\frac{\text{_____}}{\text{(current weight)}} \text{ lb, add a zero on the end} = \text{_____}$$

- (b) If you are a woman, add your weight again to the value from step (a) to get your estimated resting metabolic rate (RMR). If you are a man, add twice your weight to the number from step (a).

$$\frac{\text{_____}}{\text{[result from step (a)]}} + \left[\frac{\text{_____}}{\text{(current weight)}} \times (1 \text{ for women, } 2 \text{ for men}) \right] = \text{_____} \text{ calories for RMR}$$

- (c) Multiply the number obtained in step (b) by 30% to obtain an estimate of the calories you need for your daily activities.

$$\frac{\text{_____}}{\text{[result from step (b)]}} \times 0.30 = \text{_____} \text{ calories for daily activities}$$

- (d) Add your RMR from step (b) to your daily activity number from step (c) to obtain an estimated daily calorie intake.

$$\frac{\text{_____}}{\text{[result from step (b)]}} + \frac{\text{_____}}{\text{[result from step (c)]}} = \text{_____} \text{ calories/day}$$

Example: A woman who weighs 125 pounds.

- (a) 125, add a 0 on the end = 1250
 (b) $1250 + (125 \times 1) = 1375$ calories for RMR
 (c) $1375 \times 0.30 = 412$ calories for daily activities
 (d) $1375 + 412 = 1787$ total daily calories

Setting Intake Goals for Protein, Fat, and Carbohydrate

Once you have an estimate of your daily energy (calorie) needs, the next step is to set goals for daily intake from the three classes of macronutrients—protein, fat, and carbohydrate. You can allocate your total daily calories among the three classes of macronutrients to suit your preferences; just make sure that the three percentage values you select total 100% and that your values fall within the Acceptable Macronutrient Distribution Ranges (AMDRs) set by the Food and Nutrition Board of the National Academies. For example, you may choose targets of 15% of total daily calories from protein, 35% from fat, and 50% from carbohydrate. Fill in your percentage goals in the chart below:

Nutrient	AMDR (% of total daily calories)	Individual goals (% of total daily calories)
Protein	10–35%	_____ %
Fat	20–35%	_____ %
Carbohydrate	45–65%	_____ %
		100%

(over)

LAB A8-6 (continued)

To translate your own percentage goals into daily intake goals expressed in calories and grams, multiply the percentages you've chosen by your total calorie intake and then divide the result by the corresponding calories per gram. (Use the total daily calorie goal you calculated in the first part of this worksheet and the percentage goals you set in the table above.) For example, a fat limit of 35% applied to a 2200-calorie diet would be calculated as follows: $0.35 \times 2200 = 770$ calories of total fat; $770 \div 9$ calories per gram = 86 grams of total fat. (Remember, fat has 9 calories per gram and protein and carbohydrate have 4 calories per gram.)

Nutrient	Total calories	Macronutrient percentage goal (expressed as a decimal)	=	Calories per day of macronutrient	÷	Calories per gram of macronutrient	=	Grams per day of macronutrient	
Protein	_____	×	_____	=	_____ calories/day	÷	4 calories/gram	=	_____ grams/day
Fat	_____	×	_____	=	_____ calories/day	÷	9 calories/gram	=	_____ grams/day
Carbohydrate	_____	×	_____	=	_____ calories/day	÷	4 calories/gram	=	_____ grams/day
<i>Sample for fat</i>	2200	×	0.35	=	770 calories/day	÷	9 calories/gram	=	86 grams/day

Summary of Goals

Total Daily Energy Intake: _____ calories per day

Macronutrients: Protein, Fat, Carbohydrate

Macronutrient	Percent of total daily calories	Calories per day	Grams per day
Protein	_____ %	_____ calories/day	_____ grams/day
Fat	_____ %	_____ calories/day	_____ grams/day
Carbohydrate	_____ %	_____ calories/day	_____ grams/day

To determine how close you are to meeting your personal intake goals, keep a running total over the course of the day. For prepared foods, food labels list the number of grams of fat, protein, and carbohydrate; the breakdown for popular fast-food items can be found in an appendix of your text. Nutrition information is also available in many grocery stores, in published nutrition guides, in nutrition analysis software, and online. By checking these resources, you can track the total grams of fat, protein, and carbohydrate you eat and assess your current diet.