

Diet Analysis Assignment

60 Points

This assignment gives you a wonderful opportunity to become aware of your eating and the nutrients you consume. You will be graded on the quality of your work, not the nutritional quality of your diet. The purpose of this assignment is to help you make the connection between your diet and what you learned in class. The assignment is divided into 3 parts. **All 3 parts are due on the last day of class lecture AND each sub-part must be completed and shown to your instructor by the dates listed on the green sheet.** When you show your assignment progress of Part 1 or 2 by the due date, you receive 5 of your points for that section. If you do not, you will lose 5 points for that part of the assignment.

Part 1: Food Record (15 points)

You will write down everything you eat and drink for 3 days. Be as specific as possible by looking at serving sizes on labels or measuring for accurate portions. You may want to pick up nutrition info at restaurants or fast food restaurants to help you with this part of the project.

Please bring in your handwritten food record by the Part 1 due date to receive 5 points.

You are graded on:

- Following instructions for recording your food record
- Use of appropriate portion sizes

Part 2: Computer Analysis (15 points)

You will do a nutrient analysis of your 3-day Food Record using a free Internet-based nutrient analysis program – www.fitday.com. **Please bring in a print out of the two reports by the Part 2 due date to receive 5 points.**

You are graded on:

- Calories Eaten Report
- Nutrition as Percent RDA Report

Part 3: Understanding your Diet (30 points)

Using the “reports” section of the computer program and your 3-day food record, you will answer questions about your diet.

You are graded on:

- How thoroughly you answer the questions
- Your grammar, spelling and organization of the information.

What you will turn in the last day of class lecture

Part 1: Your handwritten Food Records (all pages)

Part 2: Your Fitday Reports (2 pages).

- “Calories Eaten” (Pie Chart)
- “Nutrition as Percent RDA”

Part 3: Typewritten answers to questions. (This section can be answered in outline form). You must use complete sentences.

Part 1: The Food Record

Record everything that you eat and drink for 3 days on the Food Record. The days don't have to be in a row. It's most important that they are "typical" days and represent how you commonly eat. Please write legibly. Use a new line for each new food.

1. Every time you eat or drink something (including water) write down the *TYPE* and *AMOUNT* of food and beverage that you consumed on the form.

- Be as detailed as you can. (i.e., "batter fried chicken drumstick with the skin"....not just "chicken").
- Do not wait until the end of the day to try to remember what you ate previously. Record what you eat throughout the day.
- **Include ounces of water** you consume. You will not need to include this in the computer analysis but you will need to know this for Part 3.
- Remember to include sugar and cream added to coffee or tea; butter, margarine, jam or jelly on toast or sandwiches; sauces and gravy; salad dressings; mayonnaise, mustard, and relish. Include coffee, tea and diet sodas.
- **When describing the foods you eat, consider:**
 - Meat, fish, poultry, dairy: Make note if the meat, fish or poultry is baked, broiled, pan fried, deep fried, etc. If it was cooked in oil, try to find out the type of oil it was cooked in. If it is prepared and eaten with a sauce, gravy or dressing, write that down as well. For milk, yogurt and cottage cheese, note the % fat from the label.
 - Grains, cereals, and breads: Name the type of bread (100% whole wheat, white) and the type of cereal or grain (white/brown rice, Honey Nut Cheerios, etc.).
 - Fruits and vegetables: Write down if it is fresh, frozen, canned, and canned in juice, or syrup; if it is raw, or cooked. If it is cooked with added fat or oil, write down the type of oil/fat and approximate amount.
 - Oil, margarine, salad dressings: Name the type of oil you used. Read the label and find out what type of oil it is (e.g. canola oil, olive oil). For mayonnaise and salad dressings, note if it is low calorie, reduced fat, low fat or nonfat.
 - Snacks and Sweets (chips, crackers, cookies, etc.): Note if it is regular or reduced fat.
 - Fast Foods: Write down what you had and include the name of the establishment.
 - Restaurants: Look closely at what you are served and try to record as accurately as possibly what you ate. Ask the waiter/waitress for clarification if necessary.

2. Estimating Portions Eaten

- Record the amounts of food eaten in common portions sizes: cups, teaspoons (tsp), tablespoons (TB), slices/pieces, fluid ounces, etc. (there are 3 level tsp in 1 level TB)
- If you have measuring cups and spoons, measure a few foods to get an idea of common measurements. Learn what 1 cup of food really is ☺
- 1 cup = ½ pint = 8 fluid ounces (*but does not necessarily weigh 8 ounces*). Be careful: "ounces" can refer to a weight or to a volume. Be sure you use the correct measurement. One 8 fl oz bowl (volume) of cold cereal actually weighs about 1 ounce. Only use ounces for weights (for things like meat, cheese, packaged foods). For volumes of liquids and other foods (cereal, rice, vegetables) use cup, ½ cup, 2 cups, etc, or for smaller quantities, tablespoon/teaspoon, NOT ounces.

- If the food came from a package, look at the serving size from the label. But figure out if that is the quantity you actually ate. You might not have eaten what the package designates as a “serving”.
- **Do not** write “large bowl” or “small piece”. If possible, measure to see how much it is. Otherwise, try to estimate a quantity as accurately as you can.
- Record the amount that *you actually ate*. For example, if you pan fried a piece of chicken and you put 2 TB corn oil in the pan, this does not mean you ate 2 TB of oil—much of the oil remained in the pan. You would need to try to estimate the amount that you actually ate. Similarly, if you sautéed a large quantity of vegetables, putting 2 TB of oil in the pan and the vegetables absorbed all of the oil—none was left in the pan-- but you ate ¼ of the food that you prepared, you consumed about ¼ of 2 TB of oil (½ TB).
- The following visuals may help you estimate portion sizes:
 - 1 cup dry cereal – 4 golf balls
 - 2 ounce bagel – 1 hockey puck
 - 1 teaspoon vegetable oil – 1 die
 - 3 ounces cooked meat – 1 deck of playing cards
 - 2 tablespoons – 1 ping pong ball

For more tips on estimating portion sizes, see **page 45** in your Nutrition Concepts and Controversies textbook.

3. In addition to what and how much you ate, every time you eat, include this additional information:

1. The time of day
2. How you are feeling right before you eat (bored, stressed, tired, happy, mad, frustrated, excited, anxious, relaxed, etc.) OR why you ate (“not hungry but felt like eating”, “out with friends who offered me dessert”, “ate out of habit”)

Part 2: The Computerized Analysis

Go to the website (<http://www.fitday.com>) and register—it is free. Give yourself a username and password. Input your profile information.

- Have your Food Record with you when you begin. Follow the instructions in the purple box on the “Foods” tab at the top. Begin to input the foods and their quantities. (The day that you begin inputting will be the date on FitDay. It does not have to match the date that you recorded your food intake.) Type in the name of the food where it says “Search”. Be sure to spell words correctly! Click on the “Search” button, or press enter. The program now gives you the choices in its database that match the word (food) you entered.
- Sometimes you need to search by a different name. If you search for “bread” you’ll get too many choices. But if you type in a very specific type of bread, it may tell you it doesn’t have anything that matches. Be prepared to experiment, typing in different words to see what you get. Typing in “oats” vs “oatmeal” gives you different lists. Typing in “egg” vs. “eggs” even gives you different lists!
- Once you have a reasonable list, look through the list and try to find the food that closely matches what you ate. This is important! Read the words and amounts carefully.
- If you see a food that you think matches what you ate, don’t click on “add”. Instead click on the food itself (the name) and this will bring up the nutrition information for a default

portion size. You can look at this information and get a better sense if this particular selection matches what you ate.

- The food appears first as a default measurement. Sometimes this actually matches the portion you need. But usually it does not. So you must change the quantity to match what you ate. You do this by selecting the portion unit from the drop down menu—cup, tablespoon, ounce, slice, etc.—and by typing in the number of servings; that is the number of cups, tablespoons, ounces, slices, etc. **Enter fractions as decimals (.5 for ½; .25 for ¼, etc.)** If you change the portion size, then click on “refresh nutrients” and the nutrition information will be displayed for the new portion.
- If you are satisfied with this food, click on “Add to Food Log”. That food, in that portion is now part of your computerized Food Record.
- If adjusting the serving size won’t make them match, and you cannot find a food that matches closely, then you can customize this food. Click on that button and change the nutrient information to match what is on your label. Do this if there are just a couple of nutrients that are slightly off.
- If you decide to add a “new food”, click on “new custom food” so that it is highlighted, and then click on the “Go” button. Then fill in the appropriate information, taken directly from the nutrition label. This new custom food will now be stored under custom foods so you can use it in the future. Make sure you enter a serving size that matches what a serving size is from the label. Be aware that there is a disadvantage to adding a “new food” - the food label does not include all of the vitamins and minerals. So by adding the new food, you underestimate nutritional content of that food.
- If at any time you don’t finish, just log off and at a later time, log back on, and go to the calendar and click on the date that you input your work (there is a little apple logo on the calendar days that foods have been entered) and your work will be on the screen for you to continue where you left off, make changes, etc. Your food list is stored by date.
- When done, look over your Fitday entries and compare them to your handwritten Food Records. Were all foods accounted for? Double check. Did you accidentally put in “rice pudding” instead of “rice”? Now is the best time to make corrections.
- Go to “Food Report” on the left menu (under More Info). You will print 2 reports that will analyze your 3 days of eating.
- For the first report, click on Carbs, Fat, Protein on left menu. You will see a colorful pie chart illustrating your calories. Print the “Calories Eaten” report in the “printer friendly” mode for visuals to appear. For second report, click on “more reports” on left menu bar. Print the “Nutrition as Percent RDA” report in “printer friendly” mode.
- You will show both these reports for your Part 2 check.

Part 3: Understanding your Diet

Answer the following questions according to information from your handwritten food record and computer analysis. Your answers to Part 3 need to be typed, double spaced with 12 point font.

A. Food Record:

1. Breakfast
 - a. How many days did you eat breakfast (some sort of food within 2 hours of awakening)?
2. Why you eat

- a. Look at the last column of your food record. What were your 3 most common reasons for eating?
3. Foods you depend on for nutrients
 - a. Are there 1-2 foods you ate every day?
 - b. What nutritional value do they provide?
4. Fluids
 - a. Approximately how many ounces of beverages did you drink each day?
 - b. Are there things you do that increase your need for fluids (caffeine, exercise, high protein or sodium diet, etc)?
 - c. How many ounces of fluids do YOU need each day? (weight (lbs) divided by 2 = oz of beverages/day).
 - d. Do you consume enough fluids (water, juice, tea, etc) to stay hydrated?
5. Omega 3
 - a. Over the 3-day period, how many times did you choose foods with omega 3 fatty acids?
 - b. Name 2 foods you like with omega 3 fatty acids.
6. Organics
 - a. Did you make any organic choices? Why or why not?

B. Computer Analysis/Carbohydrates, Fat and Protein

Look at your “Calories Eaten” report (pie chart) to answer the following questions.

1. Protein
 - a. What % of calories comes from protein?
 - b. On average, how many grams of protein did you eat?
 - c. How many grams of protein are right for you? (Remember the formula in the Protein lecture)
 - d. Are you high, low or just right?
 - e. Review your food record and determine if a majority of your protein came from plant protein or animal sources.
2. Fat
 - a. What % of calories comes from saturated fat?
 - b. The recommendation is to consume no more than 10% of calories from saturated fat. Is your saturated fat intake below or above 10%?
 - c. Add together the % of unsaturated fats. What % of your calories comes from unsaturated fat (healthy fat)?
 - d. Name 1 benefit of healthy (unsaturated) fats.
3. Carbohydrates
 - a. What % of your calories comes from carbohydrates?
 - b. On average, how many grams of carbohydrates did you eat?
 - c. How does this compare to the recommendations?
 - d. On average, how many grams of fiber did you eat?
 - e. How does this compare to the recommendation for fiber?
 - f. Name 5 foods you like that are good sources of fiber.

C. Computer Analysis/Vitamins and Minerals

Look at your “Total Nutrition” report to answer the following questions.

1. Vitamins and Minerals
 - a. Are there any nutrient intakes that are below 75% of the RDA?
 - b. If so, please choose 4 nutrients your diet is low in and name 2-3 foods you would consider eating that are good sources for each nutrient.
 - c. Do you think the calculation is a computer analysis error or do you eat few foods that supply this nutrient?
2. Supplements
 - a. Do you take a supplement that includes these nutrients?
 - b. What would you prefer, a supplement or increasing food intakes. Please explain your answer.

D. Your Perspective:

1. What was most surprising about YOUR diet analysis?
2. Describe 2 ways that YOUR eating promotes YOUR health. Explain the benefits.
3. Describe 2 ways that YOUR eating isn't health promoting. How would you benefit from changing this? How might you go about modifying your diet to make it healthier? Make specific suggestions that you would consider trying. When making modification suggestions, consider the following:
 - **A change in serving size.** For example: “have 1 candy bar instead of 2”, “have 4 oz instead of 8 oz of steak”
 - **Substitution of a healthier food.** For example: “1% low fat milk instead of whole milk”; “have broiled salmon instead of deep fried fish sticks”
 - **Elimination of a food.** For example: “omit the bag of chips with lunch”
 - **Addition of a food.** For example: “add avocado to my salad with dinner”

What you will turn in on the last day of class lecture

Part 1: Your handwritten Food Records (all pages)

Part 2: Your Fitday Reports (2 pages). Click on “printer friendly” for graphics to appear.

- “Calories Eaten” Report (Pie Chart)
- “Nutrition as Percent RDA” Report

Part 3: Typewritten answers to questions. (answered in outline form). You must use complete sentences.

Please staple all parts together and include your name, date and class day on top page.

Food Sources of these Vitamins and Minerals

Vitamin A	Carrots, apricots, cantaloupe, spinach and other green leafy vegetables, broccoli, red peppers, butternut squash, sweet potatoes, pumpkin, mangoes
Thiamin	Whole/ enriched grains, fortified cereals, pork products, liver, beans, nuts
Riboflavin	Dairy products, whole grains, enriched grains, fortified cereals
Niacin	Milk, eggs, poultry, tuna, liver, enriched grains, fortified cereals
Vitamin B ₆	Green leafy vegetables, meat, poultry, fish, meats, bananas, watermelon, rice, potatoes
Vitamin B ₁₂	Found naturally only in animal products: meat, fish, poultry, dairy products, eggs. Also in some fortified foods (read the label)
Folate	Green leafy vegetables, beans, seeds, liver, orange juice, enriched grains, fortified cereals
Vitamin C	Citrus fruits, broccoli, red peppers, snow peas, Brussel sprouts, cantaloupe, tomatoes, strawberries, watermelon, papayas, mangoes, kiwi
Vitamin D	Fortified milk, fortified cereals, egg yolks, liver, fatty fish, some fortified juices and cereals (read the label)
Vitamin K	Cabbage, broccoli, leafy green vegetables, milk
Vitamin E	Plant oils, mayonnaise, nuts, seeds, green leafy vegetables, liver, eggs, avocados, sweet potatoes, tofu
Calcium	Milk, yogurt, cheese, calcium fortified orange juice, calcium fortified soy, milk, sardines/salmon with the bones
Iron	Beef, fish, beans, dried fruits, enriched grains, fortified cereals, tofu, clams, liver, parsley, artichokes
Magnesium	Nuts, legumes, whole grains, dark green leafy vegetables, chocolate, cocoa, halibut, tofu
Phosphorus	Meat, poultry, fish, eggs, milk
Potassium	Most fruits and vegetables, beans, milk, yogurt
Zinc	Meat, fish, poultry, whole grains, oysters, crab, turkey dark meat, yogurt, cheese, beans