

For this assignment, you will keep a “nutrition diary” for two days and analyze your diet for a variety of components. You will be graded on thoroughness, accuracy, and adherence to instructions. This assignment will be moderately time-consuming, so you should start on it promptly. The assignment comprises 3 homework scores, one score (10 points) for each day of the diary and one score (10 points) for the analysis. It is due in lab the week of 2/27, but may be turned in earlier. All materials must be typed.

To determine your food guidelines, visit

<http://www.mypyramid.gov/mypyramid/index.aspx> and complete the interactive “My Pyramid Plan.” You will enter your age, sex, and activity level; the website will return your total recommended caloric intake and recommended consumption of major food groups based on that. You can find the same information in written form from the Dietary Guidelines for Americans 2005 on-line document at <http://www.health.gov/dietaryguidelines/dga2005/document/>.

**Instructions** (note that “calories” below are really kcal – but that won’t matter for your analysis):

1. Keep a complete and detailed record of all the food you eat for two days (1 weekday and 1 Saturday or Sunday). “Detailed” means that you include all snacks, drinks with added sugar and fats, and cooking oils, and estimate, as best you can, quantities of everything. You will report and analyze your information by following the instructions below.
2. For each item you eat, determine the following (from nutrition labels, books, or on-line sources) and enter the data in a table (follow the example included at the end of this handout):
  - a. Total calories
  - b. Total fat grams
    - i. saturated fat grams
  - c. Cholesterol milligrams
  - d. Sodium mg
  - e. Total carbohydrate grams
    - i. sugar grams
    - ii. dietary fiber grams
  - f. Protein grams
3. For each day, calculate
  - a. your total caloric consumption
  - b. the percentage of total calories from saturated fat (calculate as  $\frac{\text{total saturated fat grams} \times 9 \text{ calories/gram}}{\text{total calories consumed}} \times 100$  to get % – a sample calculation is included in the example)

4. For each day, provide an itemized list (using the same table that you use above; see the example at the end of the handout) and total number of servings (using the 2005 Dietary Guidelines) you consumed of
  - a. fruits
  - b. vegetables
  - c. grains
  - d. meat
  - e. dairy
  - f. fats/oils not included in processed foods (i.e., salad dressings, cooking oils, butter on bread or potatoes, etc.)
  
5. Answer the following questions in complete sentences.  
According to the “My Pyramid” website or the 2005 Dietary Guidelines (Table 3, page 12, Chapter 2; <http://www.health.gov/dietaryguidelines/dga2005/document/> ) what is your recommended caloric intake? Explain (i.e., “I am a female in the age range 31-50 years old and meet the criteria for the “active” activity level.”) (1 point)
  - a. Was your average daily caloric consumption above or below the recommended intake? (1 point)
  - b. Did your fruit and vegetable consumption meet the 2005 Dietary Guidelines based on your recommended caloric intake? Explain briefly (i.e., how many servings of each did you eat, and was it higher or lower than the recommendations). (1 point)
  - c. Did half of your grain servings consist of whole grains? More than half? Less than half? (1 point)
  - d. Did your diet exceed the recommendations for cholesterol consumption? Be specific (compare what you consumed to the recommended consumption). (1 point)
  - e. Did your diet exceed the recommendations for sodium consumption? Be specific as above. (1 point)
  - f. Were you surprised (pleasantly or otherwise) about anything? Does the analysis prompt you to make changes in your diet? What changes, specifically, should you make? What changes do you think you will actually make? Be specific. (4 points)
  
6. In addition to the specific instructions above, follow the usual homework formatting guidelines (identifying information, honor code, etc.).
  
7. Homework is due in lab the week of 2/27. Early submission is encouraged. No late papers will be accepted!

**Where to find the information:**

1. Packaged food will have all this information on the package label.
2. Fast food restaurants will provide this information upon request. You can also check out their websites.
3. If you eat at one of the dining halls on campus, you should be able to get nutritional information from one of the dining hall managers. It may not be available for all menu items, in which case you will have to estimate the contents and analyze them separately using the on-line resources.
4. The on-line Nutrition Analysis Tools and System (<http://nat.crgq.com/mainnat.html>) calculates nutrition information for items you report. To help you estimate serving sizes, use these approximations:
  - a. Cheese: 1.5 ounces = about 4 stacked dice
  - b. Fruit, cooked rice, pasta, cooked veggies:  $\frac{1}{2}$  cup =  $\frac{1}{2}$  tennis ball
  - c. Raw, leafy vegetables: 1 cup = 1 tennis ball
  - d. Cooked lean meat, ham, poultry, fish: 2-3 ounces = 1 cassette tape or PDA.
5. Other on-line sources are
  - a. <http://www.wehealnewyork.org/healthinfo/dietaryfiber/fibercontentchart.html> – a fiber content chart for many foods – this helps when the Nutritional Analysis Tools and System doesn't include fiber content.
  - b. <http://www.mcgees.com/kitchen/metric.htm> – a handy metric conversion chart for converting ounces to grams and back again

**Evaluation**

You will be evaluated based on accuracy, thoroughness, and adherence to guidelines. Each day's food entry will be worth 10 points; 1 point will be deducted for each error in your entries and calculations and standard homework deductions will be applied as appropriate. The question section (#5 a-f) is worth 10 points, with point values assigned as indicated above. Standard homework deductions will be applied as appropriate.

**Sample data & analysis**

Day 1									
Item	Cal	Total fat g	Saturated fat	Cholesterol mg	Sodium mg	Total carb g	Sugar g	Dietary fiber	Protein
1 C cereal	180	1	0.5 g	0	270	38	7	11	9
1/4 C soy milk	25	1	0	0	95	10	9	1	6
1/4 C fruit bits	120	0	0	0	20	29	24	2	1
1 Balance bar	200	6	3	<5	160	22	18	<1	15
2 Tbs half and half (with coffee)	40	3	2	15	25	1	1	0	0
1 Tbs sugar (with coffee)	45	0	0	0	0	4	4	0	0
2 slices bread	180	2	0	0	380	36	6	6	8
2.7 oz can tuna	90	1	0	35	350	0	0	0	20
1 med apple	67	0	0	0	0	17	?	3	.24
1 C low-fat yogurt	140	1.5	1	5	100	25	23	2	7
1 veggie burger	150	4.5	0.5	0	470	16	2	5	11
2 C mixed baby greens	7.5	0	0	0	70	4	0	2	2
2 Tbs ranch dressing	130	13	2.5	<5	280	3	2	0	0
15 Kashi crackers	130	3	0	0	160	22	3	2	3
Total	1505	36	9.5	55	2,380	226	99	34	82
Total calories from fat	36 g fat x 9 calories/g = 324 fat calories / 1505 total calories = .21 x 100 = 21% calories from fat								
Fruit servings	1/4 C fruit bits + 1 med apple = 1/2 + 1 = 1.5 servings								

Vegetable servings	2 C greens + 1 veggie burger = 2 + 1 = 3 servings								
Grain servings	1 C cereal + 2 slices bread + 15 crackers = 1.9 + 2 + 1 = 5 servings								
Meat servings	2.7 oz tuna = ~ 1/2 serving								
Dairy servings	2 Tbs half and half + 1 C yogurt = 1/8 + 1 = 1.125 servings								
Fats/oils	2 Tbs ranch dressing = 2 servings								
Day 2 (enter the 2 <sup>nd</sup> day's data like the first; create another section like this for the 3 <sup>rd</sup> day's data)									
Item	Cal	Total fat g	Saturated fat	Cholesterol mg	Sodium mg	Total carb g	Sugar g	Dietary fiber	Protein